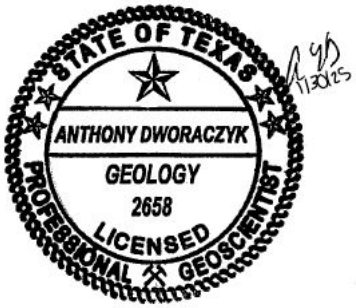
2024 Annual Groundwater Monitoring and Corrective Action Report

Limestone Electric Generating Station, Jewett, Texas

CCR RN 115
Landfill Unit (Unit 004)



January 31, 2025

Prepared For
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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), 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 Landfill (Unit 004) CCR unit located at the Limestone Electric Generating Station (Station) on behalf of NRG Texas Power, LLC (NRG). The Landfill (Unit 004) was the only CCR unit in operation at the Station during 2024. This Annual Report also provides the following information:

- The groundwater monitoring systems for the Landfill CCR unit operated under detection monitoring at the start and end of 2024; and
- Potential statistically significant increases (SSIs) of Appendix III CCR constituents identified above background in groundwater and provides the alternative source demonstrations (ASDs) addressing the potential SSIs that were successfully completed during 2024.

In conclusion, this Annual Report contains the information required pursuant to 30 TAC §352.901 and 30 TAC §352.902 of the TCEQ CCR Permit Program and TCEQ Draft Technical Guidance No. 32. 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 Landfill (Unit 004) 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 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,

- Both semi-annual groundwater detection monitoring events 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,
- Four new monitoring wells (MW-47, MW-48, MW-49, and MW-50) were installed in December 2023 and added to the Landfill CCR Unit monitoring well network, to provide spacing per guidance between monitoring wells along the southwestern boundary of the Landfill. These wells will be sampled quarterly during 2025 to develop a background water quality database, and the samples will be analyzed for both the Appendix III and Appendix IV CCR constituents,
- Statistical analysis of the four new monitoring wells (MW-47, MW-48, MW-49, and MW-50) will be conducted in December 2025 following receipt of the final background sampling event data, 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 for the Landfill CCR unit.

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 Landfill (Unit 004) CCR unit operated pursuant to the requirements of the TCEQ CCR Permit Program for the entirety of 2024.

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 unit(s) 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* for the Landfill (Unit 004) CCR unit located at the Limestone Electric Generating Station (Station) on behalf of NRG Texas Power, LLC (NRG) in accordance with 30 TAC §352.901 and 30 TAC §352.902 of the TCEQ CCR Permit Program and TCEQ Draft Technical Guidance No. 32.

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 Landfill (Unit 004) is not currently subject to corrective measures or corrective 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 northwest of Jewett, near the borders of Limestone, Freestone, and Leon Counties, Texas (see Figure 1-1). The Station is bisected by Farm-to-Market Road 39 (FM39) with the electricity generating portion of the Station located to the west of FM39 in Limestone County and a solid waste disposal area (SWDA), which includes the Landfill (Unit 004) located to the east of FM39. 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 active CCR unit per the TCEQ CCR Permit Program:

- Landfill Unit (Unit 004).

The Landfill is located east of FM39 in the northern portion of the Station. The Landfill is located to the north of the intermittent Lynn Creek. The Landfill was constructed in 1980 and is used for the final placement of CCR. The Landfill is divided into multiple areas for organization purposes. The western half of the landfill has reached capacity and was capped prior to the effective date of both the Federal CCR Rule on October 19, 2015, and the TCEQ CCR Permit Program. CCR is currently being placed at the southern portion of the landfill.

The location of the Landfill is shown on Figure 1-2.

Section 2
Groundwater Monitoring System and Hydrogeology

2.1 Groundwater Monitoring Systems

The groundwater monitoring system for the Landfill CCR unit at the Station consists of a total of 14 monitoring wells installed into the uppermost aquifer, which are described in the subsections below. Four additional wells: MW-47, MW-48, MW-49, and MW-50; were installed during December 2023 and incorporated into the monitoring well network. The locations and identification numbers for the background (or upgradient) and downgradient groundwater monitoring wells that are part of the groundwater monitoring program are shown on Figure 2-1.

2.1.1 Landfill (Unit 004)

The groundwater monitoring system for the Landfill consists of 14 monitoring wells (MW-1, MW-2, MW-17, MW-18, MW-19, MW-20, MW-21, MW-22, MW-27R, MW-28R, MW-47, MW-18, MW-49, and MW-50) screened into the uppermost aquifer (see Figure 2-1). Monitoring wells MW-27R and MW-28R are located hydraulically upgradient of the Landfill and monitor background quality in the uppermost aquifer. The remaining eight wells (MW-1, MW-2, MW-17, MW-18, MW-19, MW-20, MW-21, MW-22, MW-47, MW-48, MW-49, and MW-50) are located downgradient of the Landfill and monitor the quality of groundwater in the uppermost aquifer passing beneath the waste boundary of the Landfill.

Four new monitoring wells (MW-47, MW-48, MW-49, and MW-50) were installed in December 2023 and added to the Landfill CCR Unit monitoring well network, to provide spacing per guidance between monitoring wells along the southwestern boundary of the Landfill. These wells will be sampled quarterly during 2024 and 2025 to develop a background water quality database, and the samples will be analyzed for both the Appendix III and Appendix IV CCR constituents.

2.2 Semi-annual Detection Monitoring Sampling

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

The first half 2024 semi-annual detection monitoring event was conducted in March 2024, with the second half 2024 semi-annual detection monitoring event being performed in September 2024. Monitoring wells MW-47, MW-48, MW-49 and MW-50 were also sampled in quarter two 2024 (June) and quarter four 2024 (December) to develop a background water quality database.

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 were noted in the monitoring wells during the 2024 semi-annual detection monitoring events.

2.2.2 Quarterly Background Detection Monitoring

A total of eight quarterly background monitoring events were performed beginning in the third quarter of 2019 through the second quarter of 2021 for the 10 monitoring wells installed during that time period. The quarterly background samples were analyzed for both the Appendix III and Appendix IV Federal CCR Rule parameters. This background data set was used for comparison to 2024 semi-annual sampling events.

Four new monitoring wells (MW-47, MW-48, MW-49, and MW-50) were installed in December 2023 and added to the Landfill CCR Unit monitoring well network, to provide spacing per guidance between monitoring wells along the southwestern boundary of the Landfill. These wells will be sampled quarterly during 2024 and 2025 to develop a background water quality database, and the samples will be analyzed for both the Appendix III and Appendix IV CCR constituents. The first four quarterly events were completed in 2024 during March (first semi-annual event), June (second quarter), September (second semi-annual event) and December (fourth quarter).

2.2.3 Semi-annual Detection Monitoring

The Appendix III field and laboratory analytical data collected during the March 2024 and September 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 (2021) to identify potential SSIs for the Appendix III data.

2.2.4 Analytical Laboratory

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

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

2.3 Laboratory Data Quality Review

Upon receipt of the March, June, September and December 2024 groundwater monitoring analytical data from the analytical laboratory, 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, June, September and December laboratory analytical data, analyzed by ALS, were complete and usable for the purposes of the CCR semi-annual detection monitoring program. 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 the Landfill CCR unit during each of the 2024 quarterly background and semi-annual detection monitoring sampling events prior to sample collection. These measurements are provided in Table 2-1. Groundwater potentiometric surface maps were developed for the March and September detection monitoring events to evaluate groundwater flow directions. The potentiometric surface maps are provided as Figures 2-2, and 2-3.

Groundwater is typically encountered at depths ranging from 2.27 (MW-01) to 30.35 (MW-28) feet below top of casing (btoc) for the Landfill groundwater monitoring system, with the overall direction of groundwater flow beneath and in the vicinity of the Landfill to the south-southeast.

Based on the 2024 detection monitoring groundwater elevation data, there does not appear to be significant seasonal changes in groundwater flow direction at the Landfill CCR unit. The calculated groundwater gradients were variable depending on lithology and ranged from

0.0040 to 0.0044 feet/feet at the Landfill. The average groundwater flow velocity beneath the Landfill was 15 feet/year.

2.5 Monitoring Wells Installed or Decommissioned

No monitoring wells were installed or decommissioned during 2024.

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 quarterly background and semi-annual detection monitoring performed during March, June, September and December 2024 for the Landfill. In addition, this Annual Report provides the previous monitoring data from 2022 and 2024. 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 Landfill CCR unit were performed during March 2024 and September 2024 and the samples were analyzed for the Appendix III detection monitoring constituents,
- The first and second half 2024 resampling detection monitoring events for the Landfill CCR unit were performed during March2024 and October 2024 and the samples were reanalyzed for select Appendix III detection monitoring constituents,
- The second and fourth quarter background monitoring events for the four new wells (MW-47, MW-48, MW-49, and MW-50) for the Landfill CCR unit were performed during June 2024 and December 2024 and were analyzed for the Appendix III and Appendix IV constituents,
- To perform the statistical analysis for the first half 2024 (March) and second half 2024 (September) 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 Landfill CCR unit for the March and September 2024 semi-annual detection monitoring events,
- The directions and apparent flow rate of groundwater were determined,
- Potential SSIs above background were identified for the Landfill CCR unit for the first 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 and that an ASD will be prepared, which was submitted to TCEQ during July 2024, and
- NRG notified TCEQ in December 2024 pursuant to the TCEQ CCR Permit Program that potential SSIs had been identified for the second half 2024 (September) semi-annual detection monitoring event and that the ASD is included with this report submitted in the first quarter of 2025.

The Landfill CCR unit remained in detection monitoring during 2024 based on the successful completion/submittal of written ASDs. No corrective action activities were performed for the Landfill CCR unit pursuant to the TCEQ Permit Program during 2024.

3.3 Problems Encountered and Resolution

During 2024, no problems were encountered in 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 September 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 (March 2024) semi-annual detection monitoring event were completed in March 2024. Select 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 §257.93(f)(3) of the Federal CCR Rule and 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 original 10 wells in 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 April 2024 for the March 2024 semi-annual detection monitoring event.

Four new monitoring wells (MW-47, MW-48, MW-49, and MW-50) were installed in December 2023 and added to the Landfill CCR Unit monitoring well network, to provide spacing per guidance between monitoring wells along the southwestern boundary of the Landfill. These wells will be sampled quarterly during 2024 and 2025 to develop a background water quality database, and the samples will be analyzed for both the Appendix III and Appendix IV CCR constituents. The first four quarterly events were completed in 2024 during March (first semi-annual event), June (second quarter), September (second semi-annual event) and December (fourth quarter). The new well SSIs were evaluated using the 2021 background data set until the remaining four quarters of data are collected from the new wells.

The results of the statistical analysis for the March 2024 semi-annual detection monitoring event for the Landfill are summarized in the following table. Four potential SSIs were identified for downgradient monitoring wells MW-02, MW-21 and MW-50. An ASD was performed during

2024 to evaluate the potential SSIs as discussed in Section 5.0, which is provided with the 2024 Annual Report. The ASD was also submitted to TCEQ during July 2024.

Table 4-1
Potential SSI – March 2024, Detection Monitoring, Landfill

ANALYTE	WELL	LTL	UTL	SAMPLE DATE	VALUE	UNIT
Downgradient Monitoring Wells						
Boron	MW-02	N/A	0.44	3/28/2024	1.24	mg/L
Sulfate	MW-02	N/A	890	3/28/2024	1,010	mg/L
Boron	MW-21	N/A	0.44	3/28/2024	0.724	mg/L
Boron	MW-50	N/A	0.44	3/28/2024	0.691	mg/L

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

4.2 September 2024 Semi-annual Detection Monitoring Event

Statistical analysis and identification of potential SSIs for the second half (September) 2024 semi-annual detection monitoring event was completed in October 2024. The statistical analysis was conducted in accordance with the revised Statistical Methods Certification (August 2018) using LTLs where applicable, and UTLs per §257.93(f)(3) of the Federal CCR Rule and the TCEQ CCR Permit Program.

The results of the statistical analysis for the September 2024 semi-annual detection monitoring event for the Landfill are summarized in the following table. Three potential SSI were identified for downgradient monitoring wells MW-21 and MW-50. An ASD was performed to evaluate the potential SSIs as discussed in Section 5.0, which is provided with this Annual Report.

Table 4-2
Potential SSI – September 2024, Detection Monitoring, Landfill

ANALYTE	WELL	LTL	UTL	SAMPLE DATE	VALUE	UNIT
Boron	MW-21	N/A	0.44	10/24/2024	0.656	mg/L
Boron	MW-50	N/A	0.44	9/12/2024	0.710	mg/L
Sulfate	MW-50	N/A	890	9/12/2024	1,210	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 first half (March) 2024, and the second half (September) 2024 semi-annual detection monitoring events. ASDs were prepared for all three semi-annual detection monitoring events that successfully documented that alternative sources or historical errors in statistical analysis were responsible for the potential SSIs observed. The first half (March) 2024 ASD was submitted to TCEQ during July 2024. The second half (September) 2024 ASD will be submitted to TCEQ with this Annual Report. The two ASDs are appended to this Annual Report.

Pursuant to §257.94(e)(2) of the Federal CCR Rule and 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, ASDs were completed and certified by a qualified Texas P.E. during 2024 per the Federal CCR Rule as follows:

- In July 2024, an ASD was certified for four potential SSIs identified for the Landfill CCR unit for the first half (March) 2024 semi-annual detection monitoring sampling event; and
- In December 2024, an ASD was certified for three potential SSIs identified for the Landfill CCR unit for the second half (September) 2024 semi-annual detection monitoring sampling event.

Pursuant to the TCEQ CCR Permit Program, ASDs successfully demonstrated alternative sources or issues with laboratory data analytical quality for the Landfill CCR unit. Therefore, the Landfill remained in detection monitoring during 2024. The ASDs for the two semi-annual detection monitoring events are discussed in the subsections below. The completed ASDs are provided in Appendix D.

5.1 Summary of ASDs

5.1.1 First Half (March) 2024

The first half (March) 2024 ASD was successfully completed for the Landfill during the July 2024. The results for the ASD for the first half (March) 2024 semi-annual detection monitoring sampling event is summarized below:

- March 2024. Four potential SSIs were identified. Boron was identified for downgradient monitoring wells MW-02, MW-21 and MW-50, and sulfate was identified for downgradient monitoring well MW-02. The following alternative sources were identified for the potential SSIs:
  1) Numerous historical and active natural gas wells and their associated well pads and surface pits are located immediately surrounding and within the footprint of the Landfill. Well pits associated with the natural gas wells contribute spent completion or workover fluids to groundwater that contain constituents that are also CCR Rule Appendix II detection monitoring constituents,
  2) As shown on the boring logs for the Landfill CCR groundwater monitoring network, lignite and shale seams that contain trace amounts of boron are present at the Landfill and several monitoring wells were installed into and screened across these seams,
  3) The Jewett lignite surface mine is located approximately 1.5 miles south of the Landfill, and
  4) Natural variations in groundwater geochemistry likely related to changes in pH, ion exchanges, ED, and/or salinity.

The ASD was submitted to TCEQ during July 2024 for review and approval by TCEQ.

5.1.2 Second Half (September) 2024

The second half (September) 2024 ASD was successfully completed for the Landfill during December 2024. The results for the ASD for the second half (September) 2024 semi-annual detection monitoring sampling event is summarized below:

- September 2024. Three potential SSIs were identified. Boron was identified at downgradient monitoring wells MW-21 and MW-50; and sulfate was identified for downgradient monitoring well MW-50. The following alternative sources were identified for the potential SSIs:

1) Numerous historical and active natural gas wells and their associated well pads and surface pits are located immediately surrounding and within the footprint of the Landfill. Well pits associated with the natural gas wells contribute spent completion or workover fluids to groundwater that contain constituents that are also CCR Rule Appendix III detection monitoring constituents;
2) As shown on the boring logs for the Landfill CCR groundwater monitoring network, lignite and shale seams that contain trace amounts of boron are present at the Landfill and several monitor wells were installed into and screened across these seams;
3) The Jewett lignite surface mine is located approximately 1.5 south of the Landfill;

4) Natural variations in groundwater geochemistry are likely related to changes in pH, ion exchanges, EC, and/or salinity; and
5) Various concentrations of Appendix III & IV constituents naturally occur in the native soils. This indicates that Appendix III & IV constituents have occurred naturally rather than anthropogenic in the groundwater beneath the site, impacting the groundwater geochemistry.

The ASD is submitted to TCEQ as part of this Annual Report for review and approval by TCEQ (see Appendix F).

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 Landfill CCR unit. The ASDs successfully demonstrated that alternative sources were responsible for the potential SSIs identified in groundwater for the first half (March) 2024 and second half (September) 2024 semi-annual detection monitoring events. Therefore, the Landfill CCR unit remained in the detection monitoring program at the start and end of 2024.

5.3 Transition Between Monitoring Programs

During 2024, the groundwater monitoring system for the Landfill CCR unit remained in detection monitoring. Therefore, there was no transition between detection and assessment monitoring programs for the Landfill CCR unit 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 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,
- Both semi-annual groundwater detection monitoring events 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,
- Four new monitoring wells (MW-47, MW-48, MW-49, and MW-50) were installed in December 2023 and added to the Landfill CCR Unit monitoring well network, to provide a minimum of a 600-foot spacing between monitoring wells along the southwestern boundary of the Landfill. These wells will be sampled quarterly during 2025 to develop a background water quality data base and the samples will be analyzed for both the Appendix III and Appendix IV CCR constituents, and
- Statistical analysis of monitoring wells MW-47, MW-48, MW-49 and MW-50 will be completed in December 2025 following receipt of all eight background sampling event data sets, 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 for the Landfill CCR unit.

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 of the TCEQ CCR Permit Program 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. 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 Landfill CCR unit were performed during March 2024 and September 2024 and the samples were analyzed for the Appendix III detection monitoring constituents,
- The first and second half 2024 resampling detection monitoring events for the Landfill CCR unit were performed during March and October 2024 and the samples were reanalyzed for select Appendix III detection monitoring constituents,
- To perform the statistical analysis for the first half 2024 (March) and second half 2024 (September) 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 Landfill CCR unit for the March 2024 and September 2024 semi-annual detection monitoring events,
- The directions and apparent flow rate of groundwater were determined,
- Potential SSIs above background were identified for the Landfill CCR unit for the first and second half 2024 semi-annual detection monitoring events,
- The second and fourth quarter background monitoring events for the four new wells (MW-47, MW-48, MW-49, and MW-50) for the Landfill CCR unit were performed during June 2024 and December 2024 and were analyzed for the Appendix III and Appendix IV constituents,
- 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 and that an ASD will be prepared, which was submitted to TCEQ during July 2024, and

- NRG notified TCEQ in December 2024 pursuant to the TCEQ CCR Permit Program that potential SSIs had been identified for the second half 2024 (September) semi-annual detection monitoring event and that NRG intends to prepare and submit an ASD to TCEQ with this Annual Report during the first quarter of 2025.

Based on the key activities performed during 2024, it is recommended that the Landfill (Unit 004) remain in semi-annual 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 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,
- Both semi-annual groundwater detection monitoring events 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,
- Four new monitoring wells (MW-47, MW-48, MW-49, and MW-50) were installed in December 2023 and added to the Landfill CCR Unit monitoring well network along the southwestern boundary of the Landfill. These wells will be sampled quarterly during 2025 to develop a background water quality data base and the samples will be analyzed for both the Appendix III and Appendix IV CCR constituents,
- Statistical analysis of the eight background sampling events for monitoring wells MW-47, MW-48, MW-49, and MW-50 will be conducted in December 2025 following the final background sampling event, 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 for the Landfill CCR unit.

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, Limestone Electric Generating Station, Jewett, Texas.

ERM, CCR Statistical Analysis Plan, October 2017, Limestone Electric Generating Station, Jewett, Texas.

ERM, Annual Groundwater Monitoring and Corrective Action Report, January 31, 2018, Limestone Electric Generating Station, Secondary E Pond Unit (Unit 003), Jewett, 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, Limestone Electric Generating Station, Secondary E Pond (Unit 003) and Landfill (Unit 004), Jewett, Texas.

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

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TRC, 2021 Annual Groundwater Monitoring and Corrective Action Report, January 31, 2022, Limestone Electric Generating Station, Landfill (Unit 004), Jewett, Texas.

TRC, 2022 Annual Groundwater Monitoring and Corrective Action Report, January 31, 2023, Limestone Electric Generating Station, Landfill (Unit 004), Jewett, Texas.

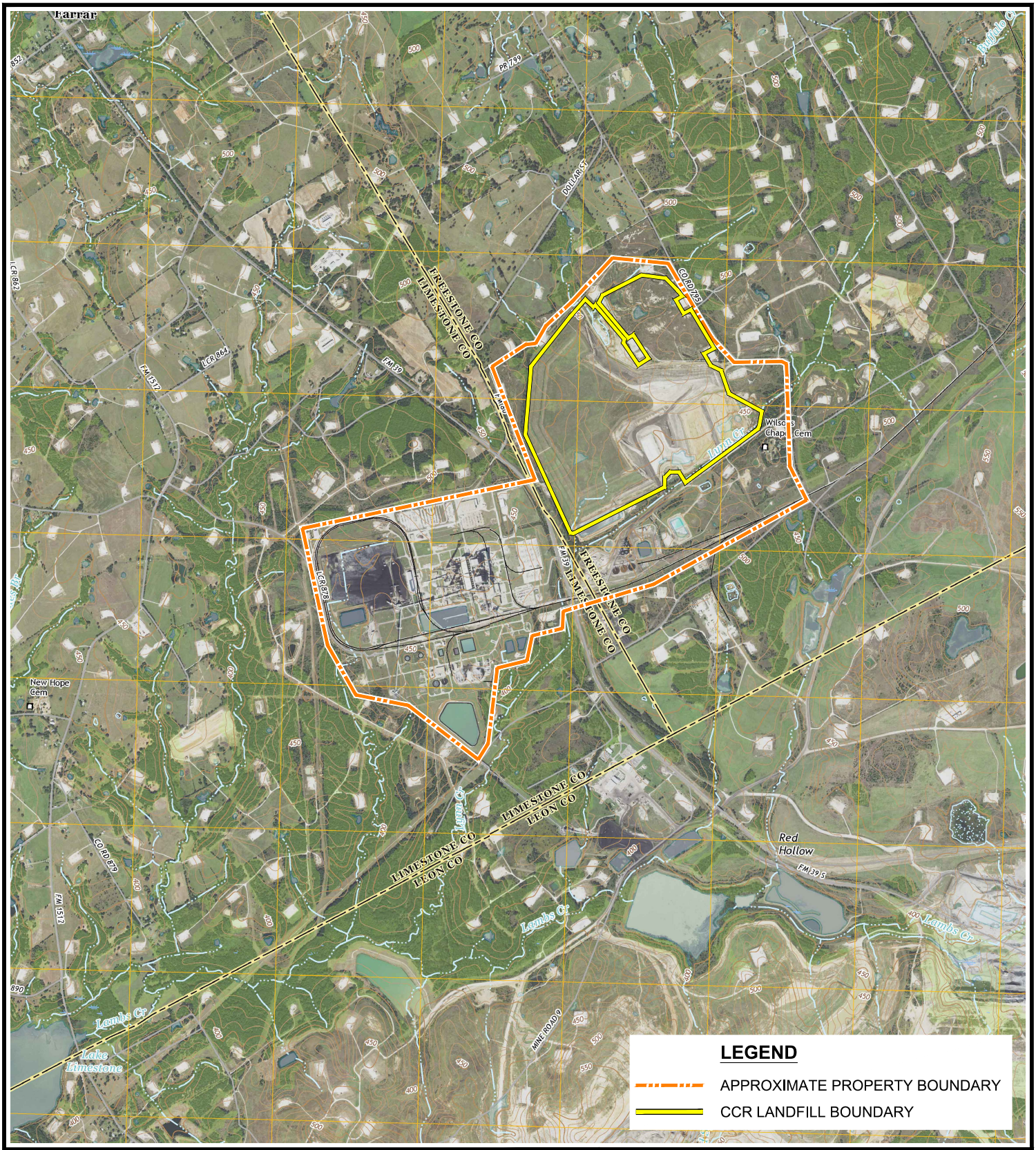
TRC, 2023 Annual Groundwater Monitoring and Corrective Action Report, January 31, 2024, Limestone Electric Generating Station, Landfill (Unit 004), Jewett, Texas.

TRC, Alternative Source Demonstration, July 2024, Limestone Electric Generating Station, Landfill (Unit 004), Jewett, Texas.

TRC, Alternative Source Demonstration, December 2024, Limestone Electric Generating Station, Landfill (Unit 004), Jewett, Texas.

TRC, Statistical Methods Certification, August 2018, Limestone Electric Generating Station, Jewett, Texas.

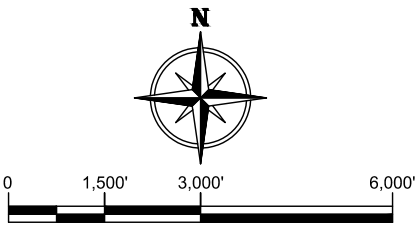
Figures



REFERENCE: U.S.G.S. 7.5 MINUTE TOPOGRAPHIC QUADRANGLES
DONIE, TEXAS (2016) & FARRAR, TEXAS (2016)



TEXAS
QUADRANGLE LOCATION



SCALE IN FEET
1" = 3,000'-0"

CLIENT / PROJECT

NRG TEXAS POWER, LLC
Limestone Generating Station
F.M. 39 Road, Jewett, Texas 75838

TITLE

SITE LOCATION MAP

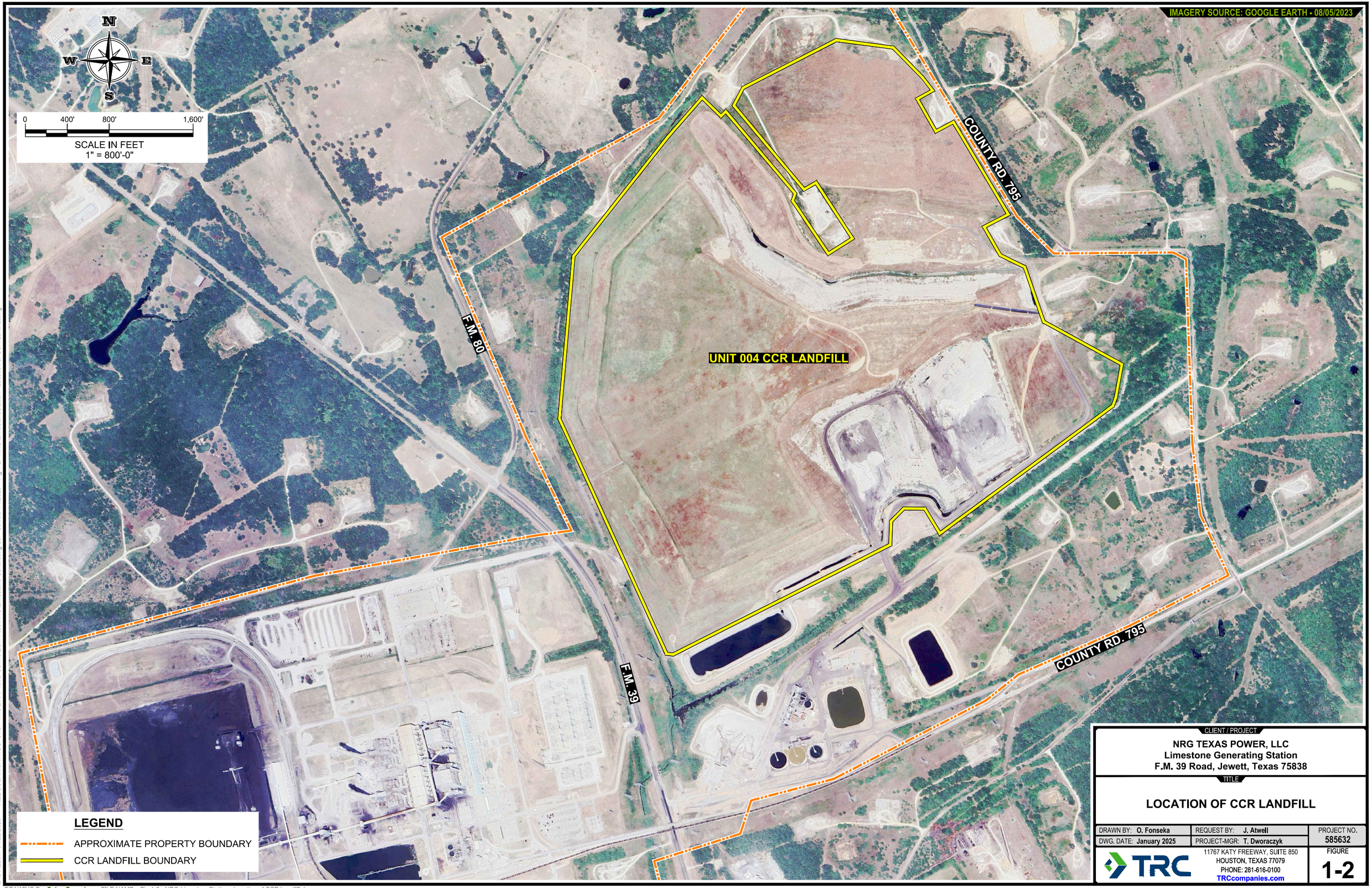
DRAWN BY: **O. Fonseka**	REQUEST BY: **J. Atwell**	PROJECT NO. **585632**
DWG. DATE: **January 2025**	PROJECT-MGR: **T. Dworaczyk**	

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\Limestone Generating Stn - Jewett-TX\2025\ Fig 1-1 - NRG-LimestoneStation - Site Location Map.dwg

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



CLIENT / PROJECT

NRG TEXAS POWER, LLC
Limestone Generating Station
F.M. 39 Road, Jewett, Texas 75838

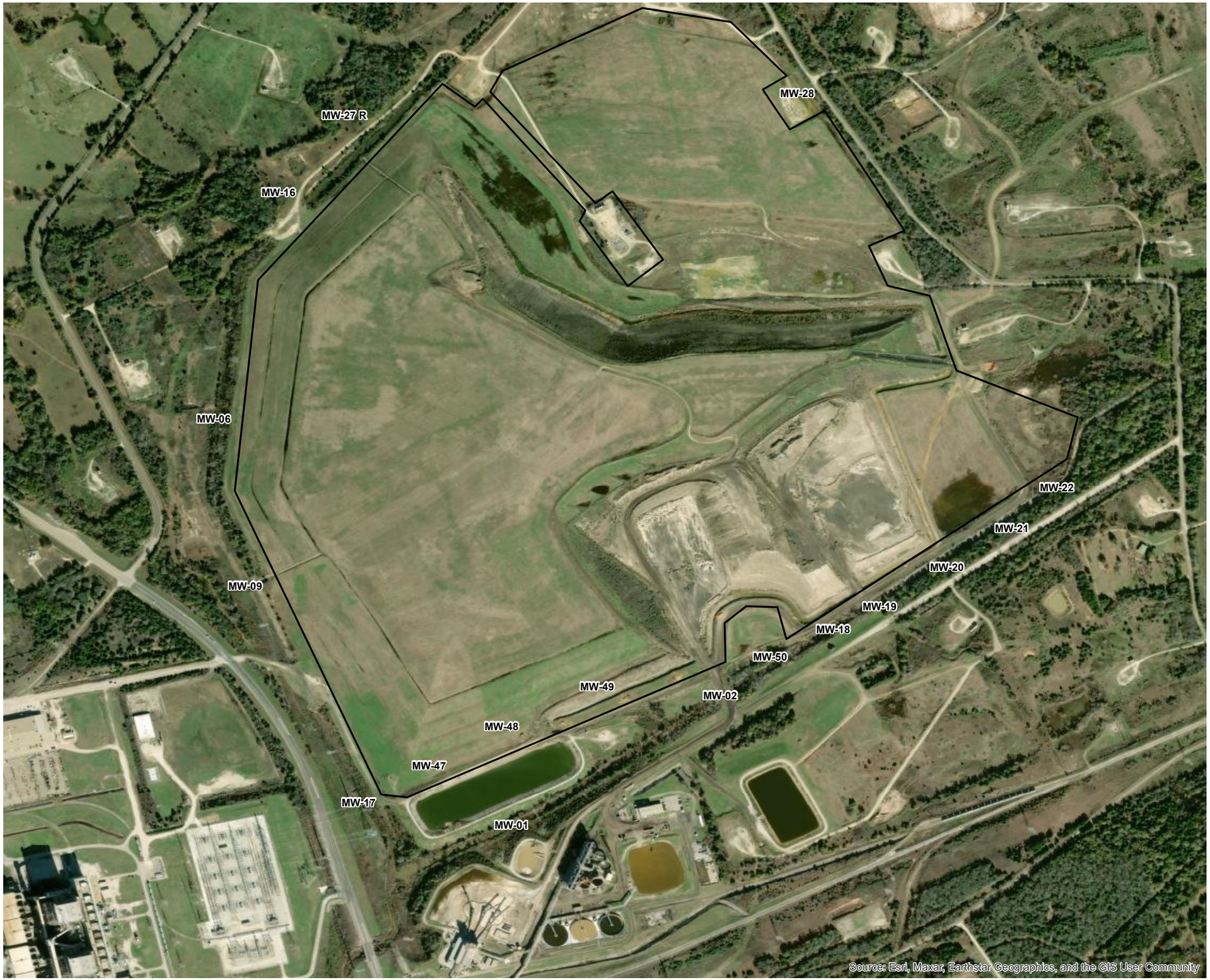
TITLE

LOCATION OF CCR LANDFILL

DRAWN BY: **O. Fonseka**	REQUEST BY: **J. Atwell**	PROJECT NO. **585632**
DWG. DATE: **January 2025**	PROJECT-MGR: **T. Dworaczyk**	FIGURE **1-2**

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

LAST EDIT: 01/22/2025 - FILE LOCATION: HOU C:\OF-TRC\DRAFTING-CD\rvel\ECR-Files\NRG\Limestone Generating Stn - Jewett-TX\2025\ Fig 1-2 - NRG-LimestoneStation - Location of CCR Landfill.dwg
DRAWING By: **Oskar Fonseka** - FILE NAME: Fig 1-2 - NRG-LimestoneStation - Location of CCR Landfill.dwg



LEGEND

- Monitor Well Location
- Landfill Background CCR Monitor Well
- Landfill CCR Monitor Well
- CCR Landfill Boundary

0 690 1,380
FT

1 " = 700 '
1:8,400

N

PROJECT:
NRG TEXAS POWER, LLC
LIMESTONE
JEWETT, TEXAS

TITLE:
CCR GROUNDWATER MONITORING NETWORKS MAP

DRAWN BY:	F. Yarbrough	PROJ. NO.:	585632.0000.0000
CHECKED BY:	J. Atwell		
APPROVED BY:	A. Dworaczyk		**FIGURE 2-1**
DATE:	January 2024		

TRC
11767 Katy Freeway
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www.trccompanies.com

FILE NO.: 585632_2-1.mxd



LEGEND

- Landfill Background CCR Locations
- Monitor Well
- Landfill CCR Monitor Well
- ***447.17*** Groundwater Elevation (FT MSL)
- ***NM*** Not Measured
- Groundwater Flow Direction
- Groundwater Elevation Contour - Dashed where Inferred (FT MSL)
- CCR Landfill Boundary

STATE OF TEXAS
ANTHONY DWORACZYK
GEOLOGY
2658
LICENSED
PROFESSIONAL GEOSCIENTIST
7/30/25

NOTE:
GROUNDWATER ELEVATIONS MEASURED BY HMI ON MARCH 2024.

0 690 1,380
FT

1 " = 700 '
1:8,400

N

PROJECT:
NRG TEXAS POWER, LLC
LIMESTONE
JEWETT, TEXAS

TITLE:
GROUNDWATER POTENTIOMETRIC SURFACE - MARCH 2024

DRAWN BY:	F. Yarbrough	PROJ. NO.:	585632.0000.0000
CHECKED BY:	J. Atwell		
APPROVED BY:	A. Dworaczyk		**FIGURE 2-2**
DATE:	July 2024		

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FILE NO.: 585632_2-2.mxd



LEGEND

- Landfill Background CCR Locations
- Monitor Well
- Landfill CCR Monitor Well
- ***447.64*** Groundwater Elevation (FT MSL)
- ***NM*** Not Measured
- Groundwater Flow Direction
- Groundwater Elevation Contour - Dashed where Inferred (FT MSL)
- CCR Landfill Boundary

STATE OF TEXAS
ANTHONY DWORACZYK
GEOLOGY
2658
LICENSED
PROFESSIONAL GEOSCIENTIST
11/30/25

NOTE:
GROUNDWATER ELEVATIONS MEASURED BY HMI ON SEPTEMBER 2024.

0 690 1,380 FT

1 " = 700 '
1:8,400

N

PROJECT:
NRG TEXAS POWER, LLC
LIMESTONE
JEWETT, TEXAS

TITLE:
GROUNDWATER POTENTIOMETRIC SURFACE - SEPTEMBER 2024

DRAWN BY:	F. Yarbrough	PROJ. NO.:	585632.0000.0000
CHECKED BY:	J. Atwell		**FIGURE 2-3**
APPROVED BY:	A. Dworaczyk		
DATE:	December 2024		

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FILE NO.: 585632_2-2.mxd

Tables

Table 2-1
Summary of Groundwater Elevation Data
2022 - 2024
Limestone Electric Gernerating Station - Jewett, Texas

Well Description	Monitor Well ID	Measurement Date	Top of Casing (ft. MSL)	Depth to Water (ft.)	Ground Water Elevation (ft. MSL)
Landfill - NRG LIM					
	MW-01	4/7/2022	420.84	2.18	418.66
	MW-01	10/5/2022	420.84	2.68	418.16
	MW-01	4/4/2023	420.84	2.19	418.65
	MW-01	5/1/2023	420.84	2.15	418.69
	MW-01	10/10/2023	420.84	2.67	418.17
	MW-01	3/7/2024	420.84	2.27	418.57
	MW-01	9/12/2024	420.84	2.36	418.48
	MW-02	4/7/2022	430.01	4.84	425.17
	MW-02	10/5/2022	430.01	6.92	423.09
	MW-02	4/4/2023	430.01	5.25	424.76
	MW-02	10/10/2023	430.01	6.18	423.83
	MW-02	3/7/2024	430.01	5.19	424.82
	MW-02	3/28/2024	430.01	5.77	424.24
	MW-02	9/12/2024	430.01	4.50	425.51
	MW-17	4/7/2022	421.22	2.49	418.73
	MW-17	10/5/2022	421.22	3.06	418.16
	MW-17	4/4/2023	421.22	2.53	418.69
	MW-17	10/10/2023	421.22	3.10	418.12
	MW-17	3/7/2024	421.22	2.36	418.86
	MW-17	3/28/2024	421.22	2.54	418.68
	MW-17	9/12/2024	421.22	2.86	418.36
	MW-18	4/7/2022	436.30	10.13	426.17
	MW-18	10/5/2022	436.30	11.56	424.74
	MW-18	4/4/2023	436.30	10.77	425.53
	MW-18	10/10/2023	436.30	11.81	424.49
	MW-18	3/7/2024	436.30	10.73	425.57
	MW-18	3/28/2024	436.30	11.15	425.15
	MW-18	9/12/2024	436.30	9.85	426.45
Downgradient	MW-19	4/7/2022	443.79	17.85	425.94
	MW-19	10/5/2022	443.79	19.25	424.54
	MW-19	4/4/2023	443.79	18.38	425.41
	MW-19	10/10/2023	443.79	19.45	424.34
	MW-19	3/7/2024	443.79	18.53	425.26
	MW-19	3/28/2024	443.79	18.95	424.84
	MW-19	9/12/2024	443.79	17.42	426.37
	MW-20	4/7/2022	445.11	18.98	426.13
	MW-20	10/5/2022	445.11	20.31	424.80
	MW-20	4/4/2023	445.11	19.43	425.68
	MW-20	10/10/2023	445.11	20.48	424.63
	MW-20	3/7/2024	445.11	19.80	425.31
	MW-20	9/12/2024	445.11	18.14	426.97
	MW-21	4/7/2022	446.35	16.55	429.80
	MW-21	10/5/2022	446.35	19.21	427.14
	MW-21	11/22/2022	446.35	20.19	426.16
	MW-21	4/4/2023	446.35	16.78	429.57

Table 2-1
Summary of Groundwater Elevation Data
2022 - 2024
Limestone Electric Gernerating Station - Jewett, Texas

Well Description	Monitor Well ID	Measurement Date	Top of Casing (ft. MSL)	Depth to Water (ft.)	Ground Water Elevation (ft. MSL)
	MW-21	5/1/2023	446.35	16.75	429.60
	MW-21	10/10/2023	446.35	20.00	426.35
	MW-21	3/7/2024	446.35	19.28	427.07
	MW-21	3/28/2024	446.35	17.41	428.94
	MW-21	9/12/2024	446.35	17.01	429.34
	MW-21	10/24/2024	446.35	17.96	428.39
	MW-22	4/7/2022	447.59	15.61	431.98
	MW-22	10/5/2022	447.59	18.81	428.78
	MW-22	4/4/2023	447.59	16.40	431.19
	MW-22	10/10/2023	447.59	19.39	428.20
	MW-22	3/7/2024	447.59	18.73	428.86
	MW-22	9/12/2024	447.59	16.04	431.55
Gauge only	MW-06	4/7/2022	457.62	18.19	439.43
	MW-06	10/5/2022	457.62	18.70	438.92
	MW-06	4/4/2023	457.62	18.54	439.08
	MW-06	10/10/2023	457.62	19.61	438.01
	MW-06	3/7/2024	457.62	18.47	439.15
	MW-06	9/12/2024	457.62	18.96	438.66
	MW-09	4/7/2022	452.03	17.78	434.25
	MW-09	10/5/2022	452.03	20.00	432.03
	MW-09	4/4/2023	452.03	18.49	433.54
	MW-09	10/10/2023	452.03	20.22	431.81
	MW-09	3/7/2024	452.03	16.11	435.92
	MW-09	9/12/2024	452.03	18.45	433.58
	MW-16	4/7/2022	463.80	16.61	447.19
	MW-16	10/5/2022	463.80	18.30	445.50
	MW-16	4/4/2023	463.80	17.39	446.41
	MW-16	10/10/2023	463.80	18.52	445.28
	MW-16	3/7/2024	463.80	17.46	446.34
	MW-16	9/12/2024	463.80	17.54	446.26
Upgradient	MW-27R	4/7/2022	457.89	17.74	440.15
	MW-27R	10/5/2022	457.89	18.96	438.93
	MW-27R	4/4/2023	457.89	18.44	439.45
	MW-27R	10/10/2023	457.89	19.51	438.38
	MW-27R	3/7/2024	457.89	18.62	439.27
	MW-27R	9/12/2024	457.89	17.70	440.19
	MW-28	4/7/2022	477.52	31.02	446.50
	MW-28	10/5/2022	477.52	30.84	446.68
	MW-28	4/4/2023	477.52	30.43	447.09
	MW-28	5/1/2023	477.52	30.72	446.80
	MW-28	10/10/2023	477.52	30.44	447.08
	MW-28	3/7/2024	477.52	30.35	447.17
	MW-28	9/12/2024	477.52	29.88	447.64
Sec E Pond - NRG LIM					
	MW-47	3/7/2024	432.85	10.17	422.68
	MW-47	3/28/2024	432.85	10.08	422.77

Table 2-1
Summary of Groundwater Elevation Data
2022 - 2024
Limestone Electric Gernerating Station - Jewett, Texas

Well Description	Monitor Well ID	Measurement Date	Top of Casing (ft. MSL)	Depth to Water (ft.)	Ground Water Elevation (ft. MSL)
Downgradient	MW-47	6/3/2024	432.85	9.62	423.23
	MW-47	9/12/2024	432.85	10.58	422.27
	MW-47	12/5/2024	432.85	11.22	421.63
	MW-48	3/7/2024	435.99	13.16	422.83
	MW-48	6/3/2024	435.99	11.90	424.09
	MW-48	9/12/2024	435.99	12.79	423.20
	MW-48	12/5/2024	435.99	13.51	422.48
	MW-49	3/7/2024	439.52	16.84	422.68
	MW-49	6/3/2024	439.52	15.51	424.01
	MW-49	9/12/2024	439.52	16.69	422.83
	MW-49	12/5/2024	439.52	17.12	422.40
	MW-50	3/7/2024	432.84	7.31	425.53
	MW-50	3/28/2024	432.84	7.40	425.44
	MW-50	6/3/2024	432.84	4.39	428.45
	MW-50	9/12/2024	432.84	7.02	425.82
	MW-50	12/5/2024	432.84	7.21	425.63

Notes

MSL	Mean Sea Level
ft.	feet
NM	Not measured

Table 2-2
Summary of Groundwater Monitoring Data - Appendix III
2022 - 2024
Limestone Electric Gernerating Station - Jewett, 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**							
Landfill - NRG LIM										
Upgradient	MW-27R	04/07/2022	N	0.211	499	1700	< 0.10 U	556	5040	6.46
		10/05/2022	N	0.168	441	1660	< 0.100 U	550	5680	6.46
		04/04/2023	N	0.157	482	2230	< 0.100 U	583	5800	6.37
		10/10/2023	N	0.132	430	1770	< 0.100 U	638	3640	6.33
		03/07/2024	N	0.159	471	1850	< 0.100 U	669	4920	6.38
		09/12/2024	N	0.138	418	1970	< 0.100 U	609	3780	6.32
	MW-28	04/07/2022	N	0.244	600	2390	< 0.10 U	644	7490	5.16
		10/05/2022	N	0.182	416	1430	0.230	792	5630	5.45
		04/04/2023	N	0.217	562	2200	< 0.100 U	1080	6860	5.35
		05/01/2023	N	n/a	n/a	n/a	n/a	959	n/a	5.10
		10/10/2023	N	0.193	540	2290	0.240	748	5690	5.34
		03/07/2024	N	0.193	586	2580	0.230	841	3550	5.15
		09/12/2024	N	0.194	633	2600	0.120	716	5060	5.07
Downgradient	MW-01	04/07/2022	N	0.0463	57.5	269	< 0.10 U	< 0.200	816	4.99
		10/05/2022	N	0.0341 [J]	60.0	278	0.110	0.560	870	5.64
		04/04/2023	N	0.0356 [J]	48.6	289	< 0.100 U	< 0.200	816	4.04
		05/01/2023	N	n/a	n/a	n/a	n/a	n/a	n/a	3.75
		10/10/2023	N	0.0382	54.4	273	0.0600 J	< 0.200	682	3.90
		03/07/2024	N	0.0348	53.7	284	< 0.100 U	0.214 J	778	4.36
		09/12/2024	N	0.0346	63.8	291	< 0.100 U	< 0.200	818	4.06
	MW-02	04/07/2022	N	0.123 [J]	137	363	< 0.10 U	352	1580	5.57
		10/05/2022	N	0.0842 [J]	132	354	< 0.100 U	271	1340	5.57
		04/04/2023	N	0.425	178	301 [JL]	< 0.100 U	664	1420	5.53
		10/10/2023	N	< 0.220	147	310	< 0.100 U	527 [JL]	1380	5.40
		03/07/2024	N	1.53	228	233	< 0.100 U	1080	1960	5.40
		03/28/2024	N	1.24	n/a	n/a	n/a	1010	n/a	5.27
		09/12/2024	N	0.429	177	273	< 0.100 U	654	1450	5.54
	MW-17	04/07/2022	N	0.0348	3.14	8.92	< 0.10 U	7.10	120	6.28
		10/05/2022	N	0.0238 [J]	2.70	9.05	0.110	7.45	146	5.77
		04/04/2023	N	0.0249 [J]	2.38	8.60	0.120	7.79	122 [J]	5.81
		10/10/2023	N	0.0207	3.55	8.58	0.150	7.67	100.0 [J]	5.69
		03/07/2024	N	0.0275	2.95	8.74	0.15	8.22	818	6.35

Table 2-2
Summary of Groundwater Monitoring Data - Appendix III
2022 - 2024
Limestone Electric Gernerating Station - Jewett, 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-17	03/28/2024	N	n/a	n/a	n/a	n/a	n/a	84.0	5.62
		09/12/2024	N	0.0257	3.15	8.87	< 0.100 U	7.56	126	5.97
	MW-18	04/07/2022	N	0.0554	67.3	6.82	< 0.10 U	29.6	344	6.30
		10/05/2022	N	0.0322 [J]	66.2	7.33	0.100	28.3	368	6.19
		04/04/2023	N	0.0443	67.1	9.64	0.110	34.3	342	6.32
		10/10/2023	N	0.0349	65.4	8.31	0.120	31.1	326	5.94
		03/07/2024	N	0.0430	65.8	11.2	0.13	38.0	1900	6.44
		03/28/2024	N	n/a	n/a	n/a	n/a	n/a	352	6.37
		09/12/2024	N	0.0386	68.4	10.0	< 0.100 U	30.6	314	6.25
	MW-19	04/07/2022	FD	0.0500	33.9	37.6	< 0.10 U	91.8	346	n/a
		04/07/2022	N	0.0543	33.1	37.3	< 0.10 U	90.9	302	5.91
		10/05/2022	FD	0.0327 [J]	32.5	37.9	< 0.100 U	86.9	328	n/a
		10/05/2022	N	0.0343 [J]	34.1	37.6	< 0.100 U	85.7	328	5.59
		04/04/2023	FD	0.0468	35.2	37.2	< 0.100 U	99.2	292	n/a
		04/04/2023	N	0.0467	34.6	37.5	< 0.100 U	99.6	308	5.74
		10/10/2023	FD	0.0166 J[J]	34.0	36.8	< 0.100 U	96.7	292	n/a
		10/10/2023	N	0.0335 [J]	31.4	36.9	0.0600 J	96.7	308	5.64
		03/07/2024	N	0.0418	35.7	37.6	< 0.100 U	104	358 J	5.55
		03/07/2024	FD	0.0427	36.3	38.1	< 0.100 U	106	2730 J	n/a
		03/28/2024	N	n/a	n/a	n/a	n/a	n/a	264	5.70
		03/28/2024	FD	n/a	n/a	n/a	n/a	n/a	270	n/a
		09/12/2024	N	0.0411	37.1	39.4	< 0.100 U	93.1	266	5.70
		09/12/2024	FD	0.0392	34.7	39.4	< 0.100 U	93.1	298	n/a
	MW-20	04/07/2022	N	0.0568	28.9	19.0	0.080 J	26.2	354	6.38
		10/05/2022	N	0.0333 [J]	28.7	18.1	0.210	28.5	342	6.28
		04/04/2023	N	0.0461	30.8	18.2	< 0.100 U	24.0	308	6.29
		10/10/2023	N	0.0241	28.6	17.4	0.220	26.8	280	6.17
		03/07/2024	N	0.0415	30.4	16.9	0.22	34.1	330	6.12
		09/12/2024	N	0.0403	30.0	16.4	0.110	31.7	292	6.37
	MW-21	04/07/2022	N	0.754	68.4	23.4	< 0.10 U	318	620	5.89
		10/05/2022	N	0.786 [J]	73.5	20.8	< 0.100 U	306	594	5.15
		11/22/2022	N	1.48	n/a	n/a	n/a	n/a	n/a	5.37
		04/04/2023	N	1.06 [J]	62.3	17.4	< 0.100 U	292	496	5.43

Table 2-2
Summary of Groundwater Monitoring Data - Appendix III
2022 - 2024
Limestone Electric Gernerating Station - Jewett, 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-21	05/01/2023	N	0.734	n/a	n/a	n/a	n/a	n/a	5.33
		10/10/2023	N	0.652	55.6	14.6	< 0.100 U	254	402	5.33
		03/07/2024	N	0.740	56.5	12.7	< 0.100 U	258	460	5.44
		03/28/2024	N	0.724	n/a	n/a	n/a	n/a	n/a	5.36
		09/12/2024	N	0.669	50.3	11.9	< 0.100 U	204	386	5.51
		10/24/2024	N	0.656	48.3	n/a	n/a	n/a	n/a	5.55
	MW-22	04/07/2022	N	0.0487	54.0	32.5	< 0.10 U	114	372	5.54
		10/05/2022	N	0.0538 [J]	53.5	34.8	< 0.100 U	118	356	5.27
		04/04/2023	N	0.0403	59.1	33.2	< 0.100 U	135	338	5.69
		10/10/2023	N	0.0178 J	50.0	33.3	0.0600 J	131	332	5.35
		03/07/2024	N	0.0434	56.9	33.8	< 0.100 U	144	370	5.56
		09/12/2024	N	0.0360	58.7	30.4	< 0.100 U	143	326	5.65
Sec E Pond - NRG LIM										
Downgradient	MW-47	03/07/2024	N	0.0221	39.0	124	0.350	39.3	810	6.60
		03/28/2024	N	n/a	n/a	n/a	0.170	n/a	n/a	6.53
		06/03/2024	FD	0.0221	43.1	120	0.200	39.3	782	n/a
		06/03/2024	N	0.0221	42.6	123	0.210	38.9	700	6.80
		09/12/2024	N	0.0196 J	43.3	135	0.180	35.6	712	6.69
		12/05/2024	N	0.0200	42.0	157	0.370	48.6	656	6.71
	MW-48	03/07/2024	N	0.0206	107	301	0.170	665	1390	6.59
		06/03/2024	N	0.0217	114	320	0.110	711 JL	1670	6.54
		09/12/2024	N	0.0166 J	46.0	148	0.150	205	760	6.51
		12/05/2024	FD	0.0218	14.5	61.2	0.430	83.7	404	n/a
		12/05/2024	N	0.0209	14.9	61.1	0.460	82.6	332	6.74
	MW-49	03/07/2024	N	0.0495	120	315	< 0.100 U	37.6	1190	6.26
		06/03/2024	N	0.0499	126	300	< 0.100 U	31.9	992	6.22
		09/12/2024	N	0.0499	127	296	< 0.100 U	58.6	904	5.95
		12/05/2024	N	0.0459	94.4	255	0.0900 J	91.7	756	6.15
	MW-50	03/07/2024	N	0.659	279	95.5	< 0.100 U	1490	2000	5.53
		03/28/2024	N	0.691	n/a	n/a	n/a	n/a	n/a	5.30
		06/03/2024	N	0.855	342	91.5	< 0.100 U	1300	1700	5.65
		09/12/2024	N	0.710	258	92.6	< 0.100 U	1210	1870	5.50
		12/05/2024	N	0.723	282	101	0.0700 J	1680	1800	5.57

Table 2-2
Summary of Groundwater Monitoring Data - Appendix III
2022 - 2024
Limestone Electric Gernerating Station - Jewett, 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							

Notes

N	Normal sample
FD	Field Duplicate
J	Concentration is an estimated value. Result is less than the method quantittion limit but ≥ to 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.
U	Analyte was not detected at or above the method detection limit.
NU	Resampled for analyte. Data not used.
n/a	Not analyzed
mg/L	Milligrams per liter
su	Standard units

Table 2-3
Summary of Groundwater Monitoring Data - Appendix IV
January 2024 - December 2024
Limestone Electric Gernerating Station - Jewett, Texas

Analyte Group									
			Analyte	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium
			Unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Well Description	Well ID	Sample Date	Duplicate						
Sec E Pond - NRG LIM									
Downgradient	MW-47	03/07/2024	N	< 0.000400	0.00427	0.124	< 0.000200	< 0.000200	< 0.000400
		06/03/2024	N	< 0.000400	0.00372	0.131	< 0.000200	< 0.000200	0.00113 J
		09/12/2024	N	< 0.000400	0.00362	0.130	< 0.000200	< 0.000200	0.000960 J[U]
		12/05/2024	N	< 0.000400	0.00343	0.125	< 0.000200	< 0.000200	< 0.000400
	MW-48	03/07/2024	N	0.000742 J	0.00183 J	0.112	< 0.000200	< 0.000200	0.00234 J
		06/03/2024	N	< 0.000400	0.000953 J	0.0491	< 0.000200	< 0.000200	0.000522 J[U]
		09/12/2024	N	< 0.000400	0.00245	0.0286	< 0.000200	< 0.000200	0.000751 J[U]
		12/05/2024	FD	< 0.000400	0.00546	0.0228	< 0.000200	< 0.000200	< 0.000400
		12/05/2024	N	< 0.000400	0.00561	0.0234	< 0.000200	< 0.000200	< 0.000400
	MW-49	03/07/2024	N	< 0.000400	0.0176	1.33	< 0.000200	< 0.000200	0.000830 J
		06/03/2024	N	< 0.000400	0.0161	1.15	< 0.000200	< 0.000200	0.000627 J
		09/12/2024	N	< 0.000400	0.0195	1.10	< 0.000200	< 0.000200	0.000809 J[U]
		12/05/2024	N	< 0.000400	0.0202	0.918	< 0.000200	< 0.000200	< 0.000400
	MW-50	03/07/2024	N	< 0.000400	0.000476 J	0.0195	< 0.000200	0.000310 J	< 0.000400
		06/03/2024	N	< 0.000400	< 0.000400	0.0172	< 0.000200	0.00758	0.000894 J
		09/12/2024	N	< 0.000400	0.000769 J	0.0176	< 0.000200	0.000283 J	0.000918 J[U]
		12/05/2024	N	< 0.000400	0.000640 J	0.0175	< 0.000200	0.000986 J	< 0.000400

Table 2-3
Summary of Groundwater Monitoring Data - Appendix IV
January 2024 - December 2024
Limestone Electric Gernerating Station - Jewett, Texas

Analyte Group				NRG App IV					
			Analyte	Cobalt	Lead	Lithium	Molybdenum	Selenium	Thallium
			Unit	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Well Description	Well ID	Sample Date	Duplicate						
Sec E Pond - NRG LIM									
Downgradient	MW-47	03/07/2024	N	0.00182 J	< 0.000600	0.0159	0.00139 J	< 0.00110	< 0.000200
		06/03/2024	N	0.00224 J	< 0.000600	0.0145	0.00161 J	< 0.00110	< 0.000200
		09/12/2024	N	0.000826 J	< 0.000600	0.0135	0.00163 J	< 0.00110	< 0.000200
		12/05/2024	N	0.000580 J	< 0.000600	0.0150	0.00158 J	< 0.00110	< 0.000200
	MW-48	03/07/2024	N	0.000540 J	< 0.000600	0.0145	0.000691 J	< 0.00110	< 0.000200
		06/03/2024	N	0.000231 J	< 0.000600	0.0133	< 0.000600	< 0.00110	< 0.000200
		09/12/2024	N	0.000562 J	< 0.000600	0.00908	0.000890 J	0.00295	< 0.000513 J[UJ]
		12/05/2024	FD	< 0.000200	< 0.000600	0.00815	0.00110 J	0.00353	< 0.000200
		12/05/2024	N	< 0.000200	< 0.000600	0.00848	0.00111 J	0.00332	< 0.000200
	MW-49	03/07/2024	N	0.0381	< 0.000600	0.00240 J	0.000674 J	< 0.00110	< 0.000200
		06/03/2024	N	0.0364	< 0.000600	0.00164 J	< 0.000600	< 0.00110	< 0.000200
		09/12/2024	N	0.0403	< 0.000600	0.00211 J	0.000780 J	< 0.00110	< 0.000200
		12/05/2024	N	0.0331	< 0.000600	0.00248 J	0.000877 J	< 0.00110	< 0.000200 [UJL
	MW-50	03/07/2024	N	0.00619	< 0.000600	0.0202	< 0.000600	< 0.00110	< 0.000200
		06/03/2024	N	0.00520	< 0.000600	0.0215	< 0.000600	< 0.00110	< 0.000200
		09/12/2024	N	0.00467 J	< 0.000600	0.0195	< 0.000600	< 0.00110	< 0.000200
		12/05/2024	N	0.00532	< 0.000600	0.0220	< 0.000600	< 0.00110	< 0.000200

Table 2-3
Summary of Groundwater Monitoring Data - Appendix IV
January 2024 - December 2024
Limestone Electric Gernerating Station - Jewett, Texas

Analyte Group								
			Analyte	Mercury	Fluoride	Radium-226	Radium-228	Radium-226/228
			Unit	mg/L	mg/L	pci/L	pci/L	pci/L
Well Description	Well ID	Sample Date	Duplicate					
Sec E Pond - NRG LIM								
Downgradient	MW-47	03/07/2024	N	< 0.0000300	0.330	0.944	4.84	5.78
		06/03/2024	N	< 0.0000300	0.200	1.03	2.31 J	3.34
		09/12/2024	N	< 0.0000300	0.210	0.915	< 3.00 U	2.90
		12/05/2024	N	< 0.0000300	0.370	3.40	3.04	6.44
	MW-48	03/07/2024	N	0.0000670 J[U]	0.160	0.989	2.17	3.15
		06/03/2024	N	< 0.0000300	0.100	1.03	2.45	3.48
		09/12/2024	N	< 0.0000300	0.190	1.07	2.53	3.59
		12/05/2024	FD	< 0.0000300	0.430	n/a	n/a	n/a
		12/05/2024	N	< 0.0000300	0.460	< 1.00 U	< 3.00 U	0.0225
	MW-49	03/07/2024	N	< 0.0000300	< 0.100 U	1.23	< 3.00 U	2.10
		06/03/2024	N	< 0.0000300	< 0.100 U	1.40	3.46	4.86
		09/12/2024	N	< 0.0000300	< 0.100 U	1.63	< 3.00 U	3.11
		12/05/2024	N	< 0.0000300	0.0900 J	0.884	< 3.00 U	2.21
	MW-50	03/07/2024	N	< 0.0000300	< 0.100 U	0.943	< 3.00 U	1.38
		06/03/2024	N	< 0.0000300	< 0.100 U	2.15	2.11	4.26
		09/12/2024	N	< 0.0000300	< 0.100 U	< 1.00 U	< 3.00 U	0.982
		12/05/2024	N	< 0.0000300	0.0700 J	2.11	1.71	3.83

Appendix A
Detection Monitoring Data (March 2024)

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
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March 15, 2024

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

Work Order: **HS24030489**

Laboratory Results for: **NRG Limestone-Appendix III**

Dear Lori Burris,

ALS Environmental received 16 sample(s) on Mar 08, 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:	NRG Limestone-Appendix III	
WorkOrder:	**HS24030489**	

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:	NRG Limestone-Appendix III	
WorkOrder:	**HS24030489**	

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: 03/15/2024					
Project Name: 4847 Blaffer			Laboratory Job Number: HS24030463					
Reviewer Name: Andy Neir			Prep Batch Number(s): R461051,R461167,R461427,R461432					
#[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			2	
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				3	
		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				4	

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: 03/15/2024				
Project Name: 4847 Blaffer			Laboratory Job Number: HS24030463				
Reviewer Name: Andy Neir			Prep Batch Number(s): R461051,R461167,R461427,R461432				
#[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		
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: 03/15/2024
Project Name: 4847 Blaffer	Laboratory Job Number: HS24030463
Reviewer Name: Andy Neir	Prep Batch Number(s): R461051,R461167,R461427,R461432

ER#[5]	Description
1	Batch R461051, Volatiles Method SW8260, sample HS24030476-04, MS and MSD were performed on unrelated sample Batch R461167, Volatiles Method SW8260, sample HS24030146-01, MS and MSD were performed on unrelated sample
2	Batch R461051, Volatiles Method SW8260, sample HS24030476-04, MS/MSD RPD was performed on unrelated sample.
3	Login Comments: MW-12 4'-8': No sample ID on vials. MW-12 30': No collection time on vials. MW-11 4'-8' Collection times differ, COC states 08:47, sample label has 09:45. MW11 38'-40': Collection times differ, COC 10:32, Sample label 10:22. Trip blanks not listed on COC.
4	Volatile Organics Method SW8260, TCEQ does not offer accreditation for Cyclohexane the results are flagged with n.

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: NRG Limestone-Appendix III
WorkOrder: HS24030489
Start Date: 12-Mar-2024 End Date: 13-Mar-2024

Run ID:ICPMS06_461059
Instrument:ICPMS06
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
LLICV2	1	12-Mar-2024 11:17	021LCV2.d	B CA NA
ICB	1	12-Mar-2024 11:22	024_ICB.d	B CA NA
ICV	1	12-Mar-2024 11:25	025_ICV.d	B CA NA
LLICV5	1	12-Mar-2024 11:29	027LCV5.d	B CA NA
ICSA	1	12-Mar-2024 11:33	029ICSA.d	B CA NA
ICSAB	1	12-Mar-2024 11:35	030ICSB.d	B CA NA
CCV 1	1	12-Mar-2024 11:55	033_CCV.d	B CA NA
CCB 1	1	12-Mar-2024 11:56	034_CCB.d	B CA NA
CCV 2	1	12-Mar-2024 12:18	045_CCV.d	B CA NA
CCB 2	1	12-Mar-2024 12:20	046_CCB.d	B CA NA
CCV 3	1	12-Mar-2024 12:43	057_CCV.d	B CA NA
CCB 3	1	12-Mar-2024 12:44	058_CCB.d	B CA NA
CCV 4	1	12-Mar-2024 13:08	069_CCV.d	B CA NA
CCB 4	1	12-Mar-2024 13:10	070_CCB.d	B CA NA
CCV 5	1	12-Mar-2024 13:32	081_CCV.d	B CA NA
CCB 5	1	12-Mar-2024 13:34	082_CCB.d	B CA NA
CCV 6	1	12-Mar-2024 13:56	084_CCV.d	B CA NA
CCB 6	1	12-Mar-2024 13:58	085_CCB.d	B CA NA
CCB 7	1	12-Mar-2024 14:27	097_CCB.d	B CA NA
CCV 7	1	12-Mar-2024 14:33	099_CCV.d	B CA NA
CCV 8	1	12-Mar-2024 14:55	108_CCV.d	B CA NA
CCB 8	1	12-Mar-2024 14:57	109_CCB.d	B CA NA
CCV 9	1	12-Mar-2024 15:18	111_CCV.d	B CA NA
CCB 9	1	12-Mar-2024 15:20	112_CCB.d	B CA NA
CCV 10	1	12-Mar-2024 15:41	123_CCV.d	B CA NA
CCB 10	1	12-Mar-2024 15:43	124_CCB.d	B CA NA
ICCV 11	1	12-Mar-2024 16:21	140_ICV.d	B CA NA
LLCCV5	1	12-Mar-2024 16:23	141LCV5.d	B CA NA
LLCCV2	1	12-Mar-2024 16:25	142LCV2.d	B CA NA
ICCB 11	1	12-Mar-2024 16:27	143_ICB.d	B CA NA
CCV 12	1	12-Mar-2024 16:36	145_CCV.d	B CA NA
CCB 12	1	12-Mar-2024 16:38	146_CCB.d	B CA NA
MBLK-208665	1	12-Mar-2024 16:41	147SMPL.d	B CA NA
LCS-208665	1	12-Mar-2024 16:43	148SMPL.d	B CA NA
MW-02SD	5	12-Mar-2024 16:46	150SMPL.d	NA
MW-02MS	1	12-Mar-2024 16:48	151SMPL.d	B CA NA
MW-02MSD	1	12-Mar-2024 16:50	152SMPL.d	B CA NA
MW-02PDS	1	12-Mar-2024 16:52	153SMPL.d	NA
CCB 13	1	12-Mar-2024 16:59	156_CCB.d	B CA NA
CCV 13	1	12-Mar-2024 17:01	157_CCV.d	B CA NA
ZZZZZZSD	5	12-Mar-2024 17:08	159SMPL.d	B CA
ZZZZZZMS	1	12-Mar-2024 17:10	160SMPL.d	B CA NA
ZZZZZZMSD	1	12-Mar-2024 17:12	161SMPL.d	B CA NA
ZZZZZZPDS	1	12-Mar-2024 17:14	162SMPL.d	B CA
CCV 14	1	12-Mar-2024 17:21	164_CCV.d	B CA NA
CCB 14	1	12-Mar-2024 17:23	165_CCB.d	B CA NA
MW-01	1	12-Mar-2024 17:26	166SMPL.d	B CA
MW-17	1	12-Mar-2024 17:28	167SMPL.d	B CA
MW-18	1	12-Mar-2024 17:30	168SMPL.d	B CA
MW-19	1	12-Mar-2024 17:32	169SMPL.d	B CA

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: NRG Limestone-Appendix III
WorkOrder: HS24030489
Start Date: 12-Mar-2024 End Date: 13-Mar-2024

Run ID:ICPMS06_461059
Instrument:ICPMS06
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
MW-20	1	12-Mar-2024 17:34	170SMPL.d	B CA
MW-21	1	12-Mar-2024 17:35	171SMPL.d	B CA NA
MW-22	1	12-Mar-2024 17:37	172SMPL.d	B CA
MW-27R	1	12-Mar-2024 17:39	173SMPL.d	B
MW-28R	1	12-Mar-2024 17:41	174SMPL.d	B
CCV 15	1	12-Mar-2024 17:46	176_CCV.d	B CA NA
CCB 15	1	12-Mar-2024 17:47	177_CCB.d	B CA NA
MW-47	1	12-Mar-2024 17:50	178SMPL.d	B CA
MW-48	1	12-Mar-2024 17:52	179SMPL.d	B CA
MW-49	1	12-Mar-2024 17:54	180SMPL.d	B CA
MW-50	1	12-Mar-2024 17:56	181SMPL.d	B
Field Blank	1	12-Mar-2024 17:58	182SMPL.d	B CA
Field Duplicate	1	12-Mar-2024 17:59	183SMPL.d	B CA
CCV 16	1	12-Mar-2024 18:09	188_CCV.d	B CA NA
CCB 16	1	12-Mar-2024 18:11	189_CCB.d	B CA NA
CCB 17	1	12-Mar-2024 18:29	198_CCB.d	B CA NA
CCV 17	1	12-Mar-2024 18:36	200_CCV.d	B CA NA
CCV 18	1	12-Mar-2024 18:49	207_CCV.d	B CA NA
CCB 18	1	12-Mar-2024 18:51	208_CCB.d	B CA NA
CCV 19	1	12-Mar-2024 19:17	219_CCV.d	B CA NA
CCB 19	1	12-Mar-2024 19:19	220_CCB.d	B CA NA
CCV 20	1	12-Mar-2024 19:20	221_CCV.d	B CA NA
CCB 20	1	12-Mar-2024 19:22	222_CCB.d	B CA NA
CCV 21	1	12-Mar-2024 19:38	230_CCV.d	B CA NA
CCB 21	1	12-Mar-2024 19:39	231_CCB.d	B CA NA
CCV 22	1	12-Mar-2024 19:57	240_CCV.d	B CA NA
CCB 22	1	12-Mar-2024 19:58	241_CCB.d	B CA NA
CCV 23	1	12-Mar-2024 20:15	250_CCV.d	B CA NA
CCB 23	1	12-Mar-2024 20:17	251_CCB.d	B CA NA
CCV 24	1	12-Mar-2024 20:29	257_CCV.d	B CA NA
CCB 24	1	12-Mar-2024 20:31	258_CCB.d	B CA NA
CCV 25	1	12-Mar-2024 20:40	263_CCV.d	B CA NA
CCB 25	1	12-Mar-2024 20:42	264_CCB.d	B CA NA
CCV 26	1	12-Mar-2024 20:58	272_CCV.d	B CA NA
CCB 26	1	12-Mar-2024 21:00	273_CCB.d	B CA NA
CCV 27	1	12-Mar-2024 21:28	280_CCV.d	B CA NA
CCB 27	1	12-Mar-2024 21:30	281_CCB.d	B CA NA
CCV 28	1	12-Mar-2024 21:56	290_CCV.d	B CA NA
CCB 28	1	12-Mar-2024 21:58	291_CCB.d	B CA NA
CCV 29	1	12-Mar-2024 22:17	301_CCV.d	B CA NA
CCB 29	1	12-Mar-2024 22:19	302_CCB.d	B CA NA
CCV 30	1	12-Mar-2024 22:57	312_CCV.d	B CA NA
CCB 30	1	12-Mar-2024 22:59	313_CCB.d	B CA NA
CCB 31	1	12-Mar-2024 23:20	323_CCB.d	B CA NA
CCV 31	1	12-Mar-2024 23:30	325_CCV.d	B CA NA
CCV 32	1	12-Mar-2024 23:42	331_CCV.d	B CA NA
CCB 32	1	12-Mar-2024 23:44	332_CCB.d	B CA NA
CCV 33	1	12-Mar-2024 23:59	340_CCV.d	B CA NA
CCB 33	1	13-Mar-2024 00:01	341_CCB.d	B CA NA
CCV 34	1	13-Mar-2024 00:17	349_CCV.d	B CA NA

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: NRG Limestone-Appendix III
WorkOrder: HS24030489
Start Date: 12-Mar-2024 End Date: 13-Mar-2024

Run ID:ICPMS06_461059
Instrument:ICPMS06
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
CCB 34	1	13-Mar-2024 00:18	350_CCB.d	B CA NA
CCV 35	1	13-Mar-2024 00:36	359_CCV.d	B CA NA
CCB 35	1	13-Mar-2024 00:38	360_CCB.d	B CA NA
LLCCV2	1	13-Mar-2024 00:40	361LCV2.d	B CA NA
LLCCV5	1	13-Mar-2024 00:42	362LCV5.d	B CA NA
ICSA	1	13-Mar-2024 00:43	363ICSA.d	B CA NA
ICSAB	1	13-Mar-2024 00:45	364ICSB.d	B CA NA

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: NRG Limestone-Appendix III
WorkOrder: HS24030489
Start Date: 13-Mar-2024 End Date: 13-Mar-2024

Run ID:ICPMS06_461170
Instrument:ICPMS06
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
ICV	1	13-Mar-2024 11:02	019_ICV.d	B CA NA
LLICV2	1	13-Mar-2024 11:06	021LCV2.d	B CA
LLICV5	1	13-Mar-2024 11:07	022LCV5.d	B CA
ICB	1	13-Mar-2024 11:09	023_ICB.d	B CA NA
ICSA	1	13-Mar-2024 11:14	025ICSA.d	B CA
ICSAB	1	13-Mar-2024 11:16	026ICSB.d	B CA
CCV 1	1	13-Mar-2024 11:30	029_CCV.d	B CA NA
CCB 1	1	13-Mar-2024 11:31	030_CCB.d	B CA NA
LCS-208665	1	13-Mar-2024 11:36	032SMPL.d	
CCV 2	1	13-Mar-2024 11:53	041_CCV.d	B CA NA
CCB 2	1	13-Mar-2024 11:55	042_CCB.d	B CA NA
MW-02	10	13-Mar-2024 11:57	043SMPL.d	B CA
MW-02SD	50	13-Mar-2024 11:59	044SMPL.d	B CA
MW-02PDS	10	13-Mar-2024 12:01	045SMPL.d	B CA
MW-02MS	1	13-Mar-2024 12:03	046SMPL.d	
MW-02MSD	1	13-Mar-2024 12:05	047SMPL.d	
ZZZZZZSD	50	13-Mar-2024 12:11	050SMPL.d	NA
ZZZZZZPDS	10	13-Mar-2024 12:13	051SMPL.d	NA
CCV 3	1	13-Mar-2024 12:17	053_CCV.d	B CA NA
CCB 3	1	13-Mar-2024 12:19	054_CCB.d	B CA NA
MW-27R	20	13-Mar-2024 12:23	055SMPL.d	CA
MW-28R	20	13-Mar-2024 12:25	056SMPL.d	CA
MW-50	10	13-Mar-2024 12:27	057SMPL.d	CA
CCV 4	1	13-Mar-2024 12:40	064_CCV.d	B CA NA
CCB 4	1	13-Mar-2024 12:42	065_CCB.d	B CA NA
CCV 5	1	13-Mar-2024 13:07	076_CCV.d	B CA NA
CCB 5	1	13-Mar-2024 13:09	077_CCB.d	B CA NA
CCV 6	1	13-Mar-2024 13:48	087_CCV.d	B CA NA
CCB 6	1	13-Mar-2024 13:50	088_CCB.d	B CA NA
CCV 7	1	13-Mar-2024 14:12	099_CCV.d	B CA NA
CCB 7	1	13-Mar-2024 14:14	100_CCB.d	B CA NA
CCV 8	1	13-Mar-2024 14:46	110_CCV.d	B CA NA
CCB 8	1	13-Mar-2024 14:48	111_CCB.d	B CA NA
CCV 9	1	13-Mar-2024 15:10	122_CCV.d	B CA NA
CCB 9	1	13-Mar-2024 15:12	123_CCB.d	B CA NA
CCV 10	1	13-Mar-2024 15:39	134_CCV.d	B CA NA
CCB 10	1	13-Mar-2024 15:41	135_CCB.d	B CA NA
CCV 11	1	13-Mar-2024 16:11	144_CCV.d	B CA NA
CCB 11	1	13-Mar-2024 16:13	145_CCB.d	B CA NA
CCB 12	1	13-Mar-2024 16:43	157_CCB.d	B CA NA
CCV 12	1	13-Mar-2024 17:02	160_CCV.d	B CA NA
ICCV 13	1	13-Mar-2024 17:58	174_ICV.d	B CA NA
LLCCV5	1	13-Mar-2024 18:00	175LCV5.d	B CA
LLCCV2	1	13-Mar-2024 18:02	176LCV2.d	B CA
ICCB 13	1	13-Mar-2024 18:04	177_ICB.d	B CA NA
CCV 14	1	13-Mar-2024 18:35	180_CCV.d	B CA NA
CCB 14	1	13-Mar-2024 18:37	181_CCB.d	B CA NA
CCV 15	1	13-Mar-2024 18:54	190_CCV.d	B CA NA
CCB 15	1	13-Mar-2024 18:56	191_CCB.d	B CA NA
CCV 16	1	13-Mar-2024 19:16	202_CCV.d	B CA NA

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: NRG Limestone-Appendix III
WorkOrder: HS24030489
Start Date: 13-Mar-2024 End Date: 13-Mar-2024

Run ID:ICPMS06_461170
Instrument:ICPMS06
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
CCB 16	1	13-Mar-2024 19:18	203_CCB.d	B CA NA
CCV 17	1	13-Mar-2024 19:39	214_CCV.d	B CA NA
CCB 17	1	13-Mar-2024 19:41	215_CCB.d	B CA NA
CCV 18	1	13-Mar-2024 19:58	224_CCV.d	B CA NA
CCB 18	1	13-Mar-2024 20:00	225_CCB.d	B CA NA
CCV 19	1	13-Mar-2024 20:21	236_CCV.d	B CA NA
CCB 19	1	13-Mar-2024 20:22	237_CCB.d	B CA NA
CCV 20	1	13-Mar-2024 20:43	248_CCV.d	B CA NA
CCB 20	1	13-Mar-2024 20:45	249_CCB.d	B CA NA
CCV 21	1	13-Mar-2024 21:05	260_CCV.d	B CA NA
CCB 21	1	13-Mar-2024 21:07	261_CCB.d	B CA NA
CCV 22	1	13-Mar-2024 21:28	267_CCV.d	B CA NA
CCB 22	1	13-Mar-2024 21:29	268_CCB.d	B CA NA
CCV 23	1	13-Mar-2024 21:44	276_CCV.d	B CA NA
CCB 23	1	13-Mar-2024 21:46	277_CCB.d	B CA NA
CCV 24	1	13-Mar-2024 21:57	283_CCV.d	B CA NA
CCB 24	1	13-Mar-2024 21:59	284_CCB.d	B CA NA
CCV 25	1	13-Mar-2024 22:12	291_CCV.d	B CA NA
CCB 25	1	13-Mar-2024 22:14	292_CCB.d	B CA NA
CCV 26	1	13-Mar-2024 22:39	301_CCV.d	B CA NA
CCB 26	1	13-Mar-2024 22:41	302_CCB.d	B CA NA
CCV 27	1	13-Mar-2024 22:58	311_CCV.d	B CA NA
CCB 27	1	13-Mar-2024 23:00	312_CCB.d	B CA NA
ICSA	1	13-Mar-2024 23:02	313ICSA.d	B CA
ICSAB	1	13-Mar-2024 23:04	314ICSB.d	B CA
CCV 28	1	13-Mar-2024 23:17	321_CCV.d	B CA NA
CCB 28	1	13-Mar-2024 23:19	322_CCB.d	B CA NA
CCV 29	1	13-Mar-2024 23:32	329_CCV.d	B CA NA
CCB 29	1	13-Mar-2024 23:33	330_CCB.d	B CA NA
CCV 30	1	13-Mar-2024 23:49	338_CCV.d	B CA NA
CCB 30	1	13-Mar-2024 23:50	339_CCB.d	B CA NA
LLCCV2	1	13-Mar-2024 23:52	340LCV2.d	B CA
LLCCV5	1	13-Mar-2024 23:54	341LCV5.d	B CA
ICSA	1	13-Mar-2024 23:56	342ICSA.d	B CA
ICSAB	1	13-Mar-2024 23:58	343ICSB.d	B CA

CCB EXCEPTIONS REPORT

Client: TRC
Project: NRG Limestone-Appendix III
WorkOrder: HS24030489

Run ID:ICPMS06_461059
Instrument:ICPMS06
Method:SW6020A

CCB 2	Date: 12-Mar-2024 12:20	Seq: 7881966		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	71.89	14	200	
CCB 3	Date: 12-Mar-2024 12:44	Seq: 7882098		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	191.6	14	200	
CCB 4	Date: 12-Mar-2024 13:10	Seq: 7882242		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	178.9	14	200	
CCB 5	Date: 12-Mar-2024 13:34	Seq: 7882246		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	168.8	14	200	
CCB 6	Date: 12-Mar-2024 13:58	Seq: 7882362		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	111.7	14	200	
CCB 7	Date: 12-Mar-2024 14:27	Seq: 7882412		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	41.51	14	200	
CCB 13	Date: 12-Mar-2024 16:59	Seq: 7883023		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Boron	23.91	11	20	
CCB 14	Date: 12-Mar-2024 17:23	Seq: 7883032		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	48.38	14	200	
CCB 18	Date: 12-Mar-2024 18:51	Seq: 7883341		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Boron	12.73	11	20	
	Sodium	38.1	14	200	
CCB 19	Date: 12-Mar-2024 19:19	Seq: 7883353		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Boron	11.17	11	20	
	Sodium	17.18	14	200	
CCB 20	Date: 12-Mar-2024 19:22	Seq: 7883356		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Boron	12.55	11	20	
CCB 21	Date: 12-Mar-2024 19:39	Seq: 7883365		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	39.89	14	200	
CCB 22	Date: 12-Mar-2024 19:58	Seq: 7883375		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	43.62	14	200	

CCB EXCEPTIONS REPORT

Client: TRC
Project: NRG Limestone-Appendix III
WorkOrder: HS24030489

Run ID:ICPMS06_461059
Instrument:ICPMS06
Method:SW6020A

CCB 26	Date: 12-Mar-2024 21:00	Seq: 7883407	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	14.39	11	20	
Sodium	117.8	14	200	

CCB 27	Date: 12-Mar-2024 21:30	Seq: 7883415	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	13.39	11	20	
Sodium	28.08	14	200	

CCB 28	Date: 12-Mar-2024 21:58	Seq: 7883424	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	16.87	11	20	
Sodium	290.4	14	200	

CCB 29	Date: 12-Mar-2024 22:19	Seq: 7883434	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	15.04	11	20	
Calcium	91.79	34	500	
Sodium	178.2	14	200	

CCB 30	Date: 12-Mar-2024 22:59	Seq: 7883688	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	11.13	11	20	
Sodium	81.07	14	200	

CCB 31	Date: 12-Mar-2024 23:20	Seq: 7883698	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	473.7	14	200	

CCB 32	Date: 12-Mar-2024 23:44	Seq: 7883703	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	162.8	14	200	

CCB 33	Date: 13-Mar-2024 00:01	Seq: 7883712	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	163.2	14	200	

CCB 34	Date: 13-Mar-2024 00:18	Seq: 7883721	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	382	14	200	

CCB 35	Date: 13-Mar-2024 00:38	Seq: 7883731	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	210.6	14	200	

CCB EXCEPTIONS REPORT

Client: TRC
Project: NRG Limestone-Appendix III
WorkOrder: HS24030489

Run ID:ICPMS06_461170
Instrument:ICPMS06
Method:SW6020A

CCB 1	Date: 13-Mar-2024 11:31	Seq: 7884621		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	-21.71	14	200	
CCB 2	Date: 13-Mar-2024 11:55	Seq: 7884719		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	-26.22	14	200	
CCB 3	Date: 13-Mar-2024 12:19	Seq: 7884793		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Boron	15.96	11	20	
	Sodium	-17.54	14	200	
CCB 4	Date: 13-Mar-2024 12:42	Seq: 7885004		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Boron	12.26	11	20	
	Sodium	-20.52	14	200	
CCB 5	Date: 13-Mar-2024 13:09	Seq: 7885001		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	31.36	14	200	
CCB 6	Date: 13-Mar-2024 13:50	Seq: 7885041		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	166.4	14	200	
CCB 8	Date: 13-Mar-2024 14:48	Seq: 7885275		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	-14.23	14	200	
CCB 9	Date: 13-Mar-2024 15:12	Seq: 7885390		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	122.2	14	200	
CCB 10	Date: 13-Mar-2024 15:41	Seq: 7885620		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	49.6	14	200	
CCB 11	Date: 13-Mar-2024 16:13	Seq: 7885740		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	27.45	14	200	
CCB 12	Date: 13-Mar-2024 16:43	Seq: 7885892		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	89.44	14	200	
ICCB 13	Date: 13-Mar-2024 18:04	Seq: 7885996		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	-20.21	14	200	
CCB 14	Date: 13-Mar-2024 18:37	Seq: 7886053		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	-30.79	14	200	

CCB EXCEPTIONS REPORT

Client: TRC
Project: NRG Limestone-Appendix III
WorkOrder: HS24030489

Run ID:ICPMS06_461170
Instrument:ICPMS06
Method:SW6020A

CCB 15	Date: 13-Mar-2024 18:56	Seq: 7886063	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	-28.03	14	200	

CCB 16	Date: 13-Mar-2024 19:18	Seq: 7886075	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	11.35	11	20	
Sodium	40.34	14	200	

CCB 18	Date: 13-Mar-2024 20:00	Seq: 7886112	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	34.99	14	200	

CCB 19	Date: 13-Mar-2024 20:22	Seq: 7886132	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	81.01	14	200	

CCB 20	Date: 13-Mar-2024 20:45	Seq: 7886144	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	107.6	14	200	

CCB 21	Date: 13-Mar-2024 21:07	Seq: 7886156	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	11.45	11	20	
Calcium	70.88	34	500	
Sodium	49.39	14	200	

CCB 22	Date: 13-Mar-2024 21:29	Seq: 7886161	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	-25.37	14	200	

CCB 23	Date: 13-Mar-2024 21:46	Seq: 7886170	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	-32.37	14	200	

CCB 25	Date: 13-Mar-2024 22:14	Seq: 7886185	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	11.68	11	20	

CCB 26	Date: 13-Mar-2024 22:41	Seq: 7886195	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	117.1	14	200	

CCB 28	Date: 13-Mar-2024 23:19	Seq: 7886428	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	-21.24	14	200	

CCB 29	Date: 13-Mar-2024 23:33	Seq: 7886436	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	-37.57	14	200	

CCB 30	Date: 13-Mar-2024 23:50	Seq: 7886445	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	-49.93	14	200	

Client: TRC
Project: NRG Limestone-Appendix III
Work Order: HS24030489

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24030489-01	MW-01	Water		07-Mar-2024 10:55	08-Mar-2024 10:36	☐
HS24030489-02	MW-02	Water		07-Mar-2024 12:10	08-Mar-2024 10:36	☐
HS24030489-03	MW-17	Water		07-Mar-2024 10:35	08-Mar-2024 10:36	☐
HS24030489-04	MW-18	Water		07-Mar-2024 12:00	08-Mar-2024 10:36	☐
HS24030489-05	MW-19	Water		07-Mar-2024 08:10	08-Mar-2024 10:36	☐
HS24030489-06	MW-20	Water		07-Mar-2024 08:55	08-Mar-2024 10:36	☐
HS24030489-07	MW-21	Water		07-Mar-2024 09:50	08-Mar-2024 10:36	☐
HS24030489-08	MW-22	Water		07-Mar-2024 10:40	08-Mar-2024 10:36	☐
HS24030489-09	MW-27R	Water		07-Mar-2024 08:50	08-Mar-2024 10:36	☐
HS24030489-10	MW-28R	Water		07-Mar-2024 08:10	08-Mar-2024 10:36	☐
HS24030489-11	MW-47	Water		07-Mar-2024 08:50	08-Mar-2024 10:36	☐
HS24030489-12	MW-48	Water		07-Mar-2024 09:30	08-Mar-2024 10:36	☐
HS24030489-13	MW-49	Water		07-Mar-2024 09:45	08-Mar-2024 10:36	☐
HS24030489-14	MW-50	Water		07-Mar-2024 11:10	08-Mar-2024 10:36	☐
HS24030489-15	Field Blank	Water		07-Mar-2024 08:20	08-Mar-2024 10:36	☐
HS24030489-16	Field Duplicate	Water		07-Mar-2024 09:00	08-Mar-2024 10:36	☐

Client: TRC
Project: NRG Limestone-Appendix III
Sample ID: MW-01
Collection Date: 07-Mar-2024 10:55

ANALYTICAL REPORT
WorkOrder:HS24030489
Lab ID:HS24030489-01
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 12-Mar-2024		Analyst: JC
Boron	**0.0348**		**0.0110**	**0.0200**	**mg/L**	1	12-Mar-2024 17:26
Calcium	**53.7**		**0.0340**	**0.500**	**mg/L**	1	12-Mar-2024 17:26
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**284**		**1.00**	**2.50**	**mg/L**	5	13-Mar-2024 19:52
Sulfate	**0.214**	J	**0.200**	**0.500**	**mg/L**	1	13-Mar-2024 19:46
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**778**		**5.00**	**10.0**	**mg/L**	1	12-Mar-2024 10:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	15-Mar-2024 10:38

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone-Appendix III
Sample ID: MW-02
Collection Date: 07-Mar-2024 12:10

ANALYTICAL REPORT
WorkOrder:HS24030489
Lab ID:HS24030489-02
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 12-Mar-2024		Analyst: JC
Boron	**1.53**		**0.110**	**0.200**	**mg/L**	10	13-Mar-2024 11:57
Calcium	**228**		**0.340**	**5.00**	**mg/L**	10	13-Mar-2024 11:57
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**233**		**4.00**	**10.0**	**mg/L**	20	13-Mar-2024 19:58
Sulfate	**1,080**		**4.00**	**10.0**	**mg/L**	20	13-Mar-2024 19:58
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,960**		**5.00**	**10.0**	**mg/L**	1	12-Mar-2024 10:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	15-Mar-2024 10:38

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone-Appendix III
Sample ID: MW-17
Collection Date: 07-Mar-2024 10:35

ANALYTICAL REPORT
WorkOrder:HS24030489
Lab ID:HS24030489-03
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 12-Mar-2024		Analyst: JC
Boron	**0.0275**		**0.0110**	**0.0200**	**mg/L**	1	12-Mar-2024 17:28
Calcium	**2.95**		**0.0340**	**0.500**	**mg/L**	1	12-Mar-2024 17:28
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**8.74**		**0.200**	**0.500**	**mg/L**	1	14-Mar-2024 14:50
Sulfate	**8.22**		**0.200**	**0.500**	**mg/L**	1	14-Mar-2024 14:50
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**818**		**5.00**	**10.0**	**mg/L**	1	12-Mar-2024 10:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	15-Mar-2024 10:38

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone-Appendix III
Sample ID: MW-18
Collection Date: 07-Mar-2024 12:00

ANALYTICAL REPORT
WorkOrder:HS24030489
Lab ID:HS24030489-04
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 12-Mar-2024		Analyst: JC
Boron	**0.0430**		**0.0110**	**0.0200**	**mg/L**	1	12-Mar-2024 17:30
Calcium	**65.8**		**0.0340**	**0.500**	**mg/L**	1	12-Mar-2024 17:30
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**11.2**		**0.200**	**0.500**	**mg/L**	1	14-Mar-2024 15:08
Sulfate	**38.0**		**0.200**	**0.500**	**mg/L**	1	14-Mar-2024 15:08
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,900**		**5.00**	**10.0**	**mg/L**	1	12-Mar-2024 10:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	15-Mar-2024 10:38

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

Client: TRC
Project: NRG Limestone-Appendix III
Sample ID: MW-19
Collection Date: 07-Mar-2024 08:10

ANALYTICAL REPORT
WorkOrder:HS24030489
Lab ID:HS24030489-05
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 12-Mar-2024		Analyst: JC
Boron	**0.0418**		**0.0110**	**0.0200**	**mg/L**	1	12-Mar-2024 17:32
Calcium	**35.7**		**0.0340**	**0.500**	**mg/L**	1	12-Mar-2024 17:32
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**37.6**		**0.200**	**0.500**	**mg/L**	1	13-Mar-2024 20:28
Sulfate	**104**		**0.400**	**1.00**	**mg/L**	2	14-Mar-2024 15:14
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**358**		**5.00**	**10.0**	**mg/L**	1	12-Mar-2024 10:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	15-Mar-2024 10:38

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

Client: TRC
Project: NRG Limestone-Appendix III
Sample ID: MW-20
Collection Date: 07-Mar-2024 08:55

ANALYTICAL REPORT
WorkOrder:HS24030489
Lab ID:HS24030489-06
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 12-Mar-2024		Analyst: JC
Boron	**0.0415**		**0.0110**	**0.0200**	**mg/L**	1	12-Mar-2024 17:34
Calcium	**30.4**		**0.0340**	**0.500**	**mg/L**	1	12-Mar-2024 17:34
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**16.9**		**0.200**	**0.500**	**mg/L**	1	14-Mar-2024 15:20
Sulfate	**34.1**		**0.200**	**0.500**	**mg/L**	1	14-Mar-2024 15:20
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**330**		**5.00**	**10.0**	**mg/L**	1	12-Mar-2024 10:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	15-Mar-2024 10:38

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone-Appendix III
Sample ID: MW-21
Collection Date: 07-Mar-2024 09:50

ANALYTICAL REPORT
WorkOrder:HS24030489
Lab ID:HS24030489-07
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 12-Mar-2024		Analyst: JC
Boron	**0.740**		**0.0110**	**0.0200**	**mg/L**	1	12-Mar-2024 17:35
Calcium	**56.5**		**0.0340**	**0.500**	**mg/L**	1	12-Mar-2024 17:35
Sodium	**15.8**		**0.0140**	**0.200**	**mg/L**	1	12-Mar-2024 17:35
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**12.7**		**0.200**	**0.500**	**mg/L**	1	13-Mar-2024 21:09
Sulfate	**258**		**1.00**	**2.50**	**mg/L**	5	14-Mar-2024 15:26
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**460**		**5.00**	**10.0**	**mg/L**	1	12-Mar-2024 10:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	15-Mar-2024 10:38

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone-Appendix III
Sample ID: MW-22
Collection Date: 07-Mar-2024 10:40

ANALYTICAL REPORT
WorkOrder:HS24030489
Lab ID:HS24030489-08
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 12-Mar-2024		Analyst: JC
Boron	**0.0434**		**0.0110**	**0.0200**	**mg/L**	1	12-Mar-2024 17:37
Calcium	**56.9**		**0.0340**	**0.500**	**mg/L**	1	12-Mar-2024 17:37
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**33.8**		**0.200**	**0.500**	**mg/L**	1	13-Mar-2024 21:15
Sulfate	**144**		**1.00**	**2.50**	**mg/L**	5	14-Mar-2024 15:32
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**370**		**5.00**	**10.0**	**mg/L**	1	12-Mar-2024 10:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	15-Mar-2024 10:38

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone-Appendix III
Sample ID: MW-27R
Collection Date: 07-Mar-2024 08:50

ANALYTICAL REPORT
WorkOrder:HS24030489
Lab ID:HS24030489-09
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 12-Mar-2024		Analyst: JC
Boron	**0.159**		**0.0110**	**0.0200**	**mg/L**	1	12-Mar-2024 17:39
Calcium	**471**		**0.680**	**10.0**	**mg/L**	20	13-Mar-2024 12:23
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**1,850**		**4.00**	**10.0**	**mg/L**	20	13-Mar-2024 21:21
Sulfate	**669**		**4.00**	**10.0**	**mg/L**	20	13-Mar-2024 21:21
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**4,920**		**5.00**	**10.0**	**mg/L**	1	12-Mar-2024 10:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	15-Mar-2024 10:38

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone-Appendix III
Sample ID: MW-28R
Collection Date: 07-Mar-2024 08:10

ANALYTICAL REPORT
WorkOrder:HS24030489
Lab ID:HS24030489-10
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 12-Mar-2024		Analyst: JC
Boron	**0.193**		**0.0110**	**0.0200**	**mg/L**	1	12-Mar-2024 17:41
Calcium	**586**		**0.680**	**10.0**	**mg/L**	20	13-Mar-2024 12:25
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**2,580**		**10.0**	**25.0**	**mg/L**	50	13-Mar-2024 21:27
Sulfate	**841**		**10.0**	**25.0**	**mg/L**	50	13-Mar-2024 21:27
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**3,550**		**5.00**	**10.0**	**mg/L**	1	12-Mar-2024 10:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	15-Mar-2024 10:38

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone-Appendix III
Sample ID: MW-47
Collection Date: 07-Mar-2024 08:50

ANALYTICAL REPORT
WorkOrder:HS24030489
Lab ID:HS24030489-11
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 12-Mar-2024		Analyst: JC
Boron	**0.0221**		**0.0110**	**0.0200**	**mg/L**	1	12-Mar-2024 17:50
Calcium	**39.0**		**0.0340**	**0.500**	**mg/L**	1	12-Mar-2024 17:50
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**124**		**1.00**	**2.50**	**mg/L**	5	13-Mar-2024 21:39
Sulfate	**39.3**		**0.200**	**0.500**	**mg/L**	1	13-Mar-2024 21:33
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**810**		**5.00**	**10.0**	**mg/L**	1	12-Mar-2024 10:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	15-Mar-2024 10:38

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone-Appendix III
Sample ID: MW-48
Collection Date: 07-Mar-2024 09:30

ANALYTICAL REPORT
WorkOrder:HS24030489
Lab ID:HS24030489-12
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 12-Mar-2024		Analyst: JC
Boron	**0.0206**		**0.0110**	**0.0200**	**mg/L**	1	12-Mar-2024 17:52
Calcium	**107**		**0.0340**	**0.500**	**mg/L**	1	12-Mar-2024 17:52
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**301**		**2.00**	**5.00**	**mg/L**	10	13-Mar-2024 21:57
Sulfate	**665**		**2.00**	**5.00**	**mg/L**	10	13-Mar-2024 21:57
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,390**		**5.00**	**10.0**	**mg/L**	1	12-Mar-2024 10:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	15-Mar-2024 10:38

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone-Appendix III
Sample ID: MW-49
Collection Date: 07-Mar-2024 09:45

ANALYTICAL REPORT
WorkOrder:HS24030489
Lab ID:HS24030489-13
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 12-Mar-2024		Analyst: JC
Boron	**0.0495**		**0.0110**	**0.0200**	**mg/L**	1	12-Mar-2024 17:54
Calcium	**120**		**0.0340**	**0.500**	**mg/L**	1	12-Mar-2024 17:54
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**315**		**2.00**	**5.00**	**mg/L**	10	13-Mar-2024 22:39
Sulfate	**37.6**		**0.200**	**0.500**	**mg/L**	1	13-Mar-2024 22:33
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**1,190**		**5.00**	**10.0**	**mg/L**	1	12-Mar-2024 10:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	15-Mar-2024 10:38

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

Client: TRC
Project: NRG Limestone-Appendix III
Sample ID: MW-50
Collection Date: 07-Mar-2024 11:10

ANALYTICAL REPORT
WorkOrder:HS24030489
Lab ID:HS24030489-14
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 12-Mar-2024		Analyst: JC
Boron	**0.659**		**0.0110**	**0.0200**	**mg/L**	1	12-Mar-2024 17:56
Calcium	**279**		**0.340**	**5.00**	**mg/L**	10	13-Mar-2024 12:27
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**95.5**		**0.200**	**0.500**	**mg/L**	1	13-Mar-2024 22:45
Sulfate	**1,490**		**4.00**	**10.0**	**mg/L**	20	13-Mar-2024 22:51
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**2,000**		**5.00**	**10.0**	**mg/L**	1	12-Mar-2024 10:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	15-Mar-2024 10:38

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

Client: TRC
Project: NRG Limestone-Appendix III
Sample ID: Field Blank
Collection Date: 07-Mar-2024 08:20

ANALYTICAL REPORT
WorkOrder:HS24030489
Lab ID:HS24030489-15
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 12-Mar-2024		Analyst: JC
Boron	< 0.0110		0.0110	0.0200	mg/L	1	12-Mar-2024 17:58
Calcium	**0.135**	J	**0.0340**	**0.500**	**mg/L**	1	12-Mar-2024 17:58
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	< 0.200		0.200	0.500	mg/L	1	14-Mar-2024 16:26
Sulfate	< 0.200		0.200	0.500	mg/L	1	14-Mar-2024 16:26
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	< 5.00		5.00	10.0	mg/L	1	12-Mar-2024 10:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	15-Mar-2024 10:38

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

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Client: TRC
Project: NRG Limestone-Appendix III
Sample ID: Field Duplicate
Collection Date: 07-Mar-2024 09:00

ANALYTICAL REPORT
WorkOrder:HS24030489
Lab ID:HS24030489-16
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 12-Mar-2024		Analyst: JC
Boron	**0.0427**		**0.0110**	**0.0200**	**mg/L**	1	12-Mar-2024 17:59
Calcium	**36.3**		**0.0340**	**0.500**	**mg/L**	1	12-Mar-2024 17:59
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**38.1**		**0.200**	**0.500**	**mg/L**	1	13-Mar-2024 23:03
Sulfate	**106**		**1.00**	**2.50**	**mg/L**	5	13-Mar-2024 23:09
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**2,730**		**5.00**	**10.0**	**mg/L**	1	12-Mar-2024 10:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	15-Mar-2024 10:38

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

Weight / Prep Log

Client: TRC
Project: NRG Limestone-Appendix III
WorkOrder: HS24030489

Batch ID: 208665 **Start Date:** 12 Mar 2024 08:30 **End Date:** 12 Mar 2024 08:30
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24030489-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030489-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030489-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030489-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030489-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030489-06		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030489-07		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030489-08		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030489-09		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030489-10		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030489-11		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030489-12		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030489-13		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030489-14		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030489-15		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030489-16		10 (mL)	10 (mL)	1	120 plastic HNO3

Client: TRC
Project: NRG Limestone-Appendix III
WorkOrder: HS24030489

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 208665 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS24030489-01	MW-01	07 Mar 2024 10:55		12 Mar 2024 08:30	12 Mar 2024 17:26	1
HS24030489-02	MW-02	07 Mar 2024 12:10		12 Mar 2024 08:30	13 Mar 2024 11:57	10
HS24030489-03	MW-17	07 Mar 2024 10:35		12 Mar 2024 08:30	12 Mar 2024 17:28	1
HS24030489-04	MW-18	07 Mar 2024 12:00		12 Mar 2024 08:30	12 Mar 2024 17:30	1
HS24030489-05	MW-19	07 Mar 2024 08:10		12 Mar 2024 08:30	12 Mar 2024 17:32	1
HS24030489-06	MW-20	07 Mar 2024 08:55		12 Mar 2024 08:30	12 Mar 2024 17:34	1
HS24030489-07	MW-21	07 Mar 2024 09:50		12 Mar 2024 08:30	12 Mar 2024 17:35	1
HS24030489-08	MW-22	07 Mar 2024 10:40		12 Mar 2024 08:30	12 Mar 2024 17:37	1
HS24030489-09	MW-27R	07 Mar 2024 08:50		12 Mar 2024 08:30	13 Mar 2024 12:23	20
HS24030489-09	MW-27R	07 Mar 2024 08:50		12 Mar 2024 08:30	12 Mar 2024 17:39	1
HS24030489-10	MW-28R	07 Mar 2024 08:10		12 Mar 2024 08:30	13 Mar 2024 12:25	20
HS24030489-10	MW-28R	07 Mar 2024 08:10		12 Mar 2024 08:30	12 Mar 2024 17:41	1
HS24030489-11	MW-47	07 Mar 2024 08:50		12 Mar 2024 08:30	12 Mar 2024 17:50	1
HS24030489-12	MW-48	07 Mar 2024 09:30		12 Mar 2024 08:30	12 Mar 2024 17:52	1
HS24030489-13	MW-49	07 Mar 2024 09:45		12 Mar 2024 08:30	12 Mar 2024 17:54	1
HS24030489-14	MW-50	07 Mar 2024 11:10		12 Mar 2024 08:30	13 Mar 2024 12:27	10
HS24030489-14	MW-50	07 Mar 2024 11:10		12 Mar 2024 08:30	12 Mar 2024 17:56	1
HS24030489-15	Field Blank	07 Mar 2024 08:20		12 Mar 2024 08:30	12 Mar 2024 17:58	1
HS24030489-16	Field Duplicate	07 Mar 2024 09:00		12 Mar 2024 08:30	12 Mar 2024 17:59	1
Batch ID: R461090 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS24030489-01	MW-01	07 Mar 2024 10:55			12 Mar 2024 10:00	1
HS24030489-02	MW-02	07 Mar 2024 12:10			12 Mar 2024 10:00	1
HS24030489-03	MW-17	07 Mar 2024 10:35			12 Mar 2024 10:00	1
HS24030489-04	MW-18	07 Mar 2024 12:00			12 Mar 2024 10:00	1
HS24030489-05	MW-19	07 Mar 2024 08:10			12 Mar 2024 10:00	1
HS24030489-06	MW-20	07 Mar 2024 08:55			12 Mar 2024 10:00	1
HS24030489-07	MW-21	07 Mar 2024 09:50			12 Mar 2024 10:00	1
HS24030489-08	MW-22	07 Mar 2024 10:40			12 Mar 2024 10:00	1
HS24030489-09	MW-27R	07 Mar 2024 08:50			12 Mar 2024 10:00	1
HS24030489-10	MW-28R	07 Mar 2024 08:10			12 Mar 2024 10:00	1
HS24030489-11	MW-47	07 Mar 2024 08:50			12 Mar 2024 10:00	1
HS24030489-12	MW-48	07 Mar 2024 09:30			12 Mar 2024 10:00	1
HS24030489-13	MW-49	07 Mar 2024 09:45			12 Mar 2024 10:00	1
HS24030489-14	MW-50	07 Mar 2024 11:10			12 Mar 2024 10:00	1
HS24030489-15	Field Blank	07 Mar 2024 08:20			12 Mar 2024 10:00	1
HS24030489-16	Field Duplicate	07 Mar 2024 09:00			12 Mar 2024 10:00	1

Client: TRC
Project: NRG Limestone-Appendix III
WorkOrder: HS24030489

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R461253 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS24030489-01	MW-01	07 Mar 2024 10:55			13 Mar 2024 19:52	5
HS24030489-01	MW-01	07 Mar 2024 10:55			13 Mar 2024 19:46	1
HS24030489-02	MW-02	07 Mar 2024 12:10			13 Mar 2024 19:58	20
HS24030489-05	MW-19	07 Mar 2024 08:10			13 Mar 2024 20:28	1
HS24030489-07	MW-21	07 Mar 2024 09:50			13 Mar 2024 21:09	1
HS24030489-08	MW-22	07 Mar 2024 10:40			13 Mar 2024 21:15	1
HS24030489-09	MW-27R	07 Mar 2024 08:50			13 Mar 2024 21:21	20
HS24030489-10	MW-28R	07 Mar 2024 08:10			13 Mar 2024 21:27	50
HS24030489-11	MW-47	07 Mar 2024 08:50			13 Mar 2024 21:39	5
HS24030489-11	MW-47	07 Mar 2024 08:50			13 Mar 2024 21:33	1
HS24030489-12	MW-48	07 Mar 2024 09:30			13 Mar 2024 21:57	10
HS24030489-13	MW-49	07 Mar 2024 09:45			13 Mar 2024 22:39	10
HS24030489-13	MW-49	07 Mar 2024 09:45			13 Mar 2024 22:33	1
HS24030489-14	MW-50	07 Mar 2024 11:10			13 Mar 2024 22:51	20
HS24030489-14	MW-50	07 Mar 2024 11:10			13 Mar 2024 22:45	1
HS24030489-16	Field Duplicate	07 Mar 2024 09:00			13 Mar 2024 23:09	5
HS24030489-16	Field Duplicate	07 Mar 2024 09:00			13 Mar 2024 23:03	1
Batch ID: R461351 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS24030489-03	MW-17	07 Mar 2024 10:35			14 Mar 2024 14:50	1
HS24030489-04	MW-18	07 Mar 2024 12:00			14 Mar 2024 15:08	1
HS24030489-05	MW-19	07 Mar 2024 08:10			14 Mar 2024 15:14	2
HS24030489-06	MW-20	07 Mar 2024 08:55			14 Mar 2024 15:20	1
HS24030489-07	MW-21	07 Mar 2024 09:50			14 Mar 2024 15:26	5
HS24030489-08	MW-22	07 Mar 2024 10:40			14 Mar 2024 15:32	5
HS24030489-15	Field Blank	07 Mar 2024 08:20			14 Mar 2024 16:26	1

Client: TRC
Project: NRG Limestone-Appendix III
WorkOrder: HS24030489

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R461383 (0)	**Test Name :** SUBCONTRACT ANALYSIS - FLOURIDE				**Matrix:** Water	
HS24030489-01	MW-01	07 Mar 2024 10:55			15 Mar 2024 10:38	1
HS24030489-02	MW-02	07 Mar 2024 12:10			15 Mar 2024 10:38	1
HS24030489-03	MW-17	07 Mar 2024 10:35			15 Mar 2024 10:38	1
HS24030489-04	MW-18	07 Mar 2024 12:00			15 Mar 2024 10:38	1
HS24030489-05	MW-19	07 Mar 2024 08:10			15 Mar 2024 10:38	1
HS24030489-06	MW-20	07 Mar 2024 08:55			15 Mar 2024 10:38	1
HS24030489-07	MW-21	07 Mar 2024 09:50			15 Mar 2024 10:38	1
HS24030489-08	MW-22	07 Mar 2024 10:40			15 Mar 2024 10:38	1
HS24030489-09	MW-27R	07 Mar 2024 08:50			15 Mar 2024 10:38	1
HS24030489-10	MW-28R	07 Mar 2024 08:10			15 Mar 2024 10:38	1
HS24030489-11	MW-47	07 Mar 2024 08:50			15 Mar 2024 10:38	1
HS24030489-12	MW-48	07 Mar 2024 09:30			15 Mar 2024 10:38	1
HS24030489-13	MW-49	07 Mar 2024 09:45			15 Mar 2024 10:38	1
HS24030489-14	MW-50	07 Mar 2024 11:10			15 Mar 2024 10:38	1
HS24030489-15	Field Blank	07 Mar 2024 08:20			15 Mar 2024 10:38	1
HS24030489-16	Field Duplicate	07 Mar 2024 09:00			15 Mar 2024 10:38	1

WorkOrder: HS24030489
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
A	Sodium	7440-23-5	0.0500	0.0732	0.0140	0.200

WorkOrder: HS24030489
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: HS24030489
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: HS24030489
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: NRG Limestone-Appendix III
WorkOrder: HS24030489

QC BATCH REPORT

Batch ID: 208665 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MBLK Sample ID: **MBLK-208665** Units: **mg/L** Analysis Date: **12-Mar-2024 16:41**
Client ID: Run ID: **ICPMS06_461059** SeqNo: **7883014** PrepDate: **12-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								
Sodium	< 0.0140	0.200								

LCS Sample ID: **LCS-208665** Units: **mg/L** Analysis Date: **12-Mar-2024 16:43**
Client ID: Run ID: **ICPMS06_461059** SeqNo: **7883015** PrepDate: **12-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4786	0.0200	0.5	0	95.7	80 - 120				
Calcium	4.727	0.500	5	0	94.5	80 - 120				
Sodium	4.909	0.200	5	0	98.2	80 - 120				

MS Sample ID: **HS24030492-02MS** Units: **mg/L** Analysis Date: **12-Mar-2024 17:10**
Client ID: Run ID: **ICPMS06_461059** SeqNo: **7883027** PrepDate: **12-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5341	0.0200	0.5	0.03723	99.4	80 - 120				
Calcium	112.1	0.500	5	95.62	329	80 - 120				SO
Sodium	378.9	0.200	5	333.4	911	80 - 120				SEO

MS Sample ID: **HS24030489-02MS** Units: **mg/L** Analysis Date: **12-Mar-2024 16:48**
Client ID: **MW-02** Run ID: **ICPMS06_461059** SeqNo: **7883018** PrepDate: **12-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	1.966	0.0200	0.5	1.498	93.5	80 - 120				E
Calcium	236.3	0.500	5	230.9	108	80 - 120				EO
Sodium	99.16	0.200	5	93.27	118	80 - 120				O

Client: TRC
Project: NRG Limestone-Appendix III
WorkOrder: HS24030489

QC BATCH REPORT

Batch ID: 208665 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MSD Sample ID: **HS24030492-02MSD** Units: **mg/L** Analysis Date: **12-Mar-2024 17:12**
Client ID: Run ID: **ICPMS06_461059** SeqNo: **7883028** PrepDate: **12-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5356	0.0200	0.5	0.03723	99.7	80 - 120	0.5341	0.284	20	
Calcium	114	0.500	5	95.62	367	80 - 120	112.1	1.67	20	SO
Sodium	383.4	0.200	5	333.4	1000	80 - 120	378.9	1.19	20	SEO

MSD Sample ID: **HS24030489-02MSD** Units: **mg/L** Analysis Date: **12-Mar-2024 16:50**
Client ID: **MW-02** Run ID: **ICPMS06_461059** SeqNo: **7883019** PrepDate: **12-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	2.133	0.0200	0.5	1.498	127	80 - 120	1.966	8.15	20	SE
Calcium	227	0.500	5	230.9	-77.6	80 - 120	236.3	4.01	20	SEO
Sodium	95.05	0.200	5	93.27	35.7	80 - 120	99.16	4.22	20	SO

PDS Sample ID: **HS24030492-02PDS** Units: **mg/L** Analysis Date: **12-Mar-2024 17:14**
Client ID: Run ID: **ICPMS06_461059** SeqNo: **7883029** PrepDate: **12-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5251	0.0200	0.5	0.03723	97.6	75 - 125				
Calcium	115.9	0.500	10	95.62	203	75 - 125				SO

PDS Sample ID: **HS24030489-02PDS** Units: **mg/L** Analysis Date: **13-Mar-2024 12:01**
Client ID: **MW-02** Run ID: **ICPMS06_461170** SeqNo: **7884784** PrepDate: **12-Mar-2024** DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	6.725	0.200	5	1.531	104	75 - 125				
Calcium	336.8	5.00	100	228.2	109	75 - 125				

PDS Sample ID: **HS24030492-02PDS** Units: **mg/L** Analysis Date: **13-Mar-2024 12:13**
Client ID: Run ID: **ICPMS06_461170** SeqNo: **7884790** PrepDate: **12-Mar-2024** DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	495.4	2.00	100	404	91.4	75 - 125				O

Client: TRC
Project: NRG Limestone-Appendix III
WorkOrder: HS24030489

QC BATCH REPORT

Batch ID: 208665 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

PDS Sample ID: **HS24030489-02PDS** Units: **mg/L** Analysis Date: **12-Mar-2024 16:52**
Client ID: **MW-02** Run ID: **ICPMS06_461059** SeqNo: **7883020** PrepDate: **12-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	102.3	0.200	10	93.27	90.4	75 - 125				O

SD Sample ID: **HS24030492-02SD** Units: **mg/L** Analysis Date: **12-Mar-2024 17:08**
Client ID: Run ID: **ICPMS06_461059** SeqNo: **7883026** PrepDate: **12-Mar-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Boron	0.06896	0.100					0.03723	0	10	J
Calcium	101.4	2.50					95.62	6.07	10	

SD Sample ID: **HS24030489-02SD** Units: **mg/L** Analysis Date: **13-Mar-2024 11:59**
Client ID: **MW-02** Run ID: **ICPMS06_461170** SeqNo: **7884783** PrepDate: **12-Mar-2024** DF: **50**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Boron	1.815	1.00					1.531	18.6	10	R
Calcium	250.9	25.0					228.2	9.95	10	

SD Sample ID: **HS24030492-02SD** Units: **mg/L** Analysis Date: **13-Mar-2024 12:11**
Client ID: Run ID: **ICPMS06_461170** SeqNo: **7884789** PrepDate: **12-Mar-2024** DF: **50**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Sodium	432.5	10.0					404	7.06	10	

SD Sample ID: **HS24030489-02SD** Units: **mg/L** Analysis Date: **12-Mar-2024 16:46**
Client ID: **MW-02** Run ID: **ICPMS06_461059** SeqNo: **7883017** PrepDate: **12-Mar-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Sodium	88.3	1.00					93.27	5.32	10	

The following samples were analyzed in this batch:

HS24030489-01	HS24030489-02	HS24030489-03	HS24030489-04
HS24030489-05	HS24030489-06	HS24030489-07	HS24030489-08
HS24030489-09	HS24030489-10	HS24030489-11	HS24030489-12
HS24030489-13	HS24030489-14	HS24030489-15	HS24030489-16

Client: TRC
Project: NRG Limestone-Appendix III
WorkOrder: HS24030489

QC BATCH REPORT

Batch ID: R461090 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WMBLK-03122024** Units: **mg/L** Analysis Date: **12-Mar-2024 10:00**
Client ID: Run ID: **Balance1_461090** SeqNo: **7882545** 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-03122024** Units: **mg/L** Analysis Date: **12-Mar-2024 10:00**
Client ID: Run ID: **Balance1_461090** SeqNo: **7882544** 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)	1004	10.0	1000	0	100	85 - 115				

DUP Sample ID: **HS24030534-03DUP** Units: **mg/L** Analysis Date: **12-Mar-2024 10:00**
Client ID: Run ID: **Balance1_461090** SeqNo: **7882543** 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)	1588	10.0					1572	1.01	20	

DUP Sample ID: **HS24030489-02DUP** Units: **mg/L** Analysis Date: **12-Mar-2024 10:00**
Client ID: **MW-02** Run ID: **Balance1_461090** SeqNo: **7882524** 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)	2060	10.0					1964	4.77	20	

The following samples were analyzed in this batch:

HS24030489-01	HS24030489-02	HS24030489-03	HS24030489-04
HS24030489-05	HS24030489-06	HS24030489-07	HS24030489-08
HS24030489-09	HS24030489-10	HS24030489-11	HS24030489-12
HS24030489-13	HS24030489-14	HS24030489-15	HS24030489-16

Client: TRC
Project: NRG Limestone-Appendix III
WorkOrder: HS24030489

QC BATCH REPORT

Batch ID: R461253 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **13-Mar-2024 19:28**
Client ID: Run ID: **ICS-Integrion_461253** SeqNo: **7886617** 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: **13-Mar-2024 19:40**
Client ID: Run ID: **ICS-Integrion_461253** SeqNo: **7886618** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.93	0.500	20	0	99.7	90 - 110				
Sulfate	20.6	0.500	20	0	103	90 - 110				

MS Sample ID: **HS24030489-11MS** Units: **mg/L** Analysis Date: **13-Mar-2024 21:45**
Client ID: **MW-47** Run ID: **ICS-Integrion_461253** SeqNo: **7886633** PrepDate: DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	173	2.50	50	124	98.0	80 - 120				
Sulfate	86.24	2.50	50	38.49	95.5	80 - 120				

MS Sample ID: **HS24030489-02MS** Units: **mg/L** Analysis Date: **13-Mar-2024 20:04**
Client ID: **MW-02** Run ID: **ICS-Integrion_461253** SeqNo: **7886622** PrepDate: DF: **20**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	436.2	10.0	200	233	102	80 - 120				
Sulfate	1225	10.0	200	1081	72.0	80 - 120				SO

MSD Sample ID: **HS24030489-11MSD** Units: **mg/L** Analysis Date: **13-Mar-2024 21:51**
Client ID: **MW-47** Run ID: **ICS-Integrion_461253** SeqNo: **7886634** PrepDate: DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	173.4	2.50	50	124	98.8	80 - 120	173	0.228	20	
Sulfate	87.26	2.50	50	38.49	97.5	80 - 120	86.24	1.17	20	

Client: TRC
Project: NRG Limestone-Appendix III
WorkOrder: HS24030489

QC BATCH REPORT

Batch ID: **R461253 (0)** **Instrument:** **ICS-Integrion** **Method:** **ANIONS BY E300.0, REV 2.1, 1993**

MSD Sample ID: **HS24030489-02MSD** Units: **mg/L** Analysis Date: **13-Mar-2024 20:10**
Client ID: **MW-02** Run ID: **ICS-Integrion_461253** SeqNo: **7886623** PrepDate: DF: **20**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	435.4	10.0	200	233	101	80 - 120	436.2	0.188	20	
Sulfate	1228	10.0	200	1081	73.6	80 - 120	1225	0.263	20	SO

The following samples were analyzed in this batch:

HS24030489-01	HS24030489-02	HS24030489-05	HS24030489-07
HS24030489-08	HS24030489-09	HS24030489-10	HS24030489-11
HS24030489-12	HS24030489-13	HS24030489-14	HS24030489-16

Client: TRC
Project: NRG Limestone-Appendix III
WorkOrder: HS24030489

QC BATCH REPORT

Batch ID: R461351 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **14-Mar-2024 14:33**
Client ID: Run ID: **ICS-Integrion_461351** SeqNo: **7888807** 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: **14-Mar-2024 14:39**
Client ID: Run ID: **ICS-Integrion_461351** SeqNo: **7888808** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.26	0.500	20	0	101	90 - 110				
Sulfate	21.11	0.500	20	0	106	90 - 110				

MS Sample ID: **HS24030754-02MS** Units: **mg/L** Analysis Date: **14-Mar-2024 19:36**
Client ID: Run ID: **ICS-Integrion_461351** SeqNo: **7888837** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	42.73	0.500	10	33.44	92.8	80 - 120				
Sulfate	132.8	0.500	10	131.1	17.0	80 - 120				SEO

MS Sample ID: **HS24030709-05MS** Units: **mg/L** Analysis Date: **14-Mar-2024 18:19**
Client ID: Run ID: **ICS-Integrion_461351** SeqNo: **7888829** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	39.04	0.500	10	29.72	93.2	80 - 120				
Sulfate	11.28	0.500	10	1.076	102	80 - 120				

MS Sample ID: **HS24030489-03MS** Units: **mg/L** Analysis Date: **14-Mar-2024 14:56**
Client ID: **MW-17** Run ID: **ICS-Integrion_461351** SeqNo: **7888810** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.56	0.500	10	8.735	118	80 - 120				
Sulfate	20.15	0.500	10	8.225	119	80 - 120				

Client: TRC
Project: NRG Limestone-Appendix III
WorkOrder: HS24030489

QC BATCH REPORT

Batch ID: R461351 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MSD Sample ID: **HS24030754-02MSD** Units: **mg/L** Analysis Date: **14-Mar-2024 19:42**
Client ID: Run ID: **ICS-Integrion_461351** SeqNo: **7888838** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	42.79	0.500	10	33.44	93.5	80 - 120	42.73	0.147	20	
Sulfate	132.7	0.500	10	131.1	15.8	80 - 120	132.8	0.0929	20	SEO

MSD Sample ID: **HS24030709-05MSD** Units: **mg/L** Analysis Date: **14-Mar-2024 18:25**
Client ID: Run ID: **ICS-Integrion_461351** SeqNo: **7888830** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	39.24	0.500	10	29.72	95.2	80 - 120	39.04	0.498	20	
Sulfate	11.49	0.500	10	1.076	104	80 - 120	11.28	1.86	20	

MSD Sample ID: **HS24030489-03MSD** Units: **mg/L** Analysis Date: **14-Mar-2024 15:02**
Client ID: **MW-17** Run ID: **ICS-Integrion_461351** SeqNo: **7888811** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.53	0.500	10	8.735	118	80 - 120	20.56	0.151	20	
Sulfate	20.15	0.500	10	8.225	119	80 - 120	20.15	0.0189	20	

The following samples were analyzed in this batch:

HS24030489-03	HS24030489-04	HS24030489-05	HS24030489-06
HS24030489-07	HS24030489-08	HS24030489-15	

Client: TRC
Project: NRG Limestone-Appendix III
WorkOrder: **HS24030489**

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
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: HS24030489 **Date/Time Received:** **08-Mar-2024 10:36**

Client Name: TRC-HOU **Received by:** **Jacob Coronado**

Completed By:	/S/ Paresh M. Giga	11-Mar-2024 10:38	**Reviewed by:**	/S/ Andy C. Neir	11-Mar-2024 21:49
	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 ☐	2 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:312145/312144
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?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	1.4C/1.3C; 1.2C/1.1C U/C	IR31	
Cooler(s)/Kit(s):	48161/51801		
Date/Time sample(s) sent to storage:	3/11/24 11:00		
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:

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 2

COC ID: 312145

HS24030489

WV

TRC

NRG Limestone-Appendix III

ALS Project Manager:

Customer Information		Project Information			
Purchase Order	211385	Project Name	NRG Limestone- Appendix III	A	ICP_TW (B and Ca (App III))
Work Order		Project Number	528473.0000.0000	B	300_W (Cl, SO4)
Company Name	TRC Corporation	Bill To Company	TRC	C	Sub_Fluoride (Sub Fluoride to ALS Michigan)
Send Report To	Lori Burris	Invoice Attn	A/P	D	TDS_W 2540C (TDS)
Address	14701 St. Mary's Lane Suite 500	Address	14701 St. Mary's Lane Suite 500	E	ICP_TW (B, Ca, and Na (App 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-01	3-7-24	1055	Water	2,8	3	X	X	X	X							
2	MW-02		1210	Water	2,8	3	X	X	X	X							
3	MW-17		1035	Water	2,8	3	X	X	X	X							
4	MW-18		1200	Water	2,8	3	X	X	X	X							
5	MW-19		810	Water	2,8	3	X	X	X	X							
6	MW-20		855	Water	2,8	3	X	X	X	X							
7	MW-21		950	Water	2,8	3		X	X	X	X						
8	MW-22		1040	Water	2,8	3	X	X	X	X							
9	MW-27R		850	Water	2,8	3	X	X	X	X							
10	MW-28R		810	Water	2,8	3	X	X	X	X							

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

Shipment Method: Consult. drop off

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

Results Due Date:

Relinquished by: Ikyas Seleyi	Date: 3-8-24	Time: 1036	Received by:
Relinquished by:	Date: 3/8/24	Time: 1036	Received by (Laboratory): SC
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: NRG Limestone□PRIVILEGED & CONFIDENTIAL

Cooler ID	Cooler Temp.
3 Coolers	

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.

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Fort Collins, CO +1 970 490 1511
Everett, WA +1 425 356 2600
Holland, MI +1 616 399 6070

Chain of Custody Form

COC ID: 312144

HS24030489

, WV

TRC

NRG Limestone-Appendix III

ALS Project Manager:

Customer Information		Project Information			
Purchase Order	211385	Project Name	NRG Limestone- Appendix III	A	ICP_TW (B and Ca (App III))
Work Order		Project Number	528473.0000.0000	B	300_W (Cl, SO4)
Company Name	TRC Corporation	Bill To Company	TRC	C	Sub_Fluoride (Sub Fluoride to ALS Michigan)
Send Report To	Lori Burris	Invoice Attn	A/P	D	TDS_W 2540C (TDS)
Address	14701 St. Mary's Lane Suite 500	Address	14701 St. Mary's Lane Suite 500	E	ICP_TW (B, Ca, and Na (App 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-47	3-7-24	850	Water	2,8	3	X	X	X	X							
2	MW-48		930	Water	2,8	3	X	X	X	X							
3	MW-49		945	Water	2,8	3	X	X	X	X							
4	MW-50		1110	Water	2,8	3	X	X	X	X							
5	MW-02 - MS		1210	Water	2,8	3	X	X	X	X							
6	MW-02 - MSD		1210	Water	2,8	3	X	X	X	X							
7	Field Blank		820	Water	2,8	3	X	X	X	X							
8	Field Duplicate		900	Water	2,8	3	X	X	X	X							
9																	
10																	

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

Shipment Method: Consult Drop off

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

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Ilya Sedigi	3-8-24	1636	
Relinquished by:	Date: 3/8/24	Time: 1036	Received by (Laboratory): JC
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: NRG Limestone PRIVILEGED & CONFIDENTIAL

Cooler ID	Cooler Temp.

QC Package: (Check One Box Below)

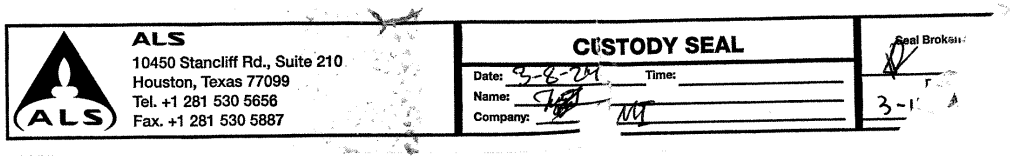
☐ Level II Std QC ☒ TRRP Checklist
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other

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

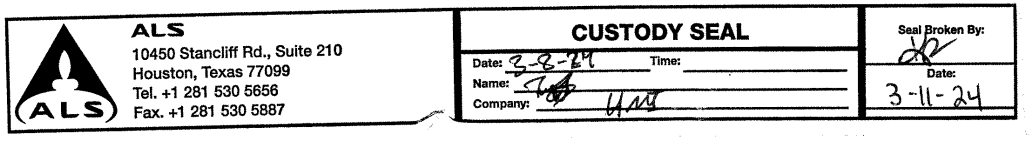
Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is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

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Cooler 51801



Cooler 48161

15-Mar-2024

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

Re: **HS24030489** Work Order: **24030779**

Dear Andrew,

ALS Environmental received 16 samples on 12-Mar-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 27.

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

Client: ALS Environmental
Project: HS24030489
Work Order: **24030779**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
24030779-01	MW-01	Water	HS24030489-01	3/7/2024 10:55	3/12/2024 09:30	☐
24030779-02	MW-02	Water	HS24030489-02	3/7/2024 12:10	3/12/2024 09:30	☐
24030779-03	MW-17	Water	HS24030489-03	3/7/2024 10:35	3/12/2024 09:30	☐
24030779-04	MW-18	Water	HS24030489-04	3/7/2024 12:00	3/12/2024 09:30	☐
24030779-05	MW-19	Water	HS24030489-05	3/7/2024 08:10	3/12/2024 09:30	☐
24030779-06	MW-20	Water	HS24030489-06	3/7/2024 08:55	3/12/2024 09:30	☐
24030779-07	MW-21	Water	HS24030489-07	3/7/2024 09:50	3/12/2024 09:30	☐
24030779-08	MW-22	Water	HS24030489-08	3/7/2024 10:40	3/12/2024 09:30	☐
24030779-09	MW-27R	Water	HS24030489-09	3/7/2024 08:50	3/12/2024 09:30	☐
24030779-10	MW-28R	Water	HS24030489-10	3/7/2024 08:10	3/12/2024 09:30	☐
24030779-11	MW-47	Water	HS24030489-11	3/7/2024 08:50	3/12/2024 09:30	☐
24030779-12	MW-48	Water	HS24030489-12	3/7/2024 09:30	3/12/2024 09:30	☐
24030779-13	MW-49	Water	HS24030489-13	3/7/2024 09:45	3/12/2024 09:30	☐
24030779-14	MW-50	Water	HS24030489-14	3/7/2024 11:10	3/12/2024 09:30	☐
24030779-15	Field Blank	Water	HS24030489-15	3/7/2024 08:20	3/12/2024 09:30	☐
24030779-16	Field Duplicate	Water	HS24030489-16	3/7/2024 09:00	3/12/2024 09:30	☐

WET CHEMISTRY DATA ASSESSMENT CHECKLIST

Wet Chemistry	Batch Number: TITRATOR 1_240312A	Instrument ID: TITRATOR1
Method: FL_4500C_W	Work order Number (s): 24030779	
Analyst Name: MS	Date: 3/12/2024 Reviewer Name: RM	Date: 3/12/24

	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: HS24030489
WorkOrder: **24030779**

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: HS24030489
Work Order: 24030779

Case Narrative

Samples for the above noted Work Order were received on 03/12/2024. 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.

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ALS Group, USA

Date: *15-Mar-2024*

Client:	ALS Environmental		
Project:	HS24030489	**Work Order:**	24030779
Sample ID:	MW-01	**Lab ID:**	24030779-01
Collection Date:	3/7/2024 10:55 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	3/12/2024 03:38 PM

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

Client:	ALS Environmental		
Project:	HS24030489	**Work Order:**	24030779
Sample ID:	MW-02	**Lab ID:**	24030779-02
Collection Date:	3/7/2024 12:10 PM	**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	3/12/2024 03:38 PM

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

Client:	ALS Environmental		
Project:	HS24030489	**Work Order:**	24030779
Sample ID:	MW-17	**Lab ID:**	24030779-03
Collection Date:	3/7/2024 10:35 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.150**		**0.10**	**mg/L**	1	3/12/2024 03:38 PM

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

Client:	ALS Environmental		
Project:	HS24030489	**Work Order:**	24030779
Sample ID:	MW-18	**Lab ID:**	24030779-04
Collection Date:	3/7/2024 12:00 PM	**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	3/12/2024 03:38 PM

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

Client:	ALS Environmental		
Project:	HS24030489	**Work Order:**	24030779
Sample ID:	MW-19	**Lab ID:**	24030779-05
Collection Date:	3/7/2024 08:10 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	3/12/2024 03:38 PM

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

Client:	ALS Environmental		
Project:	HS24030489	**Work Order:**	24030779
Sample ID:	MW-20	**Lab ID:**	24030779-06
Collection Date:	3/7/2024 08:55 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.220**		**0.10**	**mg/L**	1	3/12/2024 03:38 PM

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

Client:	ALS Environmental		
Project:	HS24030489	**Work Order:**	24030779
Sample ID:	MW-21	**Lab ID:**	24030779-07
Collection Date:	3/7/2024 09:50 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	3/12/2024 03:38 PM

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

Client:	ALS Environmental		
Project:	HS24030489	**Work Order:**	24030779
Sample ID:	MW-22	**Lab ID:**	24030779-08
Collection Date:	3/7/2024 10:40 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	3/12/2024 03:38 PM

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

Client:	ALS Environmental		
Project:	HS24030489	**Work Order:**	24030779
Sample ID:	MW-27R	**Lab ID:**	24030779-09
Collection Date:	3/7/2024 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	3/12/2024 03:38 PM

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

Client:	ALS Environmental		
Project:	HS24030489	**Work Order:**	24030779
Sample ID:	MW-28R	**Lab ID:**	24030779-10
Collection Date:	3/7/2024 08:10 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.230**		**0.10**	**mg/L**	1	3/12/2024 03:38 PM

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

Client:	ALS Environmental		
Project:	HS24030489	**Work Order:**	24030779
Sample ID:	MW-47	**Lab ID:**	24030779-11
Collection Date:	3/7/2024 08:50 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.350**		**0.10**	**mg/L**	1	3/12/2024 03:38 PM

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

Client:	ALS Environmental		
Project:	HS24030489	**Work Order:**	24030779
Sample ID:	MW-48	**Lab ID:**	24030779-12
Collection Date:	3/7/2024 09:30 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.170**		**0.10**	**mg/L**	1	3/12/2024 03:38 PM

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

Client:	ALS Environmental		
Project:	HS24030489	**Work Order:**	24030779
Sample ID:	MW-49	**Lab ID:**	24030779-13
Collection Date:	3/7/2024 09:45 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	3/12/2024 03:38 PM

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

Client:	ALS Environmental		
Project:	HS24030489	**Work Order:**	24030779
Sample ID:	MW-50	**Lab ID:**	24030779-14
Collection Date:	3/7/2024 11:10 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	3/12/2024 03:38 PM

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

Client:	ALS Environmental		
Project:	HS24030489	**Work Order:**	24030779
Sample ID:	Field Blank	**Lab ID:**	24030779-15
Collection Date:	3/7/2024 08:20 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	3/12/2024 03:38 PM

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

Client:	ALS Environmental		
Project:	HS24030489	**Work Order:**	24030779
Sample ID:	Field Duplicate	**Lab ID:**	24030779-16
Collection Date:	3/7/2024 09:00 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	3/12/2024 03:38 PM

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

ALS Group, USA

Date: 15-Mar-24

Client: ALS Environmental

Work Order: 24030779

Project: HS24030489

QC BATCH REPORT

Batch ID: **R398225** Instrument ID **Titrator 1** Method: **A4500-F C-11**

MBLK Sample ID: **MB-R398225-R398225** Units: **mg/L** Analysis Date: **3/12/2024 03:38 PM**

Client ID: Run ID: **TITRATOR 1_240312A** SeqNo: **10555562** 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-R398225-R398225** Units: **mg/L** Analysis Date: **3/12/2024 03:38 PM**

Client ID: Run ID: **TITRATOR 1_240312A** SeqNo: **10555563** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	4.95	0.10	5	0	99	90-111	0			

MS Sample ID: **24030779-02A MS** Units: **mg/L** Analysis Date: **3/12/2024 03:38 PM**

Client ID: **MW-02** Run ID: **TITRATOR 1_240312A** SeqNo: **10555566** 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	0.04	101	90-111	0			

MS Sample ID: **24030779-12A MS** Units: **mg/L** Analysis Date: **3/12/2024 03:38 PM**

Client ID: **MW-48** Run ID: **TITRATOR 1_240312A** SeqNo: **10555578** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.12	0.10	5	0.17	99	90-111	0			

MSD Sample ID: **24030779-02A MSD** Units: **mg/L** Analysis Date: **3/12/2024 03:38 PM**

Client ID: **MW-02** Run ID: **TITRATOR 1_240312A** SeqNo: **10555567** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.12	0.10	5	0.04	102	90-111	5.09	0.588	20	

MSD Sample ID: **24030779-12A MSD** Units: **mg/L** Analysis Date: **3/12/2024 03:38 PM**

Client ID: **MW-48** Run ID: **TITRATOR 1_240312A** SeqNo: **10555579** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.21	0.10	5	0.17	101	90-111	5.12	1.74	20	

The following samples were analyzed in this batch:

24030779-01A	24030779-02A	24030779-03A
24030779-04A	24030779-05A	24030779-06A
24030779-07A	24030779-08A	24030779-09A
24030779-10A	24030779-11A	24030779-12A
24030779-13A	24030779-14A	24030779-15A
24030779-16A		

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

24030779

ALS - HOUSTON: ALS Environmental
Project: HS24030489

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:** **24995**

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:	HS24030489
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS24030489-01**	**MW-01**	**Water**	**07 Mar 2024 10:55**
	Fluoride by ISE 4500. EQuis EDD			15 Mar 2024
2.	**HS24030489-02**	**MW-02**	**Water**	**07 Mar 2024 12:10**
	Fluoride by ISE 4500. EQuis EDD			15 Mar 2024
3.	**HS24030489-03**	**MW-17**	**Water**	**07 Mar 2024 10:35**
	Fluoride by ISE 4500. EQuis EDD			15 Mar 2024
4.	**HS24030489-04**	**MW-18**	**Water**	**07 Mar 2024 12:00**
	Fluoride by ISE 4500. EQuis EDD			15 Mar 2024
5.	**HS24030489-05**	**MW-19**	**Water**	**07 Mar 2024 08:10**
	Fluoride by ISE 4500. EQuis EDD			15 Mar 2024
6.	**HS24030489-06**	**MW-20**	**Water**	**07 Mar 2024 08:55**
	Fluoride by ISE 4500. EQuis EDD			15 Mar 2024
7.	**HS24030489-07**	**MW-21**	**Water**	**07 Mar 2024 09:50**
	Fluoride by ISE 4500. EQuis EDD			15 Mar 2024
8.	**HS24030489-08**	**MW-22**	**Water**	**07 Mar 2024 10:40**
	Fluoride by ISE 4500. EQuis EDD			15 Mar 2024
9.	**HS24030489-09**	**MW-27R**	**Water**	**07 Mar 2024 08:50**

3.4° C

IR3

24030779

ALS - HOUSTON: ALS Environmental
Project: HS24030489

Subcontract Chain of Custody

SAMPLING STATE: **Texas** **COC ID:** **24995**

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
	Fluoride by ISE 4500. EQuis EDD			15 Mar 2024
10.	**HS24030489-10**	**MW-28R**	**Water**	**07 Mar 2024 08:10**
	Fluoride by ISE 4500. EQuis EDD			15 Mar 2024
11.	**HS24030489-11**	**MW-47**	**Water**	**07 Mar 2024 08:50**
	Fluoride by ISE 4500. EQuis EDD			15 Mar 2024
12.	**HS24030489-12**	**MW-48**	**Water**	**07 Mar 2024 09:30**
	Fluoride by ISE 4500. EQuis EDD			15 Mar 2024
13.	**HS24030489-13**	**MW-49**	**Water**	**07 Mar 2024 09:45**
	Fluoride by ISE 4500. EQuis EDD			15 Mar 2024
14.	**HS24030489-14**	**MW-50**	**Water**	**07 Mar 2024 11:10**
	Fluoride by ISE 4500. EQuis EDD			15 Mar 2024
15.	**HS24030489-15**	**Field Blank**	**Water**	**07 Mar 2024 08:20**
	Fluoride by ISE 4500. EQuis EDD			15 Mar 2024
16.	**HS24030489-16**	**Field Duplicate**	**Water**	**07 Mar 2024 09:00**
	Fluoride by ISE 4500. EQuis EDD			15 Mar 2024

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.
HS24030489-02 = ms/msd

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

Relinquished By: AM Date/Time: 3/11/24 18:00

Received By: Date/Time: 3/12/24 0730

Cooler ID(s): Temperature(s): 3.4 C DLS

Privileged and Confidential

ALS Group, USA
Holland, Michigan

Sample Receipt Checklist

Client Name: **ALS - HOUSTON** Date/Time Received: **12-Mar-24 09:30**

Work Order: **24030779** Received by: **JD**

Checklist completed by Jason Delinger (eSignature) 12-Mar-24 (Date) Reviewed by: Chelsey Cook (eSignature) 13-Mar-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):	3.4/4.4 c	ir3	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	3/12/2024 10:33:49 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:

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: **HS24031757**

Laboratory Results for: **NRG Limestone-Appendix III-Resa**

Dear Lori Burris,

ALS Environmental received 8 sample(s) on Mar 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:	NRG Limestone-Appendix III-Resa	
WorkOrder:	**HS24031757**	

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:	NRG Limestone-Appendix III-Resa
WorkOrder:	**HS24031757**

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: 04/04/2024					
Project Name: NRG Limestone-Appendix III-Resa			Laboratory Job Number: HS24031757					
Reviewer Name: Andy Neir			Prep Batch Number(s): 209692,R462701,R462881,R463005					
#[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: 04/04/2024				
Project Name: NRG Limestone-Appendix III-Resa			Laboratory Job Number: HS24031757				
Reviewer Name: Andy Neir			Prep Batch Number(s): 209692,R462701,R462881,R463005				
#[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: 04/04/2024
Project Name: NRG Limestone-Appendix III-Resa	Laboratory Job Number: HS24031757
Reviewer Name: Andy Neir	Prep Batch Number(s): 209692,R462701,R462881,R463005

ER#[5]	Description
1	Batch R462701, Anions Method E300, sample HS24031767-03, MS and MSD were performed on unrelated sample
2	The analysis for Fluoride 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

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: NRG Limestone-Appendix III-Resa
WorkOrder: HS24031757
Start Date: 02-Apr-2024 End Date: 03-Apr-2024

Run ID:ICPMS06_462809
Instrument:ICPMS06
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
ICV	1	02-Apr-2024 11:13	020_ICV.d	B CA
LLICV2	1	02-Apr-2024 11:18	023LCV2.d	B CA
ICB	1	02-Apr-2024 11:20	024_ICB.d	B CA
LLICV5	1	02-Apr-2024 11:26	026LCV5.d	B CA
ICSA	1	02-Apr-2024 11:28	027ICSA.d	B CA
ICSAB	1	02-Apr-2024 11:30	028ICSB.d	B CA
CCV 1	1	02-Apr-2024 11:44	031_CCV.d	B CA
CCB 1	1	02-Apr-2024 11:46	032_CCB.d	B CA
ZZZZZZSD	100	02-Apr-2024 12:03	040SMPL.d	CA
ZZZZZZPDS	20	02-Apr-2024 12:05	041SMPL.d	CA
CCB 2	1	02-Apr-2024 12:10	044_CCB.d	B CA
CCV 2	1	02-Apr-2024 12:18	046_CCV.d	B CA
ZZZZZZSD	500	02-Apr-2024 12:22	048SMPL.d	CA
ZZZZZZPDS	100	02-Apr-2024 12:24	049SMPL.d	CA
MW-02	2	02-Apr-2024 12:26	050SMPL.d	B CA
MW-50	20	02-Apr-2024 12:28	051SMPL.d	CA
CCV 3	1	02-Apr-2024 12:40	057_CCV.d	B CA
CCB 3	1	02-Apr-2024 12:42	058_CCB.d	B CA
CCV 4	1	02-Apr-2024 13:14	066_CCV.d	B CA
CCB 4	1	02-Apr-2024 13:16	067_CCB.d	B CA
CCV 5	1	02-Apr-2024 13:42	078_CCV.d	B CA
CCB 5	1	02-Apr-2024 13:44	079_CCB.d	B CA
CCV 6	1	02-Apr-2024 14:06	090_CCV.d	B CA
CCB 6	1	02-Apr-2024 14:08	091_CCB.d	B CA
CCV 7	1	02-Apr-2024 14:32	101_CCV.d	B CA
CCB 7	1	02-Apr-2024 14:34	102_CCB.d	B CA
CCV 8	1	02-Apr-2024 15:00	113_CCV.d	B CA
CCB 8	1	02-Apr-2024 15:02	114_CCB.d	B CA
CCV 9	1	02-Apr-2024 15:28	125_CCV.d	B CA
CCB 9	1	02-Apr-2024 15:30	126_CCB.d	B CA
CCV 10	1	02-Apr-2024 15:58	137_CCV.d	B CA
CCB 10	1	02-Apr-2024 15:59	138_CCB.d	B CA
CCV 11	1	02-Apr-2024 16:17	145_CCV.d	B CA
CCB 11	1	02-Apr-2024 16:19	146_CCB.d	B CA
CCV 12	1	02-Apr-2024 16:46	157_CCV.d	B CA
CCB 12	1	02-Apr-2024 16:47	158_CCB.d	B CA
CCV 13	1	02-Apr-2024 17:16	169_CCV.d	B CA
CCB 13	1	02-Apr-2024 17:18	170_CCB.d	B CA
CCB 14	1	02-Apr-2024 17:42	176_CCB.d	B CA
CCV 14	1	02-Apr-2024 17:47	178_CCV.d	B CA
CCV 15	1	02-Apr-2024 18:11	189_CCV.d	B CA
CCB 15	1	02-Apr-2024 18:13	190_CCB.d	B CA
CCV 16	1	02-Apr-2024 18:35	201_CCV.d	B CA
CCB 16	1	02-Apr-2024 18:37	202_CCB.d	B CA
CCV 17	1	02-Apr-2024 18:56	210_CCV.d	B CA
CCB 17	1	02-Apr-2024 18:58	211_CCB.d	B CA
CCV 18	1	02-Apr-2024 19:12	218_CCV.d	B CA
CCB 18	1	02-Apr-2024 19:14	219_CCB.d	B CA
ICCV 19	1	02-Apr-2024 20:19	246_ICV.d	B CA
LLCCV5	1	02-Apr-2024 20:21	247LCV5.d	B CA

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: NRG Limestone-Appendix III-Resa
WorkOrder: HS24031757
Start Date: 02-Apr-2024 End Date: 03-Apr-2024

Run ID:ICPMS06_462809
Instrument:ICPMS06
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
LLCCV2	1	02-Apr-2024 20:23	248LCV2.d	B CA
ICCB 19	1	02-Apr-2024 20:25	249_ICB.d	B CA
CCV 20	1	02-Apr-2024 20:29	251_CCV.d	B CA
CCB 20	1	02-Apr-2024 20:31	252_CCB.d	B CA
CCV 21	1	02-Apr-2024 20:43	258_CCV.d	B CA
CCB 21	1	02-Apr-2024 20:44	259_CCB.d	B CA
CCV 22	1	02-Apr-2024 20:56	265_CCV.d	B CA
CCB 22	1	02-Apr-2024 20:58	266_CCB.d	B CA
CCV 23	1	02-Apr-2024 21:10	272_CCV.d	B CA
CCB 23	1	02-Apr-2024 21:12	273_CCB.d	B CA
CCV 24	1	02-Apr-2024 21:37	281_CCV.d	B CA
CCB 24	1	02-Apr-2024 21:39	282_CCB.d	B CA
CCV 25	1	02-Apr-2024 21:55	290_CCV.d	B CA
CCB 25	1	02-Apr-2024 21:56	291_CCB.d	B CA
CCV 26	1	02-Apr-2024 22:06	296_CCV.d	B CA
CCB 26	1	02-Apr-2024 22:08	297_CCB.d	B CA
CCV 27	1	02-Apr-2024 22:27	307_CCV.d	B CA
CCB 27	1	02-Apr-2024 22:29	308_CCB.d	B CA
CCV 28	1	02-Apr-2024 22:35	311_CCV.d	B CA
CCB 28	1	02-Apr-2024 22:37	312_CCB.d	B CA
ICCV 29	1	02-Apr-2024 23:07	325_ICV.d	B CA
LLCCV5	1	02-Apr-2024 23:09	326LCV5.d	B CA
LLCCV2	1	02-Apr-2024 23:11	327LCV2.d	B CA
ICCB 29	1	02-Apr-2024 23:13	328_ICB.d	B CA
ICSA	1	02-Apr-2024 23:15	329ICSA.d	B CA
ICSAB	1	02-Apr-2024 23:17	330ICSB.d	B CA
CCV 30	1	02-Apr-2024 23:21	332_CCV.d	B CA
CCB 30	1	02-Apr-2024 23:23	333_CCB.d	B CA
CCV 31	1	02-Apr-2024 23:28	336_CCV.d	B CA
CCB 31	1	02-Apr-2024 23:30	337_CCB.d	B CA
CCV 32	1	02-Apr-2024 23:44	344_CCV.d	B CA
CCB 32	1	02-Apr-2024 23:46	345_CCB.d	B CA
CCV 33	1	03-Apr-2024 00:03	354_CCV.d	B CA
CCB 33	1	03-Apr-2024 00:05	355_CCB.d	B CA
CCV 34	1	03-Apr-2024 00:23	364_CCV.d	B CA
CCB 34	1	03-Apr-2024 00:25	365_CCB.d	B CA
CCV 35	1	03-Apr-2024 00:41	373_CCV.d	B CA
CCB 35	1	03-Apr-2024 00:43	374_CCB.d	B CA
CCV 36	1	03-Apr-2024 00:55	380_CCV.d	B CA
CCB 36	1	03-Apr-2024 00:57	381_CCB.d	B CA
LLCCV2	1	03-Apr-2024 00:59	382LCV2.d	B CA
LLCCV5	1	03-Apr-2024 01:01	383LCV5.d	B CA
ICSA	1	03-Apr-2024 01:03	384ICSA.d	B CA
ICSAB	1	03-Apr-2024 01:05	385ICSB.d	B CA

CCB EXCEPTIONS REPORT

Client: TRC
Project: NRG Limestone-Appendix III-Resa
WorkOrder: HS24031757

Run ID:ICPMS06_462809
Instrument:ICPMS06
Method:SW6020A

CCB 1	Date: 02-Apr-2024 11:46	Seq: 7921513	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	12.38	11	20	

CCB 2	Date: 02-Apr-2024 12:10	Seq: 7921623	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	14.19	11	20	

CCB 5	Date: 02-Apr-2024 13:44	Seq: 7921903	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	18.29	11	20	

CCB 6	Date: 02-Apr-2024 14:08	Seq: 7922085	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	37.21	11	20	

CCB 7	Date: 02-Apr-2024 14:34	Seq: 7922179	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	47	11	20	

CCB 8	Date: 02-Apr-2024 15:02	Seq: 7922229	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	19.92	11	20	

CCB 9	Date: 02-Apr-2024 15:30	Seq: 7922299	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	13.45	11	20	

CCB 10	Date: 02-Apr-2024 15:59	Seq: 7922565	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	16.67	11	20	

CCB 11	Date: 02-Apr-2024 16:19	Seq: 7922573	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	18.4	11	20	

CCB 12	Date: 02-Apr-2024 16:47	Seq: 7922715	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	14.78	11	20	

CCB 16	Date: 02-Apr-2024 18:37	Seq: 7922853	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	12.22	11	20	

CCB 17	Date: 02-Apr-2024 18:58	Seq: 7922883	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	126.1	11	20	

CCB 18	Date: 02-Apr-2024 19:14	Seq: 7922901	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	98.43	11	20	

CCB 24	Date: 02-Apr-2024 21:39	Seq: 7922936	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	

CCB EXCEPTIONS REPORT

Client: TRC
Project: NRG Limestone-Appendix III-Resa
WorkOrder: HS24031757

Run ID:ICPMS06_462809
Instrument:ICPMS06
Method:SW6020A

	Boron	21.11	11	20	
CCB 26	Date: 02-Apr-2024 22:08	Seq: 7922948	D/F: 1	Units: ug/L	
	Analyte	**Result**	**MDL**	**Report Limit**	
	Boron	-14.26	11	20	
CCB 27	Date: 02-Apr-2024 22:29	Seq: 7922959	D/F: 1	Units: ug/L	
	Analyte	**Result**	**MDL**	**Report Limit**	
	Boron	-17.98	11	20	
CCB 28	Date: 02-Apr-2024 22:37	Seq: 7922963	D/F: 1	Units: ug/L	
	Analyte	**Result**	**MDL**	**Report Limit**	
	Boron	-18.39	11	20	
CCB 30	Date: 02-Apr-2024 23:23	Seq: 7923176	D/F: 1	Units: ug/L	
	Analyte	**Result**	**MDL**	**Report Limit**	
	Boron	13.43	11	20	
CCB 32	Date: 02-Apr-2024 23:46	Seq: 7923188	D/F: 1	Units: ug/L	
	Analyte	**Result**	**MDL**	**Report Limit**	
	Boron	32.27	11	20	
CCB 33	Date: 03-Apr-2024 00:05	Seq: 7923198	D/F: 1	Units: ug/L	
	Analyte	**Result**	**MDL**	**Report Limit**	
	Boron	39.52	11	20	
CCB 34	Date: 03-Apr-2024 00:25	Seq: 7923235	D/F: 1	Units: ug/L	
	Analyte	**Result**	**MDL**	**Report Limit**	
	Boron	28.67	11	20	
CCB 35	Date: 03-Apr-2024 00:43	Seq: 7923244	D/F: 1	Units: ug/L	
	Analyte	**Result**	**MDL**	**Report Limit**	
	Boron	21.4	11	20	
CCB 36	Date: 03-Apr-2024 00:57	Seq: 7923251	D/F: 1	Units: ug/L	
	Analyte	**Result**	**MDL**	**Report Limit**	
	Boron	19.77	11	20	

Client: TRC
Project: NRG Limestone-Appendix III-Resa
Work Order: HS24031757

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24031757-01	MW-02	Water		28-Mar-2024 10:25	28-Mar-2024 10:25	☐
HS24031757-02	MW-21	Water		28-Mar-2024 08:20	28-Mar-2024 10:25	☐
HS24031757-03	MW-47	Water		28-Mar-2024 09:00	28-Mar-2024 10:25	☐
HS24031757-04	MW-50	Water		28-Mar-2024 09:40	28-Mar-2024 10:25	☐
HS24031757-05	MW-17	Water		28-Mar-2024 08:25	28-Mar-2024 10:25	☐
HS24031757-06	MW-18	Water		28-Mar-2024 09:45	28-Mar-2024 10:25	☐
HS24031757-07	MW-19	Water		28-Mar-2024 09:00	28-Mar-2024 10:25	☐
HS24031757-08	DUP-01	Water		28-Mar-2024 09:15	28-Mar-2024 10:25	☐

Client: TRC
Project: NRG Limestone-Appendix III-Resa
Sample ID: MW-02
Collection Date: 28-Mar-2024 10:25

ANALYTICAL REPORT
WorkOrder:HS24031757
Lab ID:HS24031757-01
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 30-Mar-2024		Analyst: JC
Boron	**1.24**		**0.0220**	**0.0400**	**mg/L**	2	02-Apr-2024 12:26
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Sulfate	**1,010**		**4.00**	**10.0**	**mg/L**	20	30-Mar-2024 11:03

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone-Appendix III-Resa
Sample ID: MW-21
Collection Date: 28-Mar-2024 08:20

ANALYTICAL REPORT
WorkOrder:HS24031757
Lab ID:HS24031757-02
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 30-Mar-2024		Analyst: JC
Boron	**0.724**		**0.0110**	**0.0200**	**mg/L**	1	01-Apr-2024 19:23

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone-Appendix III-Resa
Sample ID: MW-47
Collection Date: 28-Mar-2024 09:00

ANALYTICAL REPORT
WorkOrder:HS24031757
Lab ID:HS24031757-03
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
SUBCONTRACT ANALYSIS - FLOURIDE	**Method:NA**						Analyst: SUBHO
Subcontract Analysis	**Se Attached**		**0**	**0**		1	04-Apr-2024 08:57

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone-Appendix III-Resa
Sample ID: MW-50
Collection Date: 28-Mar-2024 09:40

ANALYTICAL REPORT
WorkOrder:HS24031757
Lab ID:HS24031757-04
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 30-Mar-2024		Analyst: JC
Boron	**0.691**		**0.0110**	**0.0200**	**mg/L**	1	01-Apr-2024 19:25

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone-Appendix III-Resa
Sample ID: MW-17
Collection Date: 28-Mar-2024 08:25

ANALYTICAL REPORT
WorkOrder:HS24031757
Lab ID:HS24031757-05
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**84.0**		**5.00**	**10.0**	**mg/L**	1	01-Apr-2024 11:00

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone-Appendix III-Resa
Sample ID: MW-18
Collection Date: 28-Mar-2024 09:45

ANALYTICAL REPORT
WorkOrder:HS24031757
Lab ID:HS24031757-06
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**352**		**5.00**	**10.0**	**mg/L**	1	01-Apr-2024 11:00

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone-Appendix III-Resa
Sample ID: MW-19
Collection Date: 28-Mar-2024 09:00

ANALYTICAL REPORT
WorkOrder:HS24031757
Lab ID:HS24031757-07
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**264**		**5.00**	**10.0**	**mg/L**	1	01-Apr-2024 11:00

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

Privileged and Confidential

Client: TRC **ANALYTICAL REPORT**
Project: NRG Limestone-Appendix III-Resa WorkOrder:HS24031757
Sample ID: DUP-01 Lab ID:HS24031757-08
Collection Date: 28-Mar-2024 09:15 Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: HB
Total Dissolved Solids (Residue, Filterable)	**270**		**5.00**	**10.0**	**mg/L**	1	01-Apr-2024 11:00

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

Weight / Prep Log

Client: TRC
Project: NRG Limestone-Appendix III-Resa
WorkOrder: HS24031757

Batch ID: 209692 **Start Date:** 30 Mar 2024 09:00 **End Date:** 30 Mar 2024 09:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24031757-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24031757-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24031757-04		10 (mL)	10 (mL)	1	120 plastic HNO3

Client: TRC
Project: NRG Limestone-Appendix III-Resa
WorkOrder: HS24031757

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 209692 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS24031757-01	MW-02	28 Mar 2024 10:25		30 Mar 2024 09:00	02 Apr 2024 12:26	2
HS24031757-02	MW-21	28 Mar 2024 08:20		30 Mar 2024 09:00	01 Apr 2024 19:23	1
HS24031757-04	MW-50	28 Mar 2024 09:40		30 Mar 2024 09:00	02 Apr 2024 12:28	20
HS24031757-04	MW-50	28 Mar 2024 09:40		30 Mar 2024 09:00	01 Apr 2024 19:25	1
Batch ID: R462701 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS24031757-01	MW-02	28 Mar 2024 10:25			30 Mar 2024 11:03	20
Batch ID: R462881 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS24031757-05	MW-17	28 Mar 2024 08:25			01 Apr 2024 11:00	1
HS24031757-06	MW-18	28 Mar 2024 09:45			01 Apr 2024 11:00	1
HS24031757-07	MW-19	28 Mar 2024 09:00			01 Apr 2024 11:00	1
HS24031757-08	DUP-01	28 Mar 2024 09:15			01 Apr 2024 11:00	1
Batch ID: R463005 (0)	**Test Name :** SUBCONTRACT ANALYSIS - FLOURIDE				**Matrix:** Water	
HS24031757-03	MW-47	28 Mar 2024 09:00			04 Apr 2024 08:57	1

WorkOrder: HS24031757
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

WorkOrder: HS24031757
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: HS24031757
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: HS24031757
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: NRG Limestone-Appendix III-Resa
WorkOrder: HS24031757

QC BATCH REPORT

Batch ID: 209692 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MBLK Sample ID: **MBLK-209692** Units: **mg/L** Analysis Date: **01-Apr-2024 11:55**
Client ID: Run ID: **ICPMS06_462713** SeqNo: **7919172** PrepDate: **30-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								

LCS Sample ID: **LCS-209692** Units: **mg/L** Analysis Date: **01-Apr-2024 11:57**
Client ID: Run ID: **ICPMS06_462713** SeqNo: **7919173** PrepDate: **30-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4792	0.0200	0.5	0	95.8	80 - 120				

MS Sample ID: **HS24031760-01MS** Units: **mg/L** Analysis Date: **01-Apr-2024 18:14**
Client ID: Run ID: **ICPMS06_462713** SeqNo: **7920249** PrepDate: **30-Mar-2024** DF: **2**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5478	0.0400	0.5	0.04575	100	80 - 120				

MS Sample ID: **HS24031759-01MS** Units: **mg/L** Analysis Date: **01-Apr-2024 12:03**
Client ID: Run ID: **ICPMS06_462713** SeqNo: **7919176** PrepDate: **30-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.9981	0.0200	0.5	0.5047	98.7	80 - 120				

MSD Sample ID: **HS24031760-01MSD** Units: **mg/L** Analysis Date: **01-Apr-2024 18:16**
Client ID: Run ID: **ICPMS06_462713** SeqNo: **7920250** PrepDate: **30-Mar-2024** DF: **2**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5482	0.0400	0.5	0.04575	100	80 - 120	0.5478	0.0606	20	

MSD Sample ID: **HS24031759-01MSD** Units: **mg/L** Analysis Date: **01-Apr-2024 12:05**
Client ID: Run ID: **ICPMS06_462713** SeqNo: **7919177** PrepDate: **30-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.9948	0.0200	0.5	0.5047	98.0	80 - 120	0.9981	0.338	20	

Client: TRC
Project: NRG Limestone-Appendix III-Resa
WorkOrder: HS24031757

QC BATCH REPORT

Batch ID: 209692 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

PDS Sample ID: **HS24031760-01PDS** Units: **mg/L** Analysis Date: **01-Apr-2024 18:18**
Client ID: Run ID: **ICPMS06_462713** SeqNo: **7920251** PrepDate: **30-Mar-2024** DF: **2**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5734	0.0400	0.5	0.04575	106	75 - 125				

PDS Sample ID: **HS24031759-01PDS** Units: **mg/L** Analysis Date: **01-Apr-2024 12:07**
Client ID: Run ID: **ICPMS06_462713** SeqNo: **7919178** PrepDate: **30-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.8484	0.0200	0.4	0.5047	85.9	75 - 125				

SD Sample ID: **HS24031760-01SD** Units: **mg/L** Analysis Date: **01-Apr-2024 18:12**
Client ID: Run ID: **ICPMS06_462713** SeqNo: **7920248** PrepDate: **30-Mar-2024** DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Boron	< 0.110	0.200					0.04575	0	10	

SD Sample ID: **HS24031759-01SD** Units: **mg/L** Analysis Date: **01-Apr-2024 11:59**
Client ID: Run ID: **ICPMS06_462713** SeqNo: **7919174** PrepDate: **30-Mar-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Boron	0.5261	0.100					0.5047	4.23	10	

The following samples were analyzed in this batch: HS24031757-01 HS24031757-02 HS24031757-04

Client: TRC
Project: NRG Limestone-Appendix III-Resa
WorkOrder: HS24031757

QC BATCH REPORT

Batch ID: R462701 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **30-Mar-2024 13:25**
Client ID: Run ID: **ICS-Integrion_462701** SeqNo: **7918763** 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-Mar-2024 13:37**
Client ID: Run ID: **ICS-Integrion_462701** SeqNo: **7918764** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	21.43	0.500	20	0	107	90 - 110				
Sulfate	21.89	0.500	20	0	109	90 - 110				

MS Sample ID: **HS24031767-03MS** Units: **mg/L** Analysis Date: **30-Mar-2024 15:35**
Client ID: Run ID: **ICS-Integrion_462701** SeqNo: **7918776** PrepDate: DF: **20**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	283	10.0	200	78.26	102	80 - 120				
Sulfate	932.7	10.0	200	786	73.3	80 - 120				S

MS Sample ID: **HS24031757-01MS** Units: **mg/L** Analysis Date: **30-Mar-2024 11:09**
Client ID: **MW-02** Run ID: **ICS-Integrion_462701** SeqNo: **7918746** PrepDate: DF: **20**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	460.7	10.0	200	246.9	107	80 - 120				
Sulfate	1197	10.0	200	1010	93.6	80 - 120				O

MSD Sample ID: **HS24031767-03MSD** Units: **mg/L** Analysis Date: **30-Mar-2024 15:41**
Client ID: Run ID: **ICS-Integrion_462701** SeqNo: **7918777** PrepDate: DF: **20**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	292.3	10.0	200	78.26	107	80 - 120	283	3.24	20	
Sulfate	939.7	10.0	200	786	76.8	80 - 120	932.7	0.751	20	S

Client: TRC
Project: NRG Limestone-Appendix III-Resa
WorkOrder: HS24031757

QC BATCH REPORT

Batch ID: R462701 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MSD Sample ID: **HS24031757-01MSD** Units: **mg/L** Analysis Date: **30-Mar-2024 11:15**
Client ID: **MW-02** Run ID: **ICS-Integrion_462701** SeqNo: **7918747** PrepDate: DF: **20**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	460.6	10.0	200	246.9	107	80 - 120	460.7	0.0304	20	
Sulfate	1197	10.0	200	1010	93.5	80 - 120	1197	0.0291	20	O

The following samples were analyzed in this batch: HS24031757-01

Client: TRC
Project: NRG Limestone-Appendix III-Resa
WorkOrder: HS24031757

QC BATCH REPORT

Batch ID: R462881 (0) **Instrument: Balance1** **Method: TOTAL DISSOLVED SOLIDS BY SM2540C-2011**

MBLK Sample ID: **WMBLK-04012024** Units: **mg/L** Analysis Date: **01-Apr-2024 11:00**
Client ID: Run ID: **Balance1_462881** SeqNo: **7923276** 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-04012024** Units: **mg/L** Analysis Date: **01-Apr-2024 11:00**
Client ID: Run ID: **Balance1_462881** SeqNo: **7923275** 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)	960	10.0	1000	0	96.0	85 - 115				

DUP Sample ID: **HS24031766-01 DUP** Units: **mg/L** Analysis Date: **01-Apr-2024 11:00**
Client ID: Run ID: **Balance1_462881** SeqNo: **7923267** 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)	322	10.0					324	0.619	20	

DUP Sample ID: **HS24031722-02 DUP** Units: **mg/L** Analysis Date: **01-Apr-2024 11:00**
Client ID: Run ID: **Balance1_462881** SeqNo: **7923257** 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)	2424	10.0					2356	2.85	20	

The following samples were analyzed in this batch: HS24031757-05 HS24031757-06 HS24031757-07 HS24031757-08

Client: TRC
Project: NRG Limestone-Appendix III-Resa
WorkOrder: **HS24031757**

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: HS24031757 **Date/Time Received:** **28-Mar-2024 10:25**

Client Name: TRC-HOU **Received by:** **Monica Smith**

Completed By:	/S/ Belinda Gomez	29-Mar-2024 19:17	**Reviewed by:**	/S/ Andy C. Neir	02-Apr-2024 15:36
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **w** 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 ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:313725
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?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	0.4uc/0.3c	ir31	
Cooler(s)/Kit(s):	48372		
Date/Time sample(s) sent to storage:	3/29/24 1818		
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:

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: 313725

HS24031757

TRC

NRG Limestone-Appendix III-Resa

ALS Project Manager:

Customer Information		Project Information			
Purchase Order	~~20612~~ 211385	Project Name	NRG Limestone- Appendix III -Resa	A	ICP_TW(B (App III))
Work Order		Project Number		B	300_W (SO4)
Company Name	TRC Corporation	Bill To Company	TRC	C	Sub_Fluoride (Sub Fluoride to ALS Michigan)
Send Report To	Lori Burns	Invoice Attn	A/P	D	TDS_W 2540C (TDS)
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	LBurns@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-02	3-28-24	1025	Water	8.2	2	X	X									
2	MW-21		820	Water	2.8	1	X										
3	MW-47		900	Water	8	1			X								
4	MW-50		940	Water	2.8	1	X										
5	MW-17		825	Water	4.8	1				X							
6	MW-18		945	Water	4.8	1				X							
7	MW-19		900	Water	4.8	1				X							
8	DUP-01		915	water	0	1				X							
9																	
10																	

Sampler(s) Please Print & Sign	Shipment Method	Required Turnaround Time: (Check Box)	Results Due Date:
Mason Bond + Hunt Team	Drop off @ lab	☐ STD 10 W. Days ☒ 5 W. Days ☐ 2 W. Days ☐ 24 Hour ☐ Other	

Relinquished by:	Date:	Time:	Received by:
	3-28-24	1500	
Relinquished by:	Date:	Time:	Received by (Laboratory):
	3-29-24	1520	(MS)
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: NRG Limestone/PRIVILEGED & CONFIDENTIAL

Cooler ID	Cooler Temp.
48372	.4

QC Package: (Check One Box Below)
☐ Level II Std QC ☒ TRRP Checklist
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SVM46/CLP
☐ Other

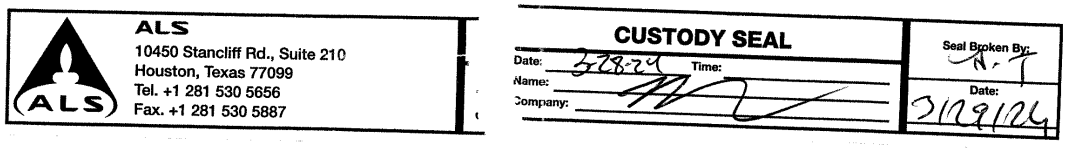
Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

IR #31

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.

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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: 5-28-24
Time:
Name:
Company:
Seal Broken By:
Date:
5/29/24

04-Apr-2024

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

Re: **HS24031757** Work Order: **24040114**

Dear Andrew,

ALS Environmental received 1 sample on 02-Apr-2024 09:00 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 11.

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

Client: ALS Environmental
Project: HS24031757
Work Order: **24040114**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
24040114-01	MW-47	Water	HS24031757-03	3/28/2024 10:25	4/2/2024 09:00	☐

WET CHEMISTRY DATA ASSESSMENT CHECKLIST

Wet Chemistry	Batch Number: TITRATOR 1_240403A	Instrument ID: TITRATOR1	
Method: FL_4500C_W	Work order Number (s): 24040114		
Analyst Name: MS	Date: 4/3/2024	Reviewer Name: RM	Date: 4/3/24

	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: HS24031757
WorkOrder: **24040114**

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:	HS24031757
Work Order:	24040114

Case Narrative

Samples for the above noted Work Order were received on 04/02/2024. 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.

Privileged and Confidential

ALS Group, USA

Date: *04-Apr-2024*

Client:	ALS Environmental		
Project:	HS24031757	**Work Order:**	24040114
Sample ID:	MW-47	**Lab ID:**	24040114-01
Collection Date:	3/28/2024 10:25 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.170**		**0.10**	**mg/L**	1	4/3/2024 10:09 AM

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

QC BATCH REPORT

Batch ID: **R399794** Instrument ID **Titrator 1** Method: **A4500-F C-11**

MBLK Sample ID: **MB-R399794-R399794** Units: **mg/L** Analysis Date: **4/3/2024 10:09 AM**
Client ID: Run ID: **TITRATOR 1_240403A** SeqNo: **10623112** 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-R399794-R399794** Units: **mg/L** Analysis Date: **4/3/2024 10:09 AM**
Client ID: Run ID: **TITRATOR 1_240403A** SeqNo: **10623113** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.02	0.10	5	0	100	90-111	0			

MS Sample ID: **24040114-01A MS** Units: **mg/L** Analysis Date: **4/3/2024 10:09 AM**
Client ID: **MW-47** Run ID: **TITRATOR 1_240403A** SeqNo: **10623115** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.24	0.10	5	0.17	101	90-111	0			

MSD Sample ID: **24040114-01A MSD** Units: **mg/L** Analysis Date: **4/3/2024 10:09 AM**
Client ID: **MW-47** Run ID: **TITRATOR 1_240403A** SeqNo: **10623116** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.37	0.10	5	0.17	104	90-111	5.24	2.45	20	

The following samples were analyzed in this batch: 24040114-01A

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

24040114

ALS - HOUSTON: ALS Environmental

Project: HS24031757

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:** **25192**

SUBCONTRACT TO:

ALS Group USA, Corp.
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:	HS24031757
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS24031757-03**	**MW-47**	**Water**	**28 Mar 2024 10:25**
	Fluoride by ISE 4500. EQuis EDD			04 Apr 2024

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

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

Relinquished By: JC Date/Time: 4/1/24 1800

Received By: Date/Time: 4-2-24 0900

Cooler ID(s): Temperature(s): 0.1 0.2

ALS Group, USA
Holland, Michigan

Sample Receipt Checklist

Client Name: **ALS - HOUSTON** Date/Time Received: **02-Apr-24 09:00**

Work Order: **24040114** Received by: **JD**

Checklist completed by Jason Delinger (eSignature) 02-Apr-24 (Date) Reviewed by: Chelsey Cook (eSignature) 02-Apr-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):	0.1/0.1 C	DF2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	4/2/2024 1:12:51 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

May 23, 2024

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

Work Order: **HS24030492**

Laboratory Results for: **NRG Limestone-Appendix IV**

Dear Lori Burris,

ALS Environmental received 4 sample(s) on Mar 08, 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:	NRG Limestone-Appendix IV	
WorkOrder:	**HS24030492**	

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:	NRG Limestone-Appendix IV	
WorkOrder:	**HS24030492**	

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: 05/23/2024					
Project Name: NRG Limestone-Appendix IV			Laboratory Job Number: HS24030492					
Reviewer Name: Andy Neir			Prep Batch Number(s): 208665,208770,R461383,R467463					
#[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: 05/23/2024				
Project Name: NRG Limestone-Appendix IV			Laboratory Job Number: HS24030492				
Reviewer Name: Andy Neir			Prep Batch Number(s): 208665,208770,R461383,R467463				
#[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: 05/23/2024
Project Name: NRG Limestone-Appendix IV		Laboratory Job Number: HS24030492
Reviewer Name: Andy Neir		Prep Batch Number(s): 208665,208770,R461383,R467463
ER#[5]	**Description**	
1	Batch 208665, Metals Method SW6020, sample MW-48, MS and or MSD failed QC limit for Thallium. Batch 208665, Metals Method SW6020, sample HSA24030489-02, MS and MSD were performed on unrelated sample	
2	The analysis for Fluoride was subcontracted to ALS Environmental in Holland, MI. Report and Laboratory Review Checklist are attached to the final report The analyses for Radium-226 and Radium 228, were subcontracted to GEL Laboratories in Charleston, SC. 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: NRG Limestone-Appendix IV
WorkOrder: HS24030492
Start Date: 13-Mar-2024 End Date: 13-Mar-2024

Run ID:HG04_461213
Instrument:HG04
Method:SW7470A

Sample No.	D/F	Time	FileID	Analytes
ICV	1	13-Mar-2024 11:43		HG
ICB	1	13-Mar-2024 11:45		HG
CRA	1	13-Mar-2024 11:47		HG
CCV 1	1	13-Mar-2024 11:49		HG
CCB 1	1	13-Mar-2024 11:51		HG
CCV 2	1	13-Mar-2024 12:21		HG
CCB 2	1	13-Mar-2024 12:22		HG
CCV 3	1	13-Mar-2024 12:43		HG
CCB 3	1	13-Mar-2024 12:45		HG
CCV 4	1	13-Mar-2024 13:08		HG
CCB 4	1	13-Mar-2024 13:09		HG
CCV 5	1	13-Mar-2024 13:33		HG
CCB 5	1	13-Mar-2024 13:34		HG
MBLK-208770	1	13-Mar-2024 13:53		HG
CCV 6	1	13-Mar-2024 13:59		HG
CCB 6	1	13-Mar-2024 14:01		HG
LCS-208770	1	13-Mar-2024 14:04		HG
CCV 7	1	13-Mar-2024 14:37		HG
CCB 7	1	13-Mar-2024 14:42		HG
MW-47	1	13-Mar-2024 14:47		HG
MW-48	1	13-Mar-2024 14:48		HG
MW-48MS	1	13-Mar-2024 14:52		HG
MW-48MSD	1	13-Mar-2024 14:53		HG
MW-49	1	13-Mar-2024 14:55		HG
MW-50	1	13-Mar-2024 14:57		HG
CCV 8	1	13-Mar-2024 15:08		HG
CCB 8	1	13-Mar-2024 15:09		HG
CCV 9	1	13-Mar-2024 15:39		HG
CCB 9	1	13-Mar-2024 15:41		HG
CCV 10	1	13-Mar-2024 16:00		HG
CCB 10	1	13-Mar-2024 16:02		HG
CCV 11	1	13-Mar-2024 16:59		HG
CCB 11	1	13-Mar-2024 17:01		HG
CCV 12	1	13-Mar-2024 17:10		HG
CCB 12	1	13-Mar-2024 17:12		HG
CCV 13	1	13-Mar-2024 17:24		HG
CCB 13	1	13-Mar-2024 17:26		HG

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: NRG Limestone-Appendix IV
WorkOrder: HS24030492
Start Date: 12-Mar-2024 End Date: 13-Mar-2024

Run ID:ICPMS06_461059
Instrument:ICPMS06
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
LLICV2	1	12-Mar-2024 11:17	021LCV2.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICB	1	12-Mar-2024 11:22	024_ICB.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICV	1	12-Mar-2024 11:25	025_ICV.d	AS BA BE CD CO CR LI MO PB SB SE TL
LLICV5	1	12-Mar-2024 11:29	027LCV5.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICSA	1	12-Mar-2024 11:33	029ICSA.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICSAB	1	12-Mar-2024 11:35	030ICSB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 1	1	12-Mar-2024 11:55	033_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 1	1	12-Mar-2024 11:56	034_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 2	1	12-Mar-2024 12:18	045_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 2	1	12-Mar-2024 12:20	046_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 3	1	12-Mar-2024 12:43	057_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 3	1	12-Mar-2024 12:44	058_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 4	1	12-Mar-2024 13:08	069_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 4	1	12-Mar-2024 13:10	070_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 5	1	12-Mar-2024 13:32	081_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 5	1	12-Mar-2024 13:34	082_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 6	1	12-Mar-2024 13:56	084_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 6	1	12-Mar-2024 13:58	085_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 7	1	12-Mar-2024 14:27	097_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 7	1	12-Mar-2024 14:33	099_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 8	1	12-Mar-2024 14:55	108_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 8	1	12-Mar-2024 14:57	109_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 9	1	12-Mar-2024 15:18	111_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 9	1	12-Mar-2024 15:20	112_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 10	1	12-Mar-2024 15:41	123_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 10	1	12-Mar-2024 15:43	124_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICCV 11	1	12-Mar-2024 16:21	140_ICV.d	AS BA BE CD CO CR LI MO PB SB SE TL
LLCCV5	1	12-Mar-2024 16:23	141LCV5.d	AS BA BE CD CO CR LI MO PB SB SE TL
LLCCV2	1	12-Mar-2024 16:25	142LCV2.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICCB 11	1	12-Mar-2024 16:27	143_ICB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 12	1	12-Mar-2024 16:36	145_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 12	1	12-Mar-2024 16:38	146_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
MBLK-208665	1	12-Mar-2024 16:41	147SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
LCS-208665	1	12-Mar-2024 16:43	148SMPL.d	AS BA BE CD CO CR LI MO PB SB SE
ZZZZZZSD	5	12-Mar-2024 16:46	150SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
ZZZZZZMS	1	12-Mar-2024 16:48	151SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
ZZZZZZMSD	1	12-Mar-2024 16:50	152SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
ZZZZZZPDS	1	12-Mar-2024 16:52	153SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 13	1	12-Mar-2024 16:59	156_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 13	1	12-Mar-2024 17:01	157_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-48	1	12-Mar-2024 17:03	158SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-48SD	5	12-Mar-2024 17:08	159SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-48MS	1	12-Mar-2024 17:10	160SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-48MSD	1	12-Mar-2024 17:12	161SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-48PDS	1	12-Mar-2024 17:14	162SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 14	1	12-Mar-2024 17:21	164_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 14	1	12-Mar-2024 17:23	165_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 15	1	12-Mar-2024 17:46	176_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 15	1	12-Mar-2024 17:47	177_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-47	1	12-Mar-2024 18:01	184SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: NRG Limestone-Appendix IV
WorkOrder: HS24030492
Start Date: 12-Mar-2024 End Date: 13-Mar-2024

Run ID:ICPMS06_461059
Instrument:ICPMS06
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
MW-49	1	12-Mar-2024 18:03	185SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-50	1	12-Mar-2024 18:05	186SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 16	1	12-Mar-2024 18:09	188_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 16	1	12-Mar-2024 18:11	189_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 17	1	12-Mar-2024 18:29	198_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 17	1	12-Mar-2024 18:36	200_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 18	1	12-Mar-2024 18:49	207_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 18	1	12-Mar-2024 18:51	208_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 19	1	12-Mar-2024 19:17	219_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 19	1	12-Mar-2024 19:19	220_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 20	1	12-Mar-2024 19:20	221_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 20	1	12-Mar-2024 19:22	222_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 21	1	12-Mar-2024 19:38	230_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 21	1	12-Mar-2024 19:39	231_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 22	1	12-Mar-2024 19:57	240_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 22	1	12-Mar-2024 19:58	241_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 23	1	12-Mar-2024 20:15	250_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 23	1	12-Mar-2024 20:17	251_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 24	1	12-Mar-2024 20:29	257_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 24	1	12-Mar-2024 20:31	258_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 25	1	12-Mar-2024 20:40	263_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 25	1	12-Mar-2024 20:42	264_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 26	1	12-Mar-2024 20:58	272_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 26	1	12-Mar-2024 21:00	273_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 27	1	12-Mar-2024 21:28	280_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 27	1	12-Mar-2024 21:30	281_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 28	1	12-Mar-2024 21:56	290_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 28	1	12-Mar-2024 21:58	291_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 29	1	12-Mar-2024 22:17	301_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 29	1	12-Mar-2024 22:19	302_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 30	1	12-Mar-2024 22:57	312_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 30	1	12-Mar-2024 22:59	313_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 31	1	12-Mar-2024 23:20	323_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 31	1	12-Mar-2024 23:30	325_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 32	1	12-Mar-2024 23:42	331_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 32	1	12-Mar-2024 23:44	332_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 33	1	12-Mar-2024 23:59	340_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 33	1	13-Mar-2024 00:01	341_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 34	1	13-Mar-2024 00:17	349_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 34	1	13-Mar-2024 00:18	350_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 35	1	13-Mar-2024 00:36	359_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 35	1	13-Mar-2024 00:38	360_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
LLCCV2	1	13-Mar-2024 00:40	361LCV2.d	AS BA BE CD CO CR LI MO PB SB SE TL
LLCCV5	1	13-Mar-2024 00:42	362LCV5.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICSA	1	13-Mar-2024 00:43	363ICSA.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICSAB	1	13-Mar-2024 00:45	364ICSB.d	AS BA BE CD CO CR LI MO PB SB SE TL

CCB EXCEPTIONS REPORT

Client: TRC
Project: NRG Limestone-Appendix IV
WorkOrder: HS24030492

Run ID:HG04_461213
Instrument:HG04
Method:SW7470A

CCB 7 Date: 13-Mar-2024 14:42 Seq: 7885561 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Mercury	-0.032	0.03	0.2

CCB EXCEPTIONS REPORT

Client: TRC
Project: NRG Limestone-Appendix IV
WorkOrder: HS24030492

Run ID:ICPMS06_461059
Instrument:ICPMS06
Method:SW6020A

CCB 1	Date: 12-Mar-2024 11:56	Seq: 7881955	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Antimony	0.674	0.4	2	

CCB 2	Date: 12-Mar-2024 12:20	Seq: 7881966	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Antimony	0.682	0.4	2	

CCB 3	Date: 12-Mar-2024 12:44	Seq: 7882098	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Antimony	0.636	0.4	2	

CCB 8	Date: 12-Mar-2024 14:57	Seq: 7882704	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Antimony	0.694	0.4	2	
Chromium	-0.665	0.4	4	

CCB 9	Date: 12-Mar-2024 15:20	Seq: 7882707	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Antimony	0.715	0.4	2	
Chromium	-0.599	0.4	4	

CCB 10	Date: 12-Mar-2024 15:43	Seq: 7882719	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Antimony	0.632	0.4	2	
Chromium	-0.576	0.4	4	

CCB 12	Date: 12-Mar-2024 16:38	Seq: 7883013	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Thallium	0.442	0.2	2	

CCB 15	Date: 12-Mar-2024 17:47	Seq: 7883080	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Thallium	0.449	0.2	2	

CCB 16	Date: 12-Mar-2024 18:11	Seq: 7883292	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Thallium	0.304	0.2	2	

CCB 17	Date: 12-Mar-2024 18:29	Seq: 7883331	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Thallium	0.315	0.2	2	

CCB 18	Date: 12-Mar-2024 18:51	Seq: 7883341	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Thallium	0.298	0.2	2	

CCB 19	Date: 12-Mar-2024 19:19	Seq: 7883353	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Antimony	0.426	0.4	2	
Thallium	0.302	0.2	2	

CCB 20	Date: 12-Mar-2024 19:22	Seq: 7883356	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	

CCB EXCEPTIONS REPORT

Client: TRC
Project: NRG Limestone-Appendix IV
WorkOrder: HS24030492

Run ID:ICPMS06_461059
Instrument:ICPMS06
Method:SW6020A

	Thallium	0.321	0.2	2	

CCB 21	Date: 12-Mar-2024 19:39	Seq: 7883365	D/F: 1	Units: ug/L
Analyte		**Result**	**MDL**	**Report Limit**
Thallium		0.307	0.2	2

CCB 22	Date: 12-Mar-2024 19:58	Seq: 7883375	D/F: 1	Units: ug/L
Analyte		**Result**	**MDL**	**Report Limit**
Thallium		0.338	0.2	2

CCB 23	Date: 12-Mar-2024 20:17	Seq: 7883385	D/F: 1	Units: ug/L
Analyte		**Result**	**MDL**	**Report Limit**
Antimony		0.474	0.4	2
Thallium		0.374	0.2	2

CCB 24	Date: 12-Mar-2024 20:31	Seq: 7883392	D/F: 1	Units: ug/L
Analyte		**Result**	**MDL**	**Report Limit**
Thallium		0.383	0.2	2

CCB 25	Date: 12-Mar-2024 20:42	Seq: 7883398	D/F: 1	Units: ug/L
Analyte		**Result**	**MDL**	**Report Limit**
Thallium		0.436	0.2	2

CCB 26	Date: 12-Mar-2024 21:00	Seq: 7883407	D/F: 1	Units: ug/L
Analyte		**Result**	**MDL**	**Report Limit**
Thallium		0.382	0.2	2

CCB 27	Date: 12-Mar-2024 21:30	Seq: 7883415	D/F: 1	Units: ug/L
Analyte		**Result**	**MDL**	**Report Limit**
Thallium		0.336	0.2	2

CCB 28	Date: 12-Mar-2024 21:58	Seq: 7883424	D/F: 1	Units: ug/L
Analyte		**Result**	**MDL**	**Report Limit**
Thallium		0.273	0.2	2

CCB 29	Date: 12-Mar-2024 22:19	Seq: 7883434	D/F: 1	Units: ug/L
Analyte		**Result**	**MDL**	**Report Limit**
Thallium		0.273	0.2	2

CCB 30	Date: 12-Mar-2024 22:59	Seq: 7883688	D/F: 1	Units: ug/L
Analyte		**Result**	**MDL**	**Report Limit**
Antimony		0.435	0.4	2
Thallium		0.301	0.2	2

CCB 31	Date: 12-Mar-2024 23:20	Seq: 7883698	D/F: 1	Units: ug/L
Analyte		**Result**	**MDL**	**Report Limit**
Thallium		0.237	0.2	2

CCB 32	Date: 12-Mar-2024 23:44	Seq: 7883703	D/F: 1	Units: ug/L
Analyte		**Result**	**MDL**	**Report Limit**
Thallium		0.296	0.2	2

CCB 33	Date: 13-Mar-2024 00:01	Seq: 7883712	D/F: 1	Units: ug/L
Analyte		**Result**	**MDL**	**Report Limit**
Thallium		0.313	0.2	2

CCB EXCEPTIONS REPORT

Client: TRC
Project: NRG Limestone-Appendix IV
WorkOrder: HS24030492

Run ID:ICPMS06_461059
Instrument:ICPMS06
Method:SW6020A

CCB 34	Date: 13-Mar-2024 00:18	Seq: 7883721	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Thallium	0.337	0.2	2	

CCB 35	Date: 13-Mar-2024 00:38	Seq: 7883731	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Thallium	0.359	0.2	2	

Client: TRC
Project: NRG Limestone-Appendix IV
Work Order: HS24030492

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24030492-01	MW-47	Water		07-Mar-2024 08:50	08-Mar-2024 10:36	☐
HS24030492-02	MW-48	Water		07-Mar-2024 09:30	08-Mar-2024 10:36	☐
HS24030492-03	MW-49	Water		07-Mar-2024 09:45	08-Mar-2024 10:36	☐
HS24030492-04	MW-50	Water		07-Mar-2024 11:00	08-Mar-2024 10:36	☐

Client: TRC
Project: NRG Limestone-Appendix IV
Sample ID: MW-47
Collection Date: 07-Mar-2024 08:50

ANALYTICAL REPORT
WorkOrder:HS24030492
Lab ID:HS24030492-01
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 12-Mar-2024		Analyst: JC
Antimony	< 0.000400		0.000400	0.00200	mg/L	1	12-Mar-2024 18:01
Arsenic	**0.00427**		**0.000400**	**0.00200**	**mg/L**	1	12-Mar-2024 18:01
Barium	**0.124**		**0.00190**	**0.00400**	**mg/L**	1	12-Mar-2024 18:01
Beryllium	< 0.000200		0.000200	0.00200	mg/L	1	12-Mar-2024 18:01
Cadmium	< 0.000200		0.000200	0.00200	mg/L	1	12-Mar-2024 18:01
Chromium	< 0.000400		0.000400	0.00400	mg/L	1	12-Mar-2024 18:01
Cobalt	**0.00182**	J	**0.000200**	**0.00500**	**mg/L**	1	12-Mar-2024 18:01
Lead	< 0.000600		0.000600	0.00200	mg/L	1	12-Mar-2024 18:01
Lithium	**0.0159**		**0.00100**	**0.00500**	**mg/L**	1	12-Mar-2024 18:01
Molybdenum	**0.00139**	J	**0.000600**	**0.00500**	**mg/L**	1	12-Mar-2024 18:01
Selenium	< 0.00110		0.00110	0.00200	mg/L	1	12-Mar-2024 18:01
Thallium	< 0.000200		0.000200	0.00200	mg/L	1	12-Mar-2024 18:01
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Mar-2024		Analyst: JS
Mercury	< 0.0000300		0.0000300	0.000200	mg/L	1	13-Mar-2024 14:47
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	15-Mar-2024 10:38
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	23-May-2024 10:24
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	23-May-2024 10:24

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

Client: TRC
Project: NRG Limestone-Appendix IV
Sample ID: MW-48
Collection Date: 07-Mar-2024 09:30

ANALYTICAL REPORT
WorkOrder:HS24030492
Lab ID:HS24030492-02
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 12-Mar-2024		Analyst: JC
Antimony	**0.000742**	J	**0.000400**	**0.00200**	**mg/L**	1	12-Mar-2024 17:03
Arsenic	**0.00183**	J	**0.000400**	**0.00200**	**mg/L**	1	12-Mar-2024 17:03
Barium	**0.112**		**0.00190**	**0.00400**	**mg/L**	1	12-Mar-2024 17:03
Beryllium	< 0.000200		0.000200	0.00200	mg/L	1	12-Mar-2024 17:03
Cadmium	< 0.000200		0.000200	0.00200	mg/L	1	12-Mar-2024 17:03
Chromium	**0.00234**	J	**0.000400**	**0.00400**	**mg/L**	1	12-Mar-2024 17:03
Cobalt	**0.000540**	J	**0.000200**	**0.00500**	**mg/L**	1	12-Mar-2024 17:03
Lead	< 0.000600		0.000600	0.00200	mg/L	1	12-Mar-2024 17:03
Lithium	**0.0145**		**0.00100**	**0.00500**	**mg/L**	1	12-Mar-2024 17:03
Molybdenum	**0.000691**	J	**0.000600**	**0.00500**	**mg/L**	1	12-Mar-2024 17:03
Selenium	< 0.00110		0.00110	0.00200	mg/L	1	12-Mar-2024 17:03
Thallium	< 0.000200		0.000200	0.00200	mg/L	1	12-Mar-2024 17:03
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Mar-2024		Analyst: JS
Mercury	**0.0000670**	J	**0.0000300**	**0.000200**	**mg/L**	1	13-Mar-2024 14:48
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	15-Mar-2024 10:38
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	23-May-2024 10:24
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	23-May-2024 10:24

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

Client: TRC
Project: NRG Limestone-Appendix IV
Sample ID: MW-49
Collection Date: 07-Mar-2024 09:45

ANALYTICAL REPORT
WorkOrder:HS24030492
Lab ID:HS24030492-03
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 12-Mar-2024		Analyst: JC
Antimony	< 0.000400		0.000400	0.00200	mg/L	1	12-Mar-2024 18:03
Arsenic	**0.0176**		**0.000400**	**0.00200**	**mg/L**	1	12-Mar-2024 18:03
Barium	**1.33**		**0.00190**	**0.00400**	**mg/L**	1	12-Mar-2024 18:03
Beryllium	< 0.000200		0.000200	0.00200	mg/L	1	12-Mar-2024 18:03
Cadmium	< 0.000200		0.000200	0.00200	mg/L	1	12-Mar-2024 18:03
Chromium	**0.000830**	J	**0.000400**	**0.00400**	**mg/L**	1	12-Mar-2024 18:03
Cobalt	**0.0381**		**0.000200**	**0.00500**	**mg/L**	1	12-Mar-2024 18:03
Lead	< 0.000600		0.000600	0.00200	mg/L	1	12-Mar-2024 18:03
Lithium	**0.00240**	J	**0.00100**	**0.00500**	**mg/L**	1	12-Mar-2024 18:03
Molybdenum	**0.000674**	J	**0.000600**	**0.00500**	**mg/L**	1	12-Mar-2024 18:03
Selenium	< 0.00110		0.00110	0.00200	mg/L	1	12-Mar-2024 18:03
Thallium	< 0.000200		0.000200	0.00200	mg/L	1	12-Mar-2024 18:03
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Mar-2024		Analyst: JS
Mercury	< 0.0000300		0.0000300	0.000200	mg/L	1	13-Mar-2024 14:55
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	15-Mar-2024 10:38
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	23-May-2024 10:24
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	23-May-2024 10:24

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone-Appendix IV
Sample ID: MW-50
Collection Date: 07-Mar-2024 11:00

ANALYTICAL REPORT
WorkOrder:HS24030492
Lab ID:HS24030492-04
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 12-Mar-2024		Analyst: JC
Antimony	< 0.000400		0.000400	0.00200	mg/L	1	12-Mar-2024 18:05
Arsenic	**0.000476**	J	**0.000400**	**0.00200**	**mg/L**	1	12-Mar-2024 18:05
Barium	**0.0195**		**0.00190**	**0.00400**	**mg/L**	1	12-Mar-2024 18:05
Beryllium	< 0.000200		0.000200	0.00200	mg/L	1	12-Mar-2024 18:05
Cadmium	**0.000310**	J	**0.000200**	**0.00200**	**mg/L**	1	12-Mar-2024 18:05
Chromium	< 0.000400		0.000400	0.00400	mg/L	1	12-Mar-2024 18:05
Cobalt	**0.00619**		**0.000200**	**0.00500**	**mg/L**	1	12-Mar-2024 18:05
Lead	< 0.000600		0.000600	0.00200	mg/L	1	12-Mar-2024 18:05
Lithium	**0.0202**		**0.00100**	**0.00500**	**mg/L**	1	12-Mar-2024 18:05
Molybdenum	< 0.000600		0.000600	0.00500	mg/L	1	12-Mar-2024 18:05
Selenium	< 0.00110		0.00110	0.00200	mg/L	1	12-Mar-2024 18:05
Thallium	< 0.000200		0.000200	0.00200	mg/L	1	12-Mar-2024 18:05
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 13-Mar-2024		Analyst: JS
Mercury	< 0.0000300		0.0000300	0.000200	mg/L	1	13-Mar-2024 14:57
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	15-Mar-2024 10:38
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	23-May-2024 10:24
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	23-May-2024 10:24

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

Privileged and Confidential

Weight / Prep Log

Client: TRC
Project: NRG Limestone-Appendix IV
WorkOrder: HS24030492

Batch ID: 208665 **Start Date:** 12 Mar 2024 08:30 **End Date:** 12 Mar 2024 08:30
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24030492-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030492-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030492-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030492-04		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 208770 **Start Date:** 13 Mar 2024 08:30 **End Date:** 13 Mar 2024 08:30
Method: MERCURY PREP BY 7470A- WATER **Prep Code:** HG_WPR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24030492-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030492-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030492-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24030492-04		10 (mL)	10 (mL)	1	120 plastic HNO3

Client: TRC
Project: NRG Limestone-Appendix IV
WorkOrder: HS24030492

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 208665 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS24030492-01	MW-47	07 Mar 2024 08:50		12 Mar 2024 08:30	12 Mar 2024 18:01	1
HS24030492-02	MW-48	07 Mar 2024 09:30		12 Mar 2024 08:30	12 Mar 2024 17:03	1
HS24030492-03	MW-49	07 Mar 2024 09:45		12 Mar 2024 08:30	12 Mar 2024 18:03	1
HS24030492-04	MW-50	07 Mar 2024 11:00		12 Mar 2024 08:30	12 Mar 2024 18:05	1
Batch ID: 208770 (0)	**Test Name :** MERCURY BY SW7470A				**Matrix:** Water	
HS24030492-01	MW-47	07 Mar 2024 08:50		13 Mar 2024 08:30	13 Mar 2024 14:47	1
HS24030492-02	MW-48	07 Mar 2024 09:30		13 Mar 2024 08:30	13 Mar 2024 14:48	1
HS24030492-03	MW-49	07 Mar 2024 09:45		13 Mar 2024 08:30	13 Mar 2024 14:55	1
HS24030492-04	MW-50	07 Mar 2024 11:00		13 Mar 2024 08:30	13 Mar 2024 14:57	1
Batch ID: R461383 (0)	**Test Name :** SUBCONTRACT ANALYSIS - FLOURIDE				**Matrix:** Water	
HS24030492-01	MW-47	07 Mar 2024 08:50			15 Mar 2024 10:38	1
HS24030492-02	MW-48	07 Mar 2024 09:30			15 Mar 2024 10:38	1
HS24030492-03	MW-49	07 Mar 2024 09:45			15 Mar 2024 10:38	1
HS24030492-04	MW-50	07 Mar 2024 11:00			15 Mar 2024 10:38	1
Batch ID: R467463 (0)	**Test Name :** SUBCONTRACT ANALYSIS - RADIUM 228				**Matrix:** Water	
HS24030492-01	MW-47	07 Mar 2024 08:50			23 May 2024 10:24	1
HS24030492-01	MW-47	07 Mar 2024 08:50			23 May 2024 10:24	1
HS24030492-02	MW-48	07 Mar 2024 09:30			23 May 2024 10:24	1
HS24030492-02	MW-48	07 Mar 2024 09:30			23 May 2024 10:24	1
HS24030492-03	MW-49	07 Mar 2024 09:45			23 May 2024 10:24	1
HS24030492-03	MW-49	07 Mar 2024 09:45			23 May 2024 10:24	1
HS24030492-04	MW-50	07 Mar 2024 11:00			23 May 2024 10:24	1
HS24030492-04	MW-50	07 Mar 2024 11:00			23 May 2024 10:24	1

WorkOrder: HS24030492
InstrumentID: HG04
Test Code: HG_W
Test Number: SW7470A
Test Name: Mercury by SW7470A

METHOD DETECTION / REPORTING LIMITS

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

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Mercury	7439-97-6	0.000100	0.0000870	0.0000300	0.000200

WorkOrder: HS24030492
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	Antimony	7440-36-0	0.00125	0.000683	0.000400	0.00200
A	Arsenic	7440-38-2	0.00125	0.00107	0.000400	0.00200
A	Barium	7440-39-3	0.00250	0.00109	0.00190	0.00400
A	Beryllium	7440-41-7	0.000500	0.000446	0.000200	0.00200
A	Cadmium	7440-43-9	0.000500	0.000885	0.000200	0.00200
A	Chromium	7440-47-3	0.00125	0.00343	0.000400	0.00400
A	Cobalt	7440-48-4	0.000500	0.000509	0.000200	0.00500
A	Lead	7439-92-1	0.00125	0.000931	0.000600	0.00200
A	Lithium	7439-93-2	0.00250	0.000662	0.00100	0.00500
A	Molybdenum	7439-98-7	0.00125	0.000536	0.000600	0.00500
A	Selenium	7782-49-2	0.00250	0.000988	0.00110	0.00200
A	Thallium	7440-28-0	0.000500	0.000473	0.000200	0.00200

WorkOrder: HS24030492
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: HS24030492
InstrumentID: Subcontract
Test Code: SUB_RA 226
Test Number: NA
Test Name: Subcontract Analysis - Radium

METHOD DETECTION / REPORTING LIMITS

Matrix: NA **Units:** NA

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

WorkOrder: HS24030492
InstrumentID: Subcontract
Test Code: SUB_RA 228
Test Number: NA
Test Name: Subcontract Analysis - Radium 228

METHOD DETECTION / REPORTING LIMITS

Matrix: NA **Units:** NA

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

Client: TRC
Project: NRG Limestone-Appendix IV
WorkOrder: HS24030492

QC BATCH REPORT

Batch ID: 208665 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MBLK Sample ID: **MBLK-208665** Units: **mg/L** Analysis Date: **12-Mar-2024 16:41**
Client ID: Run ID: **ICPMS06_461059** SeqNo: **7883014** PrepDate: **12-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	< 0.000400	0.00200								
Arsenic	< 0.000400	0.00200								
Barium	< 0.00190	0.00400								
Beryllium	< 0.000200	0.00200								
Cadmium	< 0.000200	0.00200								
Chromium	< 0.000400	0.00400								
Cobalt	< 0.000200	0.00500								
Lead	< 0.000600	0.00200								
Lithium	< 0.00100	0.00500								
Molybdenum	< 0.000600	0.00500								
Selenium	< 0.00110	0.00200								
Thallium	< 0.000200	0.00200								

LCS Sample ID: **LCS-208665** Units: **mg/L** Analysis Date: **12-Mar-2024 16:43**
Client ID: Run ID: **ICPMS06_461059** SeqNo: **7883015** PrepDate: **12-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.04808	0.00200	0.05	0	96.2	80 - 120				
Arsenic	0.04808	0.00200	0.05	0	96.2	80 - 120				
Barium	0.04868	0.00400	0.05	0	97.4	80 - 120				
Beryllium	0.0467	0.00200	0.05	0	93.4	80 - 120				
Cadmium	0.04952	0.00200	0.05	0	99.0	80 - 120				
Chromium	0.04682	0.00400	0.05	0	93.6	80 - 120				
Cobalt	0.04794	0.00500	0.05	0	95.9	80 - 120				
Lead	0.0472	0.00200	0.05	0	94.4	80 - 120				
Lithium	0.09435	0.00500	0.1	0	94.4	80 - 120				
Molybdenum	0.04572	0.00500	0.05	0	91.4	80 - 120				
Selenium	0.04801	0.00200	0.05	0	96.0	80 - 120				

LCS Sample ID: **LCS-208665** Units: **mg/L** Analysis Date: **13-Mar-2024 11:36**
Client ID: Run ID: **ICPMS06_461170** SeqNo: **7884625** PrepDate: **12-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Thallium	0.04705	0.00200	0.05	0	94.1	80 - 120				

Client: TRC
Project: NRG Limestone-Appendix IV
WorkOrder: HS24030492

QC BATCH REPORT

Batch ID: 208665 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MS Sample ID: **HS24030492-02MS** Units: **mg/L** Analysis Date: **12-Mar-2024 17:10**
Client ID: **MW-48** Run ID: **ICPMS06_461059** SeqNo: **7883027** PrepDate: **12-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.049	0.00200	0.05	0.000742	96.5	80 - 120				
Arsenic	0.05051	0.00200	0.05	0.001834	97.3	80 - 120				
Barium	0.1706	0.00400	0.05	0.1119	117	80 - 120				
Beryllium	0.04903	0.00200	0.05	0.000053	98.0	80 - 120				
Cadmium	0.0485	0.00200	0.05	0.000147	96.7	80 - 120				
Chromium	0.04582	0.00400	0.05	0.002338	87.0	80 - 120				
Cobalt	0.04735	0.00500	0.05	0.00054	93.6	80 - 120				
Lead	0.04876	0.00200	0.05	0.000131	97.3	80 - 120				
Lithium	0.1193	0.00500	0.1	0.01451	105	80 - 120				
Molybdenum	0.04831	0.00500	0.05	0.000691	95.2	80 - 120				
Selenium	0.04898	0.00200	0.05	0.00108	95.8	80 - 120				
Thallium	0.03956	0.00200	0.05	0.000096	78.9	80 - 120				S

MS Sample ID: **HS24030489-02MS** Units: **mg/L** Analysis Date: **12-Mar-2024 16:48**
Client ID: Run ID: **ICPMS06_461059** SeqNo: **7883018** PrepDate: **12-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.0503	0.00200	0.05	0.000202	100	80 - 120				
Arsenic	0.04985	0.00200	0.05	0.000299	99.1	80 - 120				
Barium	0.08931	0.00400	0.05	0.0452	88.2	80 - 120				
Beryllium	0.0474	0.00200	0.05	0.000044	94.7	80 - 120				
Cadmium	0.04635	0.00200	0.05	0.000166	92.4	80 - 120				
Chromium	0.04709	0.00400	0.05	0.001612	90.9	80 - 120				
Cobalt	0.04889	0.00500	0.05	0.001967	93.8	80 - 120				
Lead	0.0454	0.00200	0.05	0.000057	90.7	80 - 120				
Lithium	0.1685	0.00500	0.1	0.06983	98.7	80 - 120				
Molybdenum	0.0442	0.00500	0.05	0.000184	88.0	80 - 120				
Selenium	0.0492	0.00200	0.05	0.000191	98.0	80 - 120				
Thallium	0.03567	0.00200	0.05	0.000321	70.7	80 - 120				S

Client: TRC
Project: NRG Limestone-Appendix IV
WorkOrder: HS24030492

QC BATCH REPORT

Batch ID: 208665 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MS Sample ID: **HS24030489-02MS** Units: **mg/L** Analysis Date: **13-Mar-2024 12:03**
Client ID: Run ID: **ICPMS06_461170** SeqNo: **7884785** PrepDate: **12-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Thallium	0.04611	0.00200	0.05	0.000321	91.6	80 - 120				

MSD Sample ID: **HS24030492-02MSD** Units: **mg/L** Analysis Date: **12-Mar-2024 17:12**
Client ID: **MW-48** Run ID: **ICPMS06_461059** SeqNo: **7883028** PrepDate: **12-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.04955	0.00200	0.05	0.000742	97.6	80 - 120	0.049	1.11	20	
Arsenic	0.05062	0.00200	0.05	0.001834	97.6	80 - 120	0.05051	0.229	20	
Barium	0.1731	0.00400	0.05	0.1119	122	80 - 120	0.1706	1.47	20	S
Beryllium	0.04923	0.00200	0.05	0.000053	98.4	80 - 120	0.04903	0.401	20	
Cadmium	0.04954	0.00200	0.05	0.000147	98.8	80 - 120	0.0485	2.13	20	
Chromium	0.04615	0.00400	0.05	0.002338	87.6	80 - 120	0.04582	0.72	20	
Cobalt	0.04732	0.00500	0.05	0.00054	93.6	80 - 120	0.04735	0.0549	20	
Lead	0.04928	0.00200	0.05	0.000131	98.3	80 - 120	0.04876	1.06	20	
Lithium	0.1188	0.00500	0.1	0.01451	104	80 - 120	0.1193	0.416	20	
Molybdenum	0.0498	0.00500	0.05	0.000691	98.2	80 - 120	0.04831	3.04	20	
Selenium	0.05012	0.00200	0.05	0.00108	98.1	80 - 120	0.04898	2.3	20	
Thallium	0.04019	0.00200	0.05	0.000096	80.2	80 - 120	0.03956	1.58	20	

Client: TRC
Project: NRG Limestone-Appendix IV
WorkOrder: HS24030492

QC BATCH REPORT

Batch ID: 208665 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MSD Sample ID: **HS24030489-02MSD** Units: **mg/L** Analysis Date: **12-Mar-2024 16:50**
Client ID: Run ID: **ICPMS06_461059** SeqNo: **7883019** PrepDate: **12-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.04896	0.00200	0.05	0.000202	97.5	80 - 120	0.0503	2.71	20	
Arsenic	0.04789	0.00200	0.05	0.000299	95.2	80 - 120	0.04985	4	20	
Barium	0.09527	0.00400	0.05	0.0452	100	80 - 120	0.08931	6.45	20	
Beryllium	0.05002	0.00200	0.05	0.000044	100.0	80 - 120	0.0474	5.38	20	
Cadmium	0.04861	0.00200	0.05	0.000166	96.9	80 - 120	0.04635	4.76	20	
Chromium	0.04536	0.00400	0.05	0.001612	87.5	80 - 120	0.04709	3.73	20	
Cobalt	0.04767	0.00500	0.05	0.001967	91.4	80 - 120	0.04889	2.52	20	
Lead	0.04644	0.00200	0.05	0.000057	92.8	80 - 120	0.0454	2.26	20	
Lithium	0.1785	0.00500	0.1	0.06983	109	80 - 120	0.1685	5.77	20	
Molybdenum	0.0474	0.00500	0.05	0.000184	94.4	80 - 120	0.0442	6.99	20	
Selenium	0.04753	0.00200	0.05	0.000191	94.7	80 - 120	0.0492	3.46	20	
Thallium	0.03694	0.00200	0.05	0.000321	73.2	80 - 120	0.03567	3.5	20	S

MSD Sample ID: **HS24030489-02MSD** Units: **mg/L** Analysis Date: **13-Mar-2024 12:05**
Client ID: Run ID: **ICPMS06_461170** SeqNo: **7884786** PrepDate: **12-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Thallium	0.04584	0.00200	0.05	0.000321	91.0	80 - 120	0.04611	0.574	20	

Client: TRC
Project: NRG Limestone-Appendix IV
WorkOrder: HS24030492

QC BATCH REPORT

Batch ID: 208665 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

PDS Sample ID: **HS24030492-02PDS** Units: **mg/L** Analysis Date: **12-Mar-2024 17:14**
Client ID: **MW-48** Run ID: **ICPMS06_461059** SeqNo: **7883029** PrepDate: **12-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.09612	0.00200	0.1	0.000742	95.4	75 - 125				
Arsenic	0.09726	0.00200	0.1	0.001834	95.4	75 - 125				
Barium	0.2121	0.00400	0.1	0.1119	100	75 - 125				
Beryllium	0.09377	0.00200	0.1	0.000053	93.7	75 - 125				
Cadmium	0.09507	0.00200	0.1	0.000147	94.9	75 - 125				
Chromium	0.08967	0.00400	0.1	0.002338	87.3	75 - 125				
Cobalt	0.09442	0.00500	0.1	0.00054	93.9	75 - 125				
Lead	0.09403	0.00200	0.1	0.000131	93.9	75 - 125				
Lithium	0.1132	0.00500	0.1	0.01451	98.7	70 - 125				
Molybdenum	0.09255	0.00500	0.1	0.000691	91.9	75 - 125				
Selenium	0.09494	0.00200	0.1	0.00108	93.9	75 - 125				
Thallium	0.08681	0.00200	0.1	0.000096	86.7	75 - 125				

PDS Sample ID: **HS24030489-02PDS** Units: **mg/L** Analysis Date: **12-Mar-2024 16:52**
Client ID: Run ID: **ICPMS06_461059** SeqNo: **7883020** PrepDate: **12-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.1004	0.00200	0.1	0.000202	100	75 - 125				
Arsenic	0.0964	0.00200	0.1	0.000299	96.1	75 - 125				
Barium	0.1433	0.00400	0.1	0.0452	98.1	75 - 125				
Beryllium	0.09441	0.00200	0.1	0.000044	94.4	75 - 125				
Cadmium	0.09678	0.00200	0.1	0.000166	96.6	75 - 125				
Chromium	0.09076	0.00400	0.1	0.001612	89.2	75 - 125				
Cobalt	0.09799	0.00500	0.1	0.001967	96.0	75 - 125				
Lead	0.09561	0.00200	0.1	0.000057	95.6	75 - 125				
Lithium	0.167	0.00500	0.1	0.06983	97.1	70 - 125				
Molybdenum	0.09207	0.00500	0.1	0.000184	91.9	75 - 125				
Selenium	0.09614	0.00200	0.1	0.000191	96.0	75 - 125				
Thallium	0.09042	0.00200	0.1	0.000321	90.1	75 - 125				

Client: TRC
Project: NRG Limestone-Appendix IV
WorkOrder: HS24030492

QC BATCH REPORT

Batch ID: 208665 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

SD Sample ID: **HS24030492-02SD** Units: **mg/L** Analysis Date: **12-Mar-2024 17:08**
Client ID: **MW-48** Run ID: **ICPMS06_461059** SeqNo: **7883026** PrepDate: **12-Mar-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Antimony	< 0.00200	0.0100					0.000742	0	10	
Arsenic	< 0.00200	0.0100					0.001834	0	10	
Barium	0.1108	0.0200					0.1119	1.02	10	
Beryllium	< 0.00100	0.0100					0.000053	0	10	
Cadmium	< 0.00100	0.0100					0.000147	0	10	
Chromium	< 0.00200	0.0200					0.002338	0	10	
Cobalt	< 0.00100	0.0250					0.00054	0	10	
Lead	< 0.00300	0.0100					0.000131	0	10	
Lithium	0.01434	0.0250					0.01451	0	10	J
Molybdenum	< 0.00300	0.0250					0.000691	0	10	
Selenium	< 0.00550	0.0100					0.00108	0	10	
Thallium	< 0.00100	0.0100					0.000096	0	10	

SD Sample ID: **HS24030489-02SD** Units: **mg/L** Analysis Date: **12-Mar-2024 16:46**
Client ID: Run ID: **ICPMS06_461059** SeqNo: **7883017** PrepDate: **12-Mar-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Antimony	< 0.00200	0.0100					0.000202	0	10	
Arsenic	< 0.00200	0.0100					0.000299	0	10	
Barium	0.04378	0.0200					0.0452	3.14	10	
Beryllium	< 0.00100	0.0100					0.000044	0	10	
Cadmium	< 0.00100	0.0100					0.000166	0	10	
Chromium	0.004798	0.0200					0.001612	0	10	J
Cobalt	0.001886	0.0250					0.001967	0	10	J
Lead	< 0.00300	0.0100					0.000057	0	10	
Lithium	0.06754	0.0250					0.06983	3.28	10	
Molybdenum	< 0.00300	0.0250					0.000184	0	10	
Selenium	< 0.00550	0.0100					0.000191	0	10	
Thallium	< 0.00100	0.0100					0.000321	0	10	

The following samples were analyzed in this batch: HS24030492-01 HS24030492-02 HS24030492-03 HS24030492-04

Client: TRC
Project: NRG Limestone-Appendix IV
WorkOrder: HS24030492

QC BATCH REPORT

Batch ID: 208770 (0) **Instrument: HG04** **Method: MERCURY BY SW7470A**

MBLK Sample ID: **MBLK-208770** Units: **mg/L** Analysis Date: **13-Mar-2024 13:53**
Client ID: Run ID: **HG04_461213** SeqNo: **7885572** PrepDate: **13-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	< 0.0000300	0.000200								

LCS Sample ID: **LCS-208770** Units: **mg/L** Analysis Date: **13-Mar-2024 14:04**
Client ID: Run ID: **HG04_461213** SeqNo: **7885550** PrepDate: **13-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00469	0.000200	0.005	0	93.8	80 - 120				

MS Sample ID: **HS24030492-02MS** Units: **mg/L** Analysis Date: **13-Mar-2024 14:52**
Client ID: **MW-48** Run ID: **HG04_461213** SeqNo: **7885565** PrepDate: **13-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00504	0.000200	0.005	0.000067	99.5	75 - 125				

MSD Sample ID: **HS24030492-02MSD** Units: **mg/L** Analysis Date: **13-Mar-2024 14:53**
Client ID: **MW-48** Run ID: **HG04_461213** SeqNo: **7885566** PrepDate: **13-Mar-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00498	0.000200	0.005	0.000067	98.3	75 - 125	0.00504	1.2	20	

The following samples were analyzed in this batch: HS24030492-01 HS24030492-02 HS24030492-03 HS24030492-04

Client: TRC
Project: NRG Limestone-Appendix IV
WorkOrder: **HS24030492**

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; 2025	30-Apr-2025
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Kentucky	123043	30-Apr-2025
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624 - 2024	31-Dec-2024
Oklahoma	2023-140	31-Aug-2024
Tennessee	04016	30-Apr-2025
Texas	T104704231 TX-C24-00130	30-Apr-2025
Utah	TX026932023-14	31-Jul-2024

Sample Receipt Checklist

Work Order ID: HS24030492 **Date/Time Received:** **08-Mar-2024 10:36**

Client Name: TRC-HOU **Received by:** **Jacob Coronado**

Completed By:	/S/ Andy C. Neir	13-Mar-2024 16:23	**Reviewed by:**	/S/ Andy C. Neir	13-Mar-2024 16:29
	eSignature	Date/Time		eSignature	Date/Time

Matrices: 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 ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:312143
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?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.1uc/3.0c	IR31	
Cooler(s)/Kit(s):	51934		
Date/Time sample(s) sent to storage:	3/11/2024 14:20		
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:

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: 312143

HS24030492

TRC

NRG Limestone-Appendix IV

ALS Project Manager:

Customer Information		Project Information			
Purchase Order	211385	Project Name	NRG Limestone- Appendix IV	A	ICP_TW (Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl)
Work Order		Project Number		B	HG_W (Mercury)
Company Name	TRC Corporation	Bill To Company	TRC	C	SUB_RA 226 (Sub RA 226 to GEL)
Send Report To	Lori Burris	Invoice Attn	A/P	D	SUB_RA 228 (Sub RA 228 to GEL)
Address	14701 St. Mary's Lane Suite 500	Address	14701 St. Mary's Lane Suite 500	E	Sub_Fluoride (Report from Appendix III COC)
				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-47	3-7-24	850	Water	2,8	4	X	X	X	X	X						
2	MW-48		930	Water	2,8	4	X	X	X	X	X						
3	MW-49		945	Water	2,8	4	X	X	X	X	X						
4	MW-50		1110	Water	2,8	4	X	X	X	X	X						
5	MW-48 MS		930	Water	2,8	4	X	X	X	X	X						
6	MW-48 MSD		930	Water	2,8	4	X	X	X	X	X						
7																	
8																	
9																	
10																	

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

Shipment Method: Consult. Drop off

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

Results Due Date:

Relinquished by: IMAS Sedigh	Date: 3-8-24	Time: 1036	Received by:	Notes: NRG Limestone PRIVILEGED & CONFIDENTIAL	
Relinquished by:	Date: 3/8	Time: 1036	Received by (Laboratory): 5C	Cooler ID: 5C 4 Laptops	Cooler Temp.
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	3 coolers	

QC Package: (Check One Box Below)

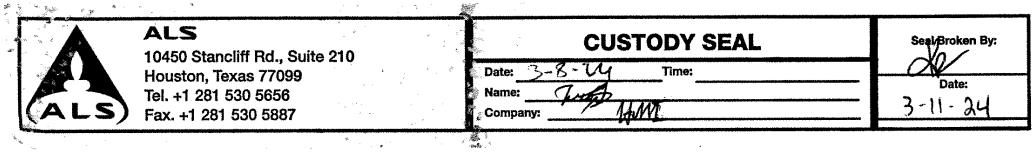
☐ Level II Std QC ☐ Level III Std QC/Raw Data ☐ Level IV SW846/CLP ☐ Other ☒ TRRP Checklist ☐ TRRP Level IV

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.

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Privileged and Confidential



Cooler 51934

15-Mar-2024

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

Re: **HS24030492** Work Order: **24030780**

Dear Andrew,

ALS Environmental received 4 samples on 12-Mar-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 14.

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

Client: ALS Environmental
Project: HS24030492
Work Order: **24030780**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
24030780-01	MW-47	Water	HS24030492-01	3/7/2024 08:50	3/12/2024 09:30	☐
24030780-02	MW-48	Water	HS24030492-02	3/7/2024 09:30	3/12/2024 09:30	☐
24030780-03	MW-49	Water	HS24030492-03	3/7/2024 09:45	3/12/2024 09:30	☐
24030780-04	MW-50	Water	HS24030492-04	3/7/2024 11:00	3/12/2024 09:30	☐

WET CHEMISTRY DATA ASSESSMENT CHECKLIST

Wet Chemistry	Batch Number: TITRATOR 1_240312A	Instrument ID: TITRATOR1
Method: FL_4500C_W	Work order Number (s): 24030780	
Analyst Name: MS	Date: 3/12/2024 Reviewer Name: RM	Date: 3/12/24

	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: HS24030492
WorkOrder: **24030780**

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:	HS24030492
Work Order:	24030780

Case Narrative

Samples for the above noted Work Order were received on 03/12/2024. 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.

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Client:	ALS Environmental		
Project:	HS24030492	**Work Order:**	24030780
Sample ID:	MW-47	**Lab ID:**	24030780-01
Collection Date:	3/7/2024 08:50 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	3/12/2024 03:38 PM

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

Client:	ALS Environmental		
Project:	HS24030492	**Work Order:**	24030780
Sample ID:	MW-48	**Lab ID:**	24030780-02
Collection Date:	3/7/2024 09:30 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.160**		**0.10**	**mg/L**	1	3/12/2024 03:38 PM

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

Client:	ALS Environmental		
Project:	HS24030492	**Work Order:**	24030780
Sample ID:	MW-49	**Lab ID:**	24030780-03
Collection Date:	3/7/2024 09:45 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	3/12/2024 03:38 PM

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

Client:	ALS Environmental		
Project:	HS24030492	**Work Order:**	24030780
Sample ID:	MW-50	**Lab ID:**	24030780-04
Collection Date:	3/7/2024 11:00 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	3/12/2024 03:38 PM

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

Batch ID: **R398225** Instrument ID **Titrator 1** Method: **A4500-F C-11**

MBLK	Sample ID: **MB-R398225-R398225**				Units: **mg/L**			Analysis Date: **3/12/2024 03:38 PM**		
Client ID:	Run ID: **TITRATOR 1_240312A**			SeqNo: **10555562**		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-R398225-R398225**				Units: **mg/L**			Analysis Date: **3/12/2024 03:38 PM**		
Client ID:	Run ID: **TITRATOR 1_240312A**			SeqNo: **10555563**		Prep Date:		DF: **1**		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	4.95	0.10	5	0	99	90-111	0			

MS	Sample ID: **24030779-02A MS**				Units: **mg/L**			Analysis Date: **3/12/2024 03:38 PM**		
Client ID:	Run ID: **TITRATOR 1_240312A**			SeqNo: **10555566**		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	0.04	101	90-111	0			

MS	Sample ID: **24030779-12A MS**				Units: **mg/L**			Analysis Date: **3/12/2024 03:38 PM**		
Client ID:	Run ID: **TITRATOR 1_240312A**			SeqNo: **10555578**		Prep Date:		DF: **1**		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.12	0.10	5	0.17	99	90-111	0			

MSD	Sample ID: **24030779-02A MSD**				Units: **mg/L**			Analysis Date: **3/12/2024 03:38 PM**		
Client ID:	Run ID: **TITRATOR 1_240312A**			SeqNo: **10555567**		Prep Date:		DF: **1**		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.12	0.10	5	0.04	102	90-111	5.09	0.588	20	

MSD	Sample ID: **24030779-12A MSD**				Units: **mg/L**			Analysis Date: **3/12/2024 03:38 PM**		
Client ID:	Run ID: **TITRATOR 1_240312A**			SeqNo: **10555579**		Prep Date:		DF: **1**		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.21	0.10	5	0.17	101	90-111	5.12	1.74	20	

The following samples were analyzed in this batch:

24030780-01A	24030780-02A	24030780-03A
24030780-04A		

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

24030780

ALS - HOUSTON. ALS Environmental
Project: HS24030492

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:** **24996**

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:	HS24030492
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS24030492-01**	**MW-47**	**Water**	**07 Mar 2024 08:50**
	Fluoride by ISE 4500. EQuis EDD			15 Mar 2024
2.	**HS24030492-02**	**MW-48**	**Water**	**07 Mar 2024 09:30**
	Fluoride by ISE 4500. EQuis EDD			15 Mar 2024
3.	**HS24030492-03**	**MW-49**	**Water**	**07 Mar 2024 09:45**
	Fluoride by ISE 4500. EQuis EDD			15 Mar 2024
4.	**HS24030492-04**	**MW-50**	**Water**	**07 Mar 2024 11:00**
	Fluoride by ISE 4500. EQuis EDD			15 Mar 2024

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.
HS24030492-02 = ms/msd

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

Relinquished By: AM Date/Time: 3/11/24 18:00

Received By: Date/Time: 3-12-24 0951

Cooler ID(s): Temperature(s): 4.7C

ALS Group, USA
Holland, Michigan

Sample Receipt Checklist

Client Name: **ALS - HOUSTON** Date/Time Received: **12-Mar-24 09:30**

Work Order: **24030780** Received by: **JD**

Checklist completed by Jason Delinger (eSignature) 12-Mar-24 (Date) Reviewed by: Chelsey Cook (eSignature) 13-Mar-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):	4.7/4.7 C	DF2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	3/12/2024 10:41:10 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:

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SRC Page 1 of 1

GEL Laboratories LLC
a member of The GEL Group INC

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

April 04, 2024

Jessica Monfore
ALS Houston
10450 Stancliff Rd
Ste 210
Houston, Texas 77099

Re: Houston - Neir L2
Work Order: 658735

Dear Jessica Monfore:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on March 13, 2024. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4422.

Sincerely,

J H Crook

Jacob Crook
Project Manager

Purchase Order: GELP21-0705
Chain of Custody: 25012
Enclosures

problem solved

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

Certificate of Analysis

Report Date: April 4, 2024

Company :	ALS Houston
Address :	10450 Stancliff Rd Ste 210 Houston, Texas 77099
Contact:	Jessica Monfore
Project:	Houston - Neir L2

Client Sample ID:	HS24030492-01	Project:	ALSE01323
Sample ID:	658735001	Client ID:	ALSE001
Matrix:	Water		
Collect Date:	07-MAR-24 08:50		
Receive Date:	13-MAR-24		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting												
GFPC Ra228, Liquid "As Received"												
Radium-228		4.84	1.54	3.00	pCi/L			JE1	03/28/24	0943	2584997	1
Radium-226+Radium-228 Calculation "See Parent Products"												
Radium-226+228 Sum		5.78			pCi/L			NXL1	04/03/24	0852	2585529	2
Rad Radium-226												
Lucas Cell, Ra226, Liquid "As Received"												
Radium-226		0.944	0.555	1.00	pCi/L			MJ2	04/02/24	1021	2582737	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"			83.4	(15%-125%)

Notes:

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: April 4, 2024

Company :	ALS Houston
Address :	10450 Stancliff Rd Ste 210 Houston, Texas 77099
Contact:	Jessica Monfore
Project:	Houston - Neir L2

Client Sample ID:	HS24030492-02	Project:	ALSE01323
Sample ID:	658735002	Client ID:	ALSE001
Matrix:	Water		
Collect Date:	07-MAR-24 09:30		
Receive Date:	13-MAR-24		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting												
GFPC Ra228, Liquid "As Received"												
Radium-228		2.17	1.40	3.00	pCi/L			JE1	03/28/24	0943	2584997	1
Radium-226+Radium-228 Calculation "See Parent Products"												
Radium-226+228 Sum		3.15			pCi/L			NXL1	04/03/24	0852	2585529	2
Rad Radium-226												
Lucas Cell, Ra226, Liquid "As Received"												
Radium-226		0.989	0.506	1.00	pCi/L			MJ2	04/02/24	1021	2582737	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"			83.9	(15%-125%)

Notes:

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: April 4, 2024

Company :	ALS Houston
Address :	10450 Stancliff Rd Ste 210 Houston, Texas 77099
Contact:	Jessica Monfore
Project:	Houston - Neir L2

Client Sample ID:	HS24030492-03	Project:	ALSE01323
Sample ID:	658735003	Client ID:	ALSE001
Matrix:	Water		
Collect Date:	07-MAR-24 09:45		
Receive Date:	13-MAR-24		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting												
GFPC Ra228, Liquid "As Received"												
Radium-228	U	0.875	1.06	3.00	pCi/L			JE1	03/28/24	0943	2584997	1
Radium-226+Radium-228 Calculation "See Parent Products"												
Radium-226+228 Sum		2.10			pCi/L			NXL1	04/03/24	0852	2585529	2
Rad Radium-226												
Lucas Cell, Ra226, Liquid "As Received"												
Radium-226		1.23	0.435	1.00	pCi/L			MJ2	04/02/24	1021	2582737	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"			86.7	(15%-125%)

Notes:

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: April 4, 2024

Company :	ALS Houston
Address :	10450 Stancliff Rd Ste 210 Houston, Texas 77099
Contact:	Jessica Monfore
Project:	Houston - Neir L2

Client Sample ID:	HS24030492-04	Project:	ALSE01323
Sample ID:	658735004	Client ID:	ALSE001
Matrix:	Water		
Collect Date:	07-MAR-24 11:00		
Receive Date:	13-MAR-24		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting												
GFPC Ra228, Liquid "As Received"												
Radium-228	U	0.436	1.37	3.00	pCi/L			JE1	03/28/24	0943	2584997	1
Radium-226+Radium-228 Calculation "See Parent Products"												
Radium-226+228 Sum		1.38			pCi/L			NXL1	04/03/24	0852	2585529	2
Rad Radium-226												
Lucas Cell, Ra226, Liquid "As Received"												
Radium-226		0.943	0.785	1.00	pCi/L			MJ2	04/02/24	1039	2582737	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"			78.1	(15%-125%)

Notes:

Column headers are defined as follows:

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

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

QC Summary

Client : **ALS Houston**
10450 Stancliff Rd
Ste 210
Houston, Texas

Contact: **Andy Neir**

Workorder: **658735**

Report Date: December 2, 2024

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 2584997										
QC1205681593 658212001 DUP										
Radium-228		3.49		2.88	pCi/L	19.3		(0% - 100%)	JE1	03/28/2409:43
	Uncert:	+/-1.22		+/-1.18						
	TPU:	+/-1.51		+/-1.39						
QC1205681594 LCS										
Radium-228	73.1			67.9	pCi/L		92.8	(75%-125%)	JE1	03/28/2409:43
	Uncert:			+/-4.27						
	TPU:			+/-17.9						
QC1205681592 MB										
Radium-228			U	0.825	pCi/L				JE1	03/28/2409:42
	Uncert:			+/-1.10						
	TPU:			+/-1.12						
Rad Ra-226										
Batch 2582737										
QC1205677315 LCS										
Radium-226	26.9			21.5	pCi/L		80	(75%-125%)	MJ2	04/02/2410:57
	Uncert:			+/-2.39						
	TPU:			+/-5.73						
QC1205677310 MB										
Radium-226			U	0.230	pCi/L				MJ2	04/02/2410:57
	Uncert:			+/-0.319						
	TPU:			+/-0.323						

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

U	Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
J	Value is estimated
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
H	Analytical holding time was exceeded
<	Result is less than value reported
>	Result is greater than value reported
UI	Gamma Spectroscopy--Uncertain identification
BD	Results are either below the MDC or tracer recovery is low
h	Preparation or preservation holding time was exceeded
R	Sample results are rejected
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit

QC Summary

Workorder: **658735**

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

M	M if above MDC and less than LLD
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
FA	Failed analysis.
UJ	Gamma Spectroscopy--Uncertain identification
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
K	Analyte present. Reported value may be biased high. Actual value is expected to be lower.
UL	Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
L	Analyte present. Reported value may be biased low. Actual value is expected to be higher.
N1	See case narrative
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.
**	Analyte is a Tracer compound
M	REMP Result > MDC/CL and < RDL
J	See case narrative for an explanation

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

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

Receipt Narrative
for
ALS Environmental
SDG: 658735

April 04, 2024

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample receipt: The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on March 13, 2024 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Sample Identification: The laboratory received the following samples:

Laboratory ID	Client ID
658735001	HS24030492-01
658735002	HS24030492-02
658735003	HS24030492-03
658735004	HS24030492-04

Case Narrative:

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

J W Crook

Jacob Crook
Project Manager

658735

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:** **25012**

SUBCONTRACT TO:

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29407

Phone: +1 843 556 8171

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:	HS24030492
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS24030492-01**	**MW-47**	**Water**	**07 Mar 2024 08:50**
	Report Combined RA 226/228 Value &the 2 Individual			15 Mar 2024
	Report Combined RA 226/228 Value &the 2 Individual			15 Mar 2024
2.	**HS24030492-02**	**MW-48**	**Water**	**07 Mar 2024 09:30**
	Report Combined RA 226/228 Value &the 2 Individual			15 Mar 2024
	Report Combined RA 226/228 Value &the 2 Individual			15 Mar 2024
3.	**HS24030492-03**	**MW-49**	**Water**	**07 Mar 2024 09:45**
	Report Combined RA 226/228 Value &the 2 Individual			15 Mar 2024
	Report Combined RA 226/228 Value &the 2 Individual			15 Mar 2024
4.	**HS24030492-04**	**MW-50**	**Water**	**07 Mar 2024 11:00**
	Report Combined RA 226/228 Value &the 2 Individual			15 Mar 2024
	Report Combined RA 226/228 Value &the 2 Individual			15 Mar 2024

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

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

Subcontract Chain of Custody

SAMPLING STATE: **Texas**

COC ID: **25012**

Relinquished By: _____ Date/Time: 3/12/24 1800

Received By: _____ Date/Time: 3/13/24 940

Cooler ID(s): _____ Temperature(s): _____

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: ALSE	**SDG/AR/COC/Work Order:** 658735
Received By: QG	**Date Received:** 3/18/24
Carrier and Tracking Number	Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other 6842 4803 0807

Suspected Hazard Information	Yes	No	
			*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A)Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___
B) Did the client designate the samples are to be received as radioactive?		✓	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		✓	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): ____ CPM / mR/Hr **Classified as: Rad 1 Rad 2 Rad 3**
D) Did the client designate samples are hazardous?		✓	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		✓	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	✓			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*		✓		Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius **TEMP:** 21 c
4	Daily check performed and passed on IR temperature gun?	✓			**Temperature Device Serial #:** IR1-23 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	✓			Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?		✓		If Yes, are Encores or Soil Kits present for solids? Yes___ No___ NA___(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No) Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample ID's and containers affected:
8	Samples received within holding time?	✓			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	✓			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?		✓		Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?		✓		
13	COC form is properly signed in relinquished/received sections?	✓			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

client sent:
2 containers for c1 2 containers for c4
4 containers for c2
2 containers for c3

PM (or PMA) review: Initials AM Date 3/18/24 Page 1 of 1

List of current GEL Certifications as of 04 April 2024

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122024-05
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2023-152
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235
Utah NELAP	SC000122024-39
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Appendix B
Quarterly Background Data (June 2024)

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

June 13, 2024

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

Work Order: **HS24060122**

Laboratory Results for: **NRG Limestone- Appendix III**

Dear Lori Burris,

ALS Environmental received 6 sample(s) on Jun 04, 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:	NRG Limestone- Appendix III	
WorkOrder:	**HS24060122**	

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:	NRG Limestone- Appendix III	
WorkOrder:	**HS24060122**	

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: 06/13/2024					
Project Name: NRG Limestone- Appendix III			Laboratory Job Number: ccc					
Reviewer Name: Andy Neir			Prep Batch Number(s): 213127,R468689,R468893,R469306					
#[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: 06/13/2024				
Project Name: NRG Limestone- Appendix III			Laboratory Job Number: ccc				
Reviewer Name: Andy Neir			Prep Batch Number(s): 213127,R468689,R468893,R469306				
#[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: 06/13/2024
Project Name: NRG Limestone- Appendix III	Laboratory Job Number: ccc
Reviewer Name: Andy Neir	Prep Batch Number(s): 213127,R468689,R468893,R469306

ER#[5]	Description
1	Batch 213127, Metals Method SW6020, sample HS24060131-02, MS and MSD were performed on unrelated sample Batch 213127, Metals Method SW6020, sample MW-48, 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 R468893, Anions Method E300, sample HS24051900-01, MS and MSD were performed on unrelated sample Batch R468893, Anions Method E300, sample MW-48, MS and MSD recovered outside the control limit for Sulfate due to suspect matrix effect.
2	See Run Log and CCB Exceptions Report.
3	The analysis for Fluoride was subcontracted to ALS Environmental in Holland, Report and Laboratory Review Checklist are attached to the final report
4	Batch 213127, Metals Method SW6020, sample HS24060131-02, PDS was performed on unrelated sample Batch 213127, Metals Method SW6020, sample MW-48, PDS recovered outside the control limit for Calcium, however, the result in the parent sample is 4x greater than the spike amount Batch 213127, Metals Method SW6020, sample MW-48, The percent difference between the results of the sample and the serial dilution were greater than 10% for Calcium

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: NRG Limestone- Appendix III
WorkOrder: HS24060122
Start Date: 08-Jun-2024 End Date: 08-Jun-2024

Run ID:ICS-Integrion_468893
Instrument:ICS-Integrion
Method:E300

Sample No.	D/F	Time	FileID	Analytes
CCB 1	1	08-Jun-2024 09:42	LIMS Export_10_06_2024 08_24.txt	CL SO4
CCV 1	1	08-Jun-2024 11:04	LIMS Export_10_06_2024 08_24.txt	CL SO4
CCB 2	1	08-Jun-2024 11:10	LIMS Export_10_06_2024 08_24.txt	CL SO4
MBLK	1	08-Jun-2024 11:22	LIMS Export_10_06_2024 08_24.txt	CL SO4
LCS	1	08-Jun-2024 11:34	LIMS Export_10_06_2024 08_24.txt	CL SO4
MW-47	1	08-Jun-2024 11:40	LIMS Export_10_06_2024 08_24.txt	SO4
MW-47	10	08-Jun-2024 11:46	LIMS Export_10_06_2024 08_24.txt	CL
MW-48	20	08-Jun-2024 11:51	LIMS Export_10_06_2024 08_24.txt	CL SO4
MW-48MS	20	08-Jun-2024 11:57	LIMS Export_10_06_2024 08_24.txt	CL SO4
MW-48MSD	20	08-Jun-2024 12:03	LIMS Export_10_06_2024 08_24.txt	CL SO4
MW-49	10	08-Jun-2024 12:09	LIMS Export_10_06_2024 08_24.txt	CL SO4
MW-50	2	08-Jun-2024 12:15	LIMS Export_10_06_2024 08_24.txt	CL
MW-50	20	08-Jun-2024 12:21	LIMS Export_10_06_2024 08_24.txt	SO4
CCB 3	1	08-Jun-2024 12:44	LIMS Export_10_06_2024 08_24.txt	CL SO4
FB-01	1	08-Jun-2024 12:56	LIMS Export_10_06_2024 08_24.txt	CL SO4
DUP-01	1	08-Jun-2024 13:02	LIMS Export_10_06_2024 08_24.txt	SO4
DUP-01	5	08-Jun-2024 13:08	LIMS Export_10_06_2024 08_24.txt	CL
ZZZZZZMS	1	08-Jun-2024 13:19	LIMS Export_10_06_2024 08_24.txt	CL SO4
ZZZZZZMSD	1	08-Jun-2024 13:25	LIMS Export_10_06_2024 08_24.txt	CL SO4
CCV 2	1	08-Jun-2024 14:00	LIMS Export_10_06_2024 08_24.txt	CL SO4
CCB 4	1	08-Jun-2024 14:12	LIMS Export_10_06_2024 08_24.txt	CL SO4
CCB 5	1	08-Jun-2024 15:35	LIMS Export_10_06_2024 08_24.txt	CL SO4

CCB EXCEPTIONS REPORT

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24060122

Run ID:ICS-Integrion_468893
Instrument:ICS-Integrion
Method:E300

CCB 1	Date: 08-Jun-2024 09:42	Seq: 8055975	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Chloride	407	200	500	

CCB 3	Date: 08-Jun-2024 12:44	Seq: 8055994	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Chloride	400	200	500	

CCB 4	Date: 08-Jun-2024 14:12	Seq: 8056005	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Chloride	398	200	500	

CCB 5	Date: 08-Jun-2024 15:35	Seq: 8056015	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Chloride	411	200	500	

Client: TRC
Project: NRG Limestone- Appendix III
Work Order: HS24060122

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24060122-01	MW-47	Water		03-Jun-2024 10:20	04-Jun-2024 10:30	☐
HS24060122-02	MW-48	Water		03-Jun-2024 08:45	04-Jun-2024 10:30	☐
HS24060122-03	MW-49	Water		03-Jun-2024 08:40	04-Jun-2024 10:30	☐
HS24060122-04	MW-50	Water		03-Jun-2024 09:35	04-Jun-2024 10:30	☐
HS24060122-05	FB-01	Water		03-Jun-2024 10:40	04-Jun-2024 10:30	☐
HS24060122-06	DUP-01	Water		03-Jun-2024 09:30	04-Jun-2024 10:30	☐

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-47
Collection Date: 03-Jun-2024 10:20

ANALYTICAL REPORT
WorkOrder:HS24060122
Lab ID:HS24060122-01
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 06-Jun-2024		Analyst: JC
Boron	**0.0221**		**0.0110**	**0.0200**	**mg/L**	1	10-Jun-2024 20:55
Calcium	**42.6**		**0.0340**	**0.500**	**mg/L**	1	10-Jun-2024 20:55
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**123**		**2.00**	**5.00**	**mg/L**	10	08-Jun-2024 11:46
Sulfate	**38.9**		**0.200**	**0.500**	**mg/L**	1	08-Jun-2024 11:40
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**700**		**5.00**	**10.0**	**mg/L**	1	05-Jun-2024 14:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	13-Jun-2024 13:05

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-48
Collection Date: 03-Jun-2024 08:45

ANALYTICAL REPORT
WorkOrder:HS24060122
Lab ID:HS24060122-02
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 06-Jun-2024		Analyst: JC
Boron	**0.0217**		**0.0110**	**0.0200**	**mg/L**	1	10-Jun-2024 17:06
Calcium	**114**		**0.0340**	**0.500**	**mg/L**	1	10-Jun-2024 17:06
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**320**		**4.00**	**10.0**	**mg/L**	20	08-Jun-2024 11:51
Sulfate	**711**		**4.00**	**10.0**	**mg/L**	20	08-Jun-2024 11:51
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**1,670**		**5.00**	**10.0**	**mg/L**	1	05-Jun-2024 14:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	13-Jun-2024 13:05

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-49
Collection Date: 03-Jun-2024 08:40

ANALYTICAL REPORT
WorkOrder:HS24060122
Lab ID:HS24060122-03
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 06-Jun-2024		Analyst: JC
Boron	**0.0499**		**0.0110**	**0.0200**	**mg/L**	1	10-Jun-2024 20:57
Calcium	**126**		**0.0340**	**0.500**	**mg/L**	1	10-Jun-2024 20:57
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**300**		**2.00**	**5.00**	**mg/L**	10	08-Jun-2024 12:09
Sulfate	**31.9**		**2.00**	**5.00**	**mg/L**	10	08-Jun-2024 12:09
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**992**		**5.00**	**10.0**	**mg/L**	1	05-Jun-2024 14:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	13-Jun-2024 13:05

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-50
Collection Date: 03-Jun-2024 09:35

ANALYTICAL REPORT
WorkOrder:HS24060122
Lab ID:HS24060122-04
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 06-Jun-2024		Analyst: JC
Boron	**0.855**		**0.0110**	**0.0200**	**mg/L**	1	10-Jun-2024 20:59
Calcium	**342**		**0.680**	**10.0**	**mg/L**	20	11-Jun-2024 11:38
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**91.5**		**0.400**	**1.00**	**mg/L**	2	08-Jun-2024 12:15
Sulfate	**1,300**		**4.00**	**10.0**	**mg/L**	20	08-Jun-2024 12:21
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**1,700**		**5.00**	**10.0**	**mg/L**	1	05-Jun-2024 14:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	13-Jun-2024 13:05

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: FB-01
Collection Date: 03-Jun-2024 10:40

ANALYTICAL REPORT
WorkOrder:HS24060122
Lab ID:HS24060122-05
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 06-Jun-2024		Analyst: JC
Boron	< 0.0110		0.0110	0.0200	mg/L	1	10-Jun-2024 21:01
Calcium	**0.273**	J	**0.0340**	**0.500**	**mg/L**	1	10-Jun-2024 21:01
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**0.435**	J	**0.200**	**0.500**	**mg/L**	1	08-Jun-2024 12:56
Sulfate	**0.406**	J	**0.200**	**0.500**	**mg/L**	1	08-Jun-2024 12:56
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	< 5.00		5.00	10.0	mg/L	1	05-Jun-2024 14:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	13-Jun-2024 13:05

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: DUP-01
Collection Date: 03-Jun-2024 09:30

ANALYTICAL REPORT
WorkOrder:HS24060122
Lab ID:HS24060122-06
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 06-Jun-2024		Analyst: JC
Boron	**0.0221**		**0.0110**	**0.0200**	**mg/L**	1	10-Jun-2024 21:03
Calcium	**43.1**		**0.0340**	**0.500**	**mg/L**	1	10-Jun-2024 21:03
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**120**		**1.00**	**2.50**	**mg/L**	5	08-Jun-2024 13:08
Sulfate	**39.3**		**0.200**	**0.500**	**mg/L**	1	08-Jun-2024 13:02
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**782**		**5.00**	**10.0**	**mg/L**	1	05-Jun-2024 14:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	13-Jun-2024 13:05

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

Privileged and Confidential

Weight / Prep Log

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24060122

Batch ID: 213127 **Start Date:** 06 Jun 2024 10:00 **End Date:** 06 Jun 2024 10:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24060122-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24060122-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24060122-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24060122-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24060122-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24060122-06		10 (mL)	10 (mL)	1	120 plastic HNO3

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24060122

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 213127 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS24060122-01	MW-47	03 Jun 2024 10:20		06 Jun 2024 10:00	10 Jun 2024 20:55	1
HS24060122-02	MW-48	03 Jun 2024 08:45		06 Jun 2024 10:00	10 Jun 2024 17:06	1
HS24060122-03	MW-49	03 Jun 2024 08:40		06 Jun 2024 10:00	10 Jun 2024 20:57	1
HS24060122-04	MW-50	03 Jun 2024 09:35		06 Jun 2024 10:00	11 Jun 2024 11:38	20
HS24060122-04	MW-50	03 Jun 2024 09:35		06 Jun 2024 10:00	10 Jun 2024 20:59	1
HS24060122-05	FB-01	03 Jun 2024 10:40		06 Jun 2024 10:00	10 Jun 2024 21:01	1
HS24060122-06	DUP-01	03 Jun 2024 09:30		06 Jun 2024 10:00	10 Jun 2024 21:03	1
Batch ID: R468689 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS24060122-01	MW-47	03 Jun 2024 10:20			05 Jun 2024 14:30	1
HS24060122-02	MW-48	03 Jun 2024 08:45			05 Jun 2024 14:30	1
HS24060122-03	MW-49	03 Jun 2024 08:40			05 Jun 2024 14:30	1
HS24060122-04	MW-50	03 Jun 2024 09:35			05 Jun 2024 14:30	1
HS24060122-05	FB-01	03 Jun 2024 10:40			05 Jun 2024 14:30	1
HS24060122-06	DUP-01	03 Jun 2024 09:30			05 Jun 2024 14:30	1
Batch ID: R468893 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS24060122-01	MW-47	03 Jun 2024 10:20			08 Jun 2024 11:46	10
HS24060122-01	MW-47	03 Jun 2024 10:20			08 Jun 2024 11:40	1
HS24060122-02	MW-48	03 Jun 2024 08:45			08 Jun 2024 11:51	20
HS24060122-03	MW-49	03 Jun 2024 08:40			08 Jun 2024 12:09	10
HS24060122-04	MW-50	03 Jun 2024 09:35			08 Jun 2024 12:21	20
HS24060122-04	MW-50	03 Jun 2024 09:35			08 Jun 2024 12:15	2
HS24060122-05	FB-01	03 Jun 2024 10:40			08 Jun 2024 12:56	1
HS24060122-06	DUP-01	03 Jun 2024 09:30			08 Jun 2024 13:08	5
HS24060122-06	DUP-01	03 Jun 2024 09:30			08 Jun 2024 13:02	1
Batch ID: R469306 (0)	**Test Name :** SUBCONTRACT ANALYSIS - FLOURIDE				**Matrix:** Water	
HS24060122-01	MW-47	03 Jun 2024 10:20			13 Jun 2024 13:05	1
HS24060122-02	MW-48	03 Jun 2024 08:45			13 Jun 2024 13:05	1
HS24060122-03	MW-49	03 Jun 2024 08:40			13 Jun 2024 13:05	1
HS24060122-04	MW-50	03 Jun 2024 09:35			13 Jun 2024 13:05	1
HS24060122-05	FB-01	03 Jun 2024 10:40			13 Jun 2024 13:05	1
HS24060122-06	DUP-01	03 Jun 2024 09:30			13 Jun 2024 13:05	1

WorkOrder: HS24060122
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	0.0677	0.0340	0.500

WorkOrder: HS24060122
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: HS24060122
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: HS24060122
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	0	0	5.00	10.0

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24060122

QC BATCH REPORT

Batch ID: 213127 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MBLK Sample ID: **MBLK-213127** Units: **mg/L** Analysis Date: **10-Jun-2024 16:59**
Client ID: Run ID: **ICPMS06_468980** SeqNo: **8061150** PrepDate: **06-Jun-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-213127** Units: **mg/L** Analysis Date: **10-Jun-2024 17:01**
Client ID: Run ID: **ICPMS06_468980** SeqNo: **8061151** PrepDate: **06-Jun-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4539	0.0200	0.5	0	90.8	80 - 120				
Calcium	5.556	0.500	5	0	111	80 - 120				

MS Sample ID: **HS24060131-02MS** Units: **mg/L** Analysis Date: **10-Jun-2024 17:26**
Client ID: Run ID: **ICPMS06_468980** SeqNo: **8061162** PrepDate: **06-Jun-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4282	0.0200	0.5	0.02204	81.2	80 - 120				
Calcium	133.5	0.500	5	109	489	80 - 120				SO

MS Sample ID: **HS24060122-02MS** Units: **mg/L** Analysis Date: **10-Jun-2024 17:08**
Client ID: **MW-48** Run ID: **ICPMS06_468980** SeqNo: **8061154** PrepDate: **06-Jun-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4287	0.0200	0.5	0.02173	81.4	80 - 120				
Calcium	133.8	0.500	5	114	396	80 - 120				SO

MSD Sample ID: **HS24060131-02MSD** Units: **mg/L** Analysis Date: **10-Jun-2024 17:27**
Client ID: Run ID: **ICPMS06_468980** SeqNo: **8061163** PrepDate: **06-Jun-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4428	0.0200	0.5	0.02204	84.2	80 - 120	0.4282	3.36	20	
Calcium	129.6	0.500	5	109	413	80 - 120	133.5	2.89	20	SO

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24060122

QC BATCH REPORT

Batch ID: 213127 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MSD Sample ID: **HS24060122-02MSD** Units: **mg/L** Analysis Date: **10-Jun-2024 17:10**
Client ID: **MW-48** Run ID: **ICPMS06_468980** SeqNo: **8061155** PrepDate: **06-Jun-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4262	0.0200	0.5	0.02173	80.9	80 - 120	0.4287	0.579	20	
Calcium	129.3	0.500	5	114	306	80 - 120	133.8	3.42	20	SO

PDS Sample ID: **HS24060122-02PDS** Units: **mg/L** Analysis Date: **10-Jun-2024 17:12**
Client ID: **MW-48** Run ID: **ICPMS06_468980** SeqNo: **8061156** PrepDate: **06-Jun-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4049	0.0200	0.5	0.02173	76.6	75 - 125				
Calcium	135.6	0.500	10	114	216	75 - 125				SO

PDS Sample ID: **HS24060131-02PDS** Units: **mg/L** Analysis Date: **10-Jun-2024 17:29**
Client ID: Run ID: **ICPMS06_468980** SeqNo: **8061164** PrepDate: **06-Jun-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	131.7	0.500	10	109	227	75 - 125				SO

SD Sample ID: **HS24060131-02SD** Units: **mg/L** Analysis Date: **10-Jun-2024 17:21**
Client ID: Run ID: **ICPMS06_468980** SeqNo: **8061160** PrepDate: **06-Jun-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Boron	0.05903	0.100					0.02204	0	10	J
Calcium	116.9	2.50					109	7.27	10	

SD Sample ID: **HS24060122-02SD** Units: **mg/L** Analysis Date: **10-Jun-2024 17:02**
Client ID: **MW-48** Run ID: **ICPMS06_468980** SeqNo: **8061152** PrepDate: **06-Jun-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Boron	0.06845	0.100					0.02173	0	10	J
Calcium	127.8	2.50					114	12.1	10	R

The following samples were analyzed in this batch: HS24060122-01 HS24060122-02 HS24060122-03 HS24060122-04 HS24060122-05 HS24060122-06

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24060122

QC BATCH REPORT

Batch ID: R468689 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WMBLK-06052024** Units: **mg/L** Analysis Date: **05-Jun-2024 14:30**
Client ID: Run ID: **Balance1_468689** SeqNo: **8051318** 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-06052024** Units: **mg/L** Analysis Date: **05-Jun-2024 14:30**
Client ID: Run ID: **Balance1_468689** SeqNo: **8051317** 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: **HS24060122-02 DUP** Units: **mg/L** Analysis Date: **05-Jun-2024 14:30**
Client ID: **MW-48** Run ID: **Balance1_468689** SeqNo: **8051312** 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)	1672	10.0					1668	0.24	20	

The following samples were analyzed in this batch: HS24060122-01 HS24060122-02 HS24060122-03 HS24060122-04 HS24060122-05 HS24060122-06

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24060122

QC BATCH REPORT

Batch ID: R468893 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **08-Jun-2024 11:22**
Client ID: Run ID: **ICS-Integrion_468893** SeqNo: **8055983** 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: **08-Jun-2024 11:34**
Client ID: Run ID: **ICS-Integrion_468893** SeqNo: **8055984** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.17	0.500	20	0	101	90 - 110				
Sulfate	19.66	0.500	20	0	98.3	90 - 110				

MS Sample ID: **HS24060122-02MS** Units: **mg/L** Analysis Date: **08-Jun-2024 11:57**
Client ID: **MW-48** Run ID: **ICS-Integrion_468893** SeqNo: **8055988** PrepDate: DF: **20**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	500.9	10.0	200	320.4	90.2	80 - 120				
Sulfate	822.6	10.0	200	711.5	55.6	80 - 120				S

MS Sample ID: **HS24051900-01MS** Units: **mg/L** Analysis Date: **08-Jun-2024 13:19**
Client ID: Run ID: **ICS-Integrion_468893** SeqNo: **8055999** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	122	0.500	10	116.7	52.5	80 - 120				SEO
Sulfate	48.99	0.500	10	44.44	45.5	80 - 120				SO

MSD Sample ID: **HS24060122-02MSD** Units: **mg/L** Analysis Date: **08-Jun-2024 12:03**
Client ID: **MW-48** Run ID: **ICS-Integrion_468893** SeqNo: **8055989** PrepDate: DF: **20**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	516.2	10.0	200	320.4	97.9	80 - 120	500.9	3	20	
Sulfate	819.3	10.0	200	711.5	53.9	80 - 120	822.6	0.404	20	S

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24060122

QC BATCH REPORT

Batch ID: R468893 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MSD Sample ID: **HS24051900-01MSD** Units: **mg/L** Analysis Date: **08-Jun-2024 13:25**
Client ID: Run ID: **ICS-Integrion_468893** SeqNo: **8056000** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	121.8	0.500	10	116.7	51.2	80 - 120	122	0.103	20	SEO
Sulfate	48.99	0.500	10	44.44	45.5	80 - 120	48.99	0.00898	20	SO

The following samples were analyzed in this batch: HS24060122-01 HS24060122-02 HS24060122-03 HS24060122-04 HS24060122-05 HS24060122-06

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: **HS24060122**

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
Arkansas	88-00356_2024	27-Mar-2025
California	2919; 2025	30-Apr-2025
Florida	E87611-38	30-Jun-2024
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352 2023-2024	31-Jul-2024
Kentucky	123043	30-Apr-2025
Louisiana	03087 2023-2024	30-Jun-2024
Maryland	343; 2023-2024	30-Jun-2024
North Carolina	624 - 2024	31-Dec-2024
Oklahoma	2023-140	31-Aug-2024
Tennessee	04016	30-Apr-2025
Texas	T104704231 TX-C24-00130	30-Apr-2025
Utah	TX026932023-14	31-Jul-2024

Sample Receipt Checklist

Work Order ID: HS24060122 **Date/Time Received:** **04-Jun-2024 10:30**

Client Name: TRC-HOU **Received by:** **Belinda Gomez**

Completed By:	/S/ Armand Morgan	04-Jun-2024 12:42	**Reviewed by:**	/S/ Alexis Dorenbosch	04-Jun-2024 13:22
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **W** 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 ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:301766
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?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.2UC/3.3C 4.1UC/4.2C		IR 31
Cooler(s)/Kit(s):	51975/47888		
Date/Time sample(s) sent to storage:	06/04/24		
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:

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: 301766

HS24060122

TRC

NRG Limestone- Appendix III

ALS Project Manager:

Customer Information		Project Information			
Purchase Order	211385	Project Name	NRG Limestone- Appendix III	A	ICP_TW (B and Ca (App III))
Work Order		Project Number	528473.0000.0000	B	300_W (Cl, SO4)
Company Name	TRC Corporation	Bill To Company	TRC	C	Sub_Fluoride (Sub Fluoride to ALS Michigan)
Send Report To	Lori Burns	Invoice Attn	A/P	D	TDS_W 2540C (TDS)
Address	14701 St. Mary's Lane Suite 500	Address	14701 St. Mary's Lane Suite 500	E	ICP_TW (B, Ca, and Na (App 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	LBurns@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-47	6-3-24	1020	Water	2,8	3	X	X	X	X							
2	MW-48		845	Water	2,8	3	X	X	X	X							
3	MW-49		840	Water	2,8	3	X	X	X	X							
4	MW-50		935	Water	2,8	3	X	X	X	X							
5	MW-48- MS		845	Water	2,8	3	X	X	X	X							
6	MW-48- MSD		845	Water	2,8	3	X	X	X	X							
7	~~Field Blank~~ FB-01		1040	Water	2,8	3	X	X	X	X							
8	~~Field Duplicate~~ DUP-01		930	Water	2,8	3	X	X	X	X							
9																	
10																	

Sampler(s) Please Print & Sign: ~~Tyler~~ Ilyas Sediqi + HWI team

Shipment Method: Fedex

Required Turnaround Time: (Check Box) ☐ STD 10 Wk Days ☒ 5 Wk Days ☐ 3 Wk Days ☐ 24 -hour ☐ Other

Results Due Date:

Relinquished by: Ilyas Sediqi	Date: 6-3-24	Time: 1240	Received by:	Notes: NRG Limestone PRIVILEGED & CONFIDENTIAL	
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler ID	Cooler Temp.
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory): 6/4/24	5195	3.2
				47666	4.1

QC Package: (Check One Box Below)

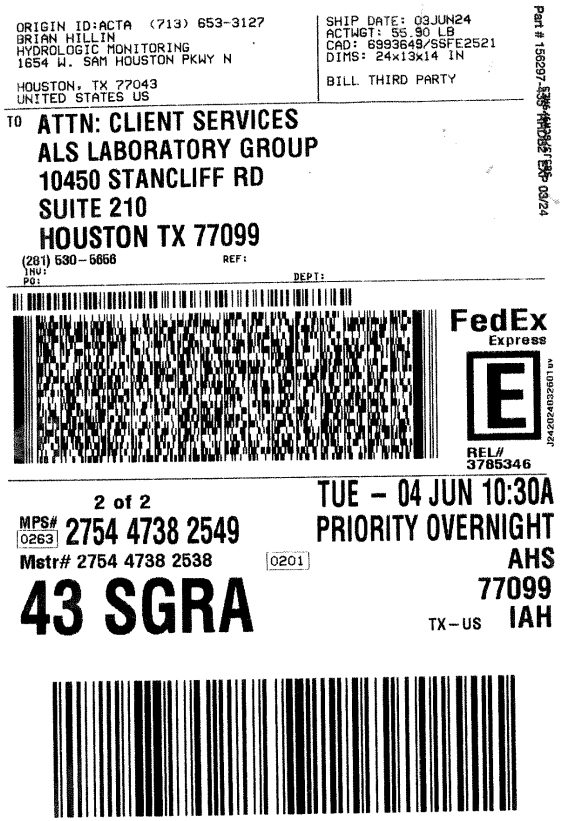
☐ Level II Std QC ☒ TRRP Checklist
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other

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.

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Privileged and Confidential


ORIGIN ID:ACTA (713) 653-3127
BRIAN HILLIN
HYDROLOGIC MONITORING
1654 W. SAM HOUSTON PKWY N

HOUSTON, TX 77043
UNITED STATES US

SHIP DATE: 03JUN24
ACTWGT: 55.90 LB
CAD: 6993649/SSFE2521
DIMS: 24x13x14 IN

BILL THIRD PARTY

TO ATTN: CLIENT SERVICES
ALS LABORATORY GROUP
10450 STANCLIFF RD
SUITE 210
HOUSTON TX 77099

(281) 530-5656 REF:

INV:
PO: DEPT:

FedEx Express

REL# 3785346

2 of 2
MPS# 0263 2754 4738 2549
Mstr# 2754 4738 2538

0201

43 SGRA

TUE - 04 JUN 10:30A
PRIORITY OVERNIGHT
AHS
77099
TX-US IAH

Courier or Driver: Place Astra or Barcoded Label Here

13-Jun-2024

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

Re: **HS24060122** Work Order: **24060334**

Dear Andrew,

ALS Environmental received 6 samples on 06-Jun-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 17.

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

Client: ALS Environmental
Project: HS24060122
Work Order: **24060334**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
24060334-01	MW-47	Water	HS24060122-01	6/3/2024 10:20	6/6/2024 09:30	☐
24060334-02	MW-48	Water	HS24060122-02	6/3/2024 08:45	6/6/2024 09:30	☐
24060334-03	MW-49	Water	HS24060122-03	6/3/2024 08:40	6/6/2024 09:30	☐
24060334-04	MW-50	Water	HS24060122-04	6/3/2024 09:35	6/6/2024 09:30	☐
24060334-05	FB-01	Water	HS24060122-05	6/3/2024 10:40	6/6/2024 09:30	☐
24060334-06	DUP-01	Water	HS24060122-06	6/3/2024 09:30	6/6/2024 09:30	☐

WET CHEMISTRY DATA ASSESSMENT CHECKLIST

Wet Chemistry	Batch Number: TITRATOR 1_240611A	Instrument ID: TITRATOR1	
Method: FL_4500C_W	Work order Number (s): 24060334		
Analyst Name: MS	Date: 6/11/2024	Reviewer Name: QN	Date: 6/12/2024

	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)

Client: ALS Environmental
Project: HS24060122
WorkOrder: **24060334**

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:	HS24060122
Work Order:	24060334

Case Narrative

Samples for the above noted Work Order were received on 06/06/2024. 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: *13-Jun-2024*

Client:	ALS Environmental		
Project:	HS24060122	**Work Order:**	24060334
Sample ID:	MW-47	**Lab ID:**	24060334-01
Collection Date:	6/3/2024 10:20 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	6/11/2024 11:39 AM

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

Client:	ALS Environmental		
Project:	HS24060122	**Work Order:**	24060334
Sample ID:	MW-48	**Lab ID:**	24060334-02
Collection Date:	6/3/2024 08:45 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **MGS**
Fluoride	**0.110**		**0.10**	**mg/L**	1	6/11/2024 11:39 AM

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

Client:	ALS Environmental		
Project:	HS24060122	**Work Order:**	24060334
Sample ID:	MW-49	**Lab ID:**	24060334-03
Collection Date:	6/3/2024 08:40 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	6/11/2024 11:39 AM

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

Client:	ALS Environmental		
Project:	HS24060122	**Work Order:**	24060334
Sample ID:	MW-50	**Lab ID:**	24060334-04
Collection Date:	6/3/2024 09:35 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	6/11/2024 11:39 AM

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

Client:	ALS Environmental		
Project:	HS24060122	**Work Order:**	24060334
Sample ID:	FB-01	**Lab ID:**	24060334-05
Collection Date:	6/3/2024 10:40 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	6/11/2024 11:39 AM

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

Client:	ALS Environmental		
Project:	HS24060122	**Work Order:**	24060334
Sample ID:	DUP-01	**Lab ID:**	24060334-06
Collection Date:	6/3/2024 09:30 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	6/11/2024 11:39 AM

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

Batch ID: **R405626** Instrument ID **Titrator 1** Method: **A4500-F C-11**

MBLK Sample ID: **MB-R405626-R405626** Units: **mg/L** Analysis Date: **6/11/2024 11:39 AM**
Client ID: Run ID: **TITRATOR 1_240611A** SeqNo: **10850394** 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-R405626-R405626** Units: **mg/L** Analysis Date: **6/11/2024 11:39 AM**
Client ID: Run ID: **TITRATOR 1_240611A** SeqNo: **10850395** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	4.98	0.10	5	0	99.6	90-111	0			

MS Sample ID: **24060334-02A MS** Units: **mg/L** Analysis Date: **6/11/2024 11:39 AM**
Client ID: **MW-48** Run ID: **TITRATOR 1_240611A** SeqNo: **10850398** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.18	0.10	5	0.11	101	90-111	0			

MSD Sample ID: **24060334-02A MSD** Units: **mg/L** Analysis Date: **6/11/2024 11:39 AM**
Client ID: **MW-48** Run ID: **TITRATOR 1_240611A** SeqNo: **10850399** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.28	0.10	5	0.11	103	90-111	5.18	1.91	20	

The following samples were analyzed in this batch:

24060334-01A	24060334-02A	24060334-03A
24060334-04A	24060334-05A	24060334-06A

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



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:** **25870**

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:	HS24060122
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS24060122-01**	**MW-47**	**Water**	**03 Jun 2024 10:20**
	Fluoride by ISE 4500. EQuis EDD			11 Jun 2024
2.	**HS24060122-02**	**MW-48**	**Water**	**03 Jun 2024 08:45**
	Fluoride by ISE 4500. EQuis EDD			11 Jun 2024
3.	**HS24060122-03**	**MW-49**	**Water**	**03 Jun 2024 08:40**
	Fluoride by ISE 4500. EQuis EDD			11 Jun 2024
4.	**HS24060122-04**	**MW-50**	**Water**	**03 Jun 2024 09:35**
	Fluoride by ISE 4500. EQuis EDD			11 Jun 2024
5.	**HS24060122-05**	**FB-01**	**Water**	**03 Jun 2024 10:40**
	Fluoride by ISE 4500. EQuis EDD			11 Jun 2024
6.	**HS24060122-06**	**DUP-01**	**Water**	**03 Jun 2024 09:30**
	Fluoride by ISE 4500. EQuis EDD			11 Jun 2024

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

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

RIGHT SOLUTIONS | RIGHT PARTNER

Subcontract Chain of Custody

SAMPLING STATE: Texas

COC ID: 25870

Relinquished By: _____ Date/Time: 6/4/24 1800

Received By: _____ Date/Time: 6/6/24 930

Cooler ID(s): _____ Temperature(s): 4.0°C OF2



ALS Group, USA
Holland, Michigan

Sample Receipt Checklist

Client Name: **ALS - HOUSTON** Date/Time Received: **06-Jun-24 09:30**

Work Order: **24060334** Received by: **WSK**

Checklist completed by Weston Kotecki (eSignature) 07-Jun-24 (Date) Reviewed by: Chelsey Cook (eSignature) 11-Jun-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):	4.0/4.0C	DF2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	6/7/2024 8:47:17 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:

SRC Page 1 of 1

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

August 26, 2024

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

Work Order: **HS24060131**

Laboratory Results for: **NRG Limestone- Appendix IV**

Dear Lori Burris,

ALS Environmental received 4 sample(s) on Jun 04, 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:	NRG Limestone- Appendix IV	
WorkOrder:	**HS24060131**	

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:	NRG Limestone- Appendix IV	
WorkOrder:	**HS24060131**	

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: 08/26/2024					
Project Name: NRG Limestone- Appendix IV			Laboratory Job Number: HS24060131					
Reviewer Name: Andy Neir			Prep Batch Number(s): 213127,213319,R469306,R475441					
#[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				
		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				1
		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: 08/26/2024				
Project Name: NRG Limestone- Appendix IV			Laboratory Job Number: HS24060131				
Reviewer Name: Andy Neir			Prep Batch Number(s): 213127,213319,R469306,R475441				
#[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.
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: 08/26/2024
Project Name: NRG Limestone- Appendix IV	Laboratory Job Number: HS24060131
Reviewer Name: Andy Neir	Prep Batch Number(s): 213127,213319,R469306,R475441

ER#[5]	Description
1	The analysis for Fluoride was subcontracted to ALS Environmental in Holland, Report is attached to the final report The analyses for Rad 226/228 were subcontracted to GEL Laboratories in Charleston SC, Report is attached to the final report
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: NRG Limestone- Appendix IV
WorkOrder: HS24060131
Start Date: 10-Jun-2024 End Date: 11-Jun-2024

Run ID:ICPMS06_468980
Instrument:ICPMS06
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
ICV	1	10-Jun-2024 14:38	037_ICV.d	AS BA BE CD CO CR LI MO PB SB SE TL
LLICV5	1	10-Jun-2024 14:39	038LCV5.d	AS BA BE CD CO CR LI MO PB SB SE TL
LLICV2	1	10-Jun-2024 14:41	039LCV2.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICB	1	10-Jun-2024 14:43	040_ICB.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICSA	1	10-Jun-2024 14:49	042ICSA.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICSAB	1	10-Jun-2024 14:51	043ICSB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 1	1	10-Jun-2024 15:20	055_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 1	1	10-Jun-2024 15:22	056_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 2	1	10-Jun-2024 16:13	075_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 2	1	10-Jun-2024 16:14	076_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 3	1	10-Jun-2024 16:44	088_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 3	1	10-Jun-2024 16:55	092_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
MBLK-213127	1	10-Jun-2024 16:59	093SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
LCS-213127	1	10-Jun-2024 17:01	094SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
ZZZZZZSD	5	10-Jun-2024 17:02	095SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
ZZZZZZMS	1	10-Jun-2024 17:08	097SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
ZZZZZZMSD	1	10-Jun-2024 17:10	098SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
ZZZZZZPDS	1	10-Jun-2024 17:12	099SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 4	1	10-Jun-2024 17:17	101_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 4	1	10-Jun-2024 17:19	102_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-48SD	5	10-Jun-2024 17:21	103SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-48	1	10-Jun-2024 17:24	104SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-48MS	1	10-Jun-2024 17:26	105SMPL.d	AS BA BE CD CO CR LI MO SB SE
MW-48MSD	1	10-Jun-2024 17:27	106SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-48PDS	1	10-Jun-2024 17:29	107SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-48MS	1	10-Jun-2024 17:31	108SMPL.d	PB TL
CCB 5	1	10-Jun-2024 17:39	111_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 5	1	10-Jun-2024 17:44	113_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICCV 6	1	10-Jun-2024 18:22	127_ICV.d	AS BA BE CD CO CR LI MO PB SB SE TL
LLCCV5	1	10-Jun-2024 18:24	128LCV5.d	AS BA BE CD CO CR LI MO PB SB SE TL
LLCCV2	1	10-Jun-2024 18:26	129LCV2.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICCB 6	1	10-Jun-2024 18:28	130_ICB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 7	1	10-Jun-2024 19:01	132_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 7	1	10-Jun-2024 19:02	133_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-48SD	5	10-Jun-2024 19:06	135SMPL.d	
MW-48MS	1	10-Jun-2024 19:08	136SMPL.d	
MW-48MSD	1	10-Jun-2024 19:12	138SMPL.d	
MW-48PDS	1	10-Jun-2024 19:14	139SMPL.d	
CCV 8	1	10-Jun-2024 19:18	141_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 8	1	10-Jun-2024 19:20	142_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICCV 9	1	10-Jun-2024 20:41	166_ICV.d	AS BA BE CD CO CR LI MO PB SB SE TL
LLCCV5	1	10-Jun-2024 20:43	167LCV5.d	AS BA BE CD CO CR LI MO PB SB SE TL
LLCCV2	1	10-Jun-2024 20:45	168LCV2.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICCB 9	1	10-Jun-2024 20:47	169_ICB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 10	1	10-Jun-2024 20:51	171_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 10	1	10-Jun-2024 20:53	172_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 11	1	10-Jun-2024 21:07	179_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 11	1	10-Jun-2024 21:10	180_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 12	1	10-Jun-2024 21:42	189_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 12	1	10-Jun-2024 21:46	191_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24060131
Start Date: 10-Jun-2024 End Date: 11-Jun-2024

Run ID:ICPMS06_468980
Instrument:ICPMS06
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
CCV 13	1	10-Jun-2024 22:05	201_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 13	1	10-Jun-2024 22:07	202_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-47	1	10-Jun-2024 22:09	203SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-49	1	10-Jun-2024 22:11	204SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-50	1	10-Jun-2024 22:15	206SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 14	1	10-Jun-2024 22:21	209_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 14	1	10-Jun-2024 22:22	210_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 15	1	10-Jun-2024 22:39	219_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 15	1	10-Jun-2024 22:41	220_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 16	1	10-Jun-2024 22:59	229_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 16	1	10-Jun-2024 23:01	230_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 17	1	10-Jun-2024 23:15	237_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 17	1	10-Jun-2024 23:16	238_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 18	1	10-Jun-2024 23:30	245_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 18	1	10-Jun-2024 23:32	246_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 19	1	10-Jun-2024 23:49	251_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 19	1	10-Jun-2024 23:51	252_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 20	1	11-Jun-2024 00:02	258_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 20	1	11-Jun-2024 00:04	259_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 21	1	11-Jun-2024 00:14	264_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 21	1	11-Jun-2024 00:15	265_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 22	1	11-Jun-2024 00:35	275_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 22	1	11-Jun-2024 00:37	276_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
LLCCV2	1	11-Jun-2024 00:39	277LCV2.d	AS BA BE CD CO CR LI MO PB SB SE TL
LLCCV5	1	11-Jun-2024 00:41	278LCV5.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICSA	1	11-Jun-2024 00:43	279ICSA.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICSAB	1	11-Jun-2024 00:45	280ICSB.d	AS BA BE CD CO CR LI MO PB SB SE TL

CCB EXCEPTIONS REPORT

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24060131

Run ID:ICPMS06_468980
Instrument:ICPMS06
Method:SW6020A

CCB 1	Date: 10-Jun-2024 15:22	Seq: 8060632	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Thallium	0.857	0.2	2	

CCB 2	Date: 10-Jun-2024 16:14	Seq: 8060822	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Chromium	-0.422	0.4	4	
Thallium	0.807	0.2	2	

CCB 3	Date: 10-Jun-2024 16:44	Seq: 8060964	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Chromium	-0.438	0.4	4	
Thallium	0.836	0.2	2	

CCB 4	Date: 10-Jun-2024 17:19	Seq: 8061159	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Chromium	-0.483	0.4	4	
Thallium	0.836	0.2	2	

CCB 5	Date: 10-Jun-2024 17:39	Seq: 8061168	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Chromium	-0.474	0.4	4	
Thallium	0.799	0.2	2	

CCB 7	Date: 10-Jun-2024 19:02	Seq: 8061329	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Thallium	0.855	0.2	2	

CCB 8	Date: 10-Jun-2024 19:20	Seq: 8061338	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Thallium	0.898	0.2	2	

CCB 10	Date: 10-Jun-2024 20:53	Seq: 8061355	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Thallium	1.038	0.2	2	

CCB 11	Date: 10-Jun-2024 21:10	Seq: 8061363	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Thallium	0.881	0.2	2	

CCB 12	Date: 10-Jun-2024 21:42	Seq: 8061367	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Thallium	0.867	0.2	2	

CCB 13	Date: 10-Jun-2024 22:07	Seq: 8061374	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Thallium	0.936	0.2	2	

CCB 14	Date: 10-Jun-2024 22:22	Seq: 8061388	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Thallium	0.941	0.2	2	

CCB 15	Date: 10-Jun-2024 22:41	Seq: 8061660	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	

CCB EXCEPTIONS REPORT

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24060131

Run ID:ICPMS06_468980
Instrument:ICPMS06
Method:SW6020A

	Thallium	0.953	0.2	2	

CCB 16	Date: 10-Jun-2024 23:01	Seq: 8061670	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Thallium	0.916	0.2	2

CCB 17	Date: 10-Jun-2024 23:16	Seq: 8061678	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Cadmium	0.212	0.2	2
	Chromium	-0.4	0.4	4
	Thallium	0.992	0.2	2

CCB 18	Date: 10-Jun-2024 23:32	Seq: 8061686	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Thallium	0.975	0.2	2

CCB 19	Date: 10-Jun-2024 23:51	Seq: 8061689	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Thallium	0.958	0.2	2

CCB 20	Date: 11-Jun-2024 00:04	Seq: 8061696	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Thallium	1.038	0.2	2

CCB 21	Date: 11-Jun-2024 00:15	Seq: 8061702	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Thallium	0.957	0.2	2

CCB 22	Date: 11-Jun-2024 00:37	Seq: 8061713	D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**
	Thallium	1.016	0.2	2

Client: TRC
Project: NRG Limestone- Appendix IV
Work Order: HS24060131

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24060131-01	MW-47	Water		03-Jun-2024 10:20	04-Jun-2024 10:30	☐
HS24060131-02	MW-48	Water		03-Jun-2024 08:45	04-Jun-2024 10:30	☐
HS24060131-03	MW-49	Water		03-Jun-2024 08:40	04-Jun-2024 10:30	☐
HS24060131-04	MW-50	Water		03-Jun-2024 09:35	04-Jun-2024 10:30	☐

Client: TRC
Project: NRG Limestone- Appendix IV
Sample ID: MW-47
Collection Date: 03-Jun-2024 10:20

ANALYTICAL REPORT
WorkOrder:HS24060131
Lab ID:HS24060131-01
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 06-Jun-2024		Analyst: JC
Antimony	< 0.000400		0.000400	0.00200	mg/L	1	10-Jun-2024 22:09
Arsenic	**0.00372**		**0.000400**	**0.00200**	**mg/L**	1	10-Jun-2024 22:09
Barium	**0.131**		**0.00190**	**0.00400**	**mg/L**	1	10-Jun-2024 22:09
Beryllium	< 0.000200		0.000200	0.00200	mg/L	1	10-Jun-2024 22:09
Cadmium	< 0.000200		0.000200	0.00200	mg/L	1	10-Jun-2024 22:09
Chromium	**0.00113**	J	**0.000400**	**0.00400**	**mg/L**	1	10-Jun-2024 22:09
Cobalt	**0.00224**	J	**0.000200**	**0.00500**	**mg/L**	1	10-Jun-2024 22:09
Lead	< 0.000600		0.000600	0.00200	mg/L	1	10-Jun-2024 22:09
Lithium	**0.0145**		**0.00100**	**0.00500**	**mg/L**	1	10-Jun-2024 22:09
Molybdenum	**0.00161**	J	**0.000600**	**0.00500**	**mg/L**	1	10-Jun-2024 22:09
Selenium	< 0.00110		0.00110	0.00200	mg/L	1	10-Jun-2024 22:09
Thallium	< 0.000200		0.000200	0.00200	mg/L	1	10-Jun-2024 22:09
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 11-Jun-2024		Analyst: JS
Mercury	< 0.0000300		0.0000300	0.000200	mg/L	1	11-Jun-2024 14:29
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	13-Jun-2024 13:05
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	01-Jul-2024 09:48
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	01-Jul-2024 09:48

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix IV
Sample ID: MW-48
Collection Date: 03-Jun-2024 08:45

ANALYTICAL REPORT
WorkOrder:HS24060131
Lab ID:HS24060131-02
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 06-Jun-2024		Analyst: JC
Antimony	< 0.000400		0.000400	0.00200	mg/L	1	10-Jun-2024 17:24
Arsenic	**0.000953**	J	**0.000400**	**0.00200**	**mg/L**	1	10-Jun-2024 17:24
Barium	**0.0491**		**0.00190**	**0.00400**	**mg/L**	1	10-Jun-2024 17:24
Beryllium	< 0.000200		0.000200	0.00200	mg/L	1	10-Jun-2024 17:24
Cadmium	< 0.000200		0.000200	0.00200	mg/L	1	10-Jun-2024 17:24
Chromium	**0.000522**	J	**0.000400**	**0.00400**	**mg/L**	1	10-Jun-2024 17:24
Cobalt	**0.000231**	J	**0.000200**	**0.00500**	**mg/L**	1	10-Jun-2024 17:24
Lead	< 0.000600		0.000600	0.00200	mg/L	1	10-Jun-2024 17:24
Lithium	**0.0133**		**0.00100**	**0.00500**	**mg/L**	1	10-Jun-2024 17:24
Molybdenum	< 0.000600		0.000600	0.00500	mg/L	1	10-Jun-2024 17:24
Selenium	< 0.00110		0.00110	0.00200	mg/L	1	10-Jun-2024 17:24
Thallium	< 0.000200		0.000200	0.00200	mg/L	1	10-Jun-2024 17:24
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 11-Jun-2024		Analyst: JS
Mercury	< 0.0000300		0.0000300	0.000200	mg/L	1	11-Jun-2024 14:31
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	13-Jun-2024 13:05
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	01-Jul-2024 09:48
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	01-Jul-2024 09:48

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix IV
Sample ID: MW-49
Collection Date: 03-Jun-2024 08:40

ANALYTICAL REPORT
WorkOrder:HS24060131
Lab ID:HS24060131-03
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 06-Jun-2024		Analyst: JC
Antimony	< 0.000400		0.000400	0.00200	mg/L	1	10-Jun-2024 22:11
Arsenic	**0.0161**		**0.000400**	**0.00200**	**mg/L**	1	10-Jun-2024 22:11
Barium	**1.15**		**0.00190**	**0.00400**	**mg/L**	1	10-Jun-2024 22:11
Beryllium	< 0.000200		0.000200	0.00200	mg/L	1	10-Jun-2024 22:11
Cadmium	< 0.000200		0.000200	0.00200	mg/L	1	10-Jun-2024 22:11
Chromium	**0.000627**	J	**0.000400**	**0.00400**	**mg/L**	1	10-Jun-2024 22:11
Cobalt	**0.0364**		**0.000200**	**0.00500**	**mg/L**	1	10-Jun-2024 22:11
Lead	< 0.000600		0.000600	0.00200	mg/L	1	10-Jun-2024 22:11
Lithium	**0.00164**	J	**0.00100**	**0.00500**	**mg/L**	1	10-Jun-2024 22:11
Molybdenum	< 0.000600		0.000600	0.00500	mg/L	1	10-Jun-2024 22:11
Selenium	< 0.00110		0.00110	0.00200	mg/L	1	10-Jun-2024 22:11
Thallium	< 0.000200		0.000200	0.00200	mg/L	1	10-Jun-2024 22:11
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 11-Jun-2024		Analyst: JS
Mercury	< 0.0000300		0.0000300	0.000200	mg/L	1	11-Jun-2024 14:36
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	13-Jun-2024 13:05
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	01-Jul-2024 09:48
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	01-Jul-2024 09:48

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix IV
Sample ID: MW-50
Collection Date: 03-Jun-2024 09:35

ANALYTICAL REPORT
WorkOrder:HS24060131
Lab ID:HS24060131-04
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 06-Jun-2024		Analyst: JC
Antimony	< 0.000400		0.000400	0.00200	mg/L	1	10-Jun-2024 22:15
Arsenic	< 0.000400		0.000400	0.00200	mg/L	1	10-Jun-2024 22:15
Barium	**0.0172**		**0.00190**	**0.00400**	**mg/L**	1	10-Jun-2024 22:15
Beryllium	< 0.000200		0.000200	0.00200	mg/L	1	10-Jun-2024 22:15
Cadmium	**0.00758**		**0.000200**	**0.00200**	**mg/L**	1	10-Jun-2024 22:15
Chromium	**0.000894**	J	**0.000400**	**0.00400**	**mg/L**	1	10-Jun-2024 22:15
Cobalt	**0.00520**		**0.000200**	**0.00500**	**mg/L**	1	10-Jun-2024 22:15
Lead	< 0.000600		0.000600	0.00200	mg/L	1	10-Jun-2024 22:15
Lithium	**0.0215**		**0.00100**	**0.00500**	**mg/L**	1	10-Jun-2024 22:15
Molybdenum	< 0.000600		0.000600	0.00500	mg/L	1	10-Jun-2024 22:15
Selenium	< 0.00110		0.00110	0.00200	mg/L	1	10-Jun-2024 22:15
Thallium	< 0.000200		0.000200	0.00200	mg/L	1	10-Jun-2024 22:15
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 11-Jun-2024		Analyst: JS
Mercury	< 0.0000300		0.0000300	0.000200	mg/L	1	11-Jun-2024 14:38
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	13-Jun-2024 13:05
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	01-Jul-2024 09:48
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	01-Jul-2024 09:48

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

Weight / Prep Log

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24060131

Batch ID: 213127 **Start Date:** 06 Jun 2024 10:00 **End Date:** 06 Jun 2024 10:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24060131-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24060131-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24060131-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24060131-04		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 213319 **Start Date:** 11 Jun 2024 08:00 **End Date:** 11 Jun 2024 08:00
Method: MERCURY PREP BY 7470A- WATER **Prep Code:** HG_WPR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24060131-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24060131-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24060131-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24060131-04		10 (mL)	10 (mL)	1	120 plastic HNO3

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24060131

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 213127 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS24060131-01	MW-47	03 Jun 2024 10:20		06 Jun 2024 10:00	10 Jun 2024 22:09	1
HS24060131-02	MW-48	03 Jun 2024 08:45		06 Jun 2024 10:00	10 Jun 2024 17:24	1
HS24060131-03	MW-49	03 Jun 2024 08:40		06 Jun 2024 10:00	10 Jun 2024 22:11	1
HS24060131-04	MW-50	03 Jun 2024 09:35		06 Jun 2024 10:00	10 Jun 2024 22:15	1
Batch ID: 213319 (0)	**Test Name :** MERCURY BY SW7470A				**Matrix:** Water	
HS24060131-01	MW-47	03 Jun 2024 10:20		11 Jun 2024 08:00	11 Jun 2024 14:29	1
HS24060131-02	MW-48	03 Jun 2024 08:45		11 Jun 2024 08:00	11 Jun 2024 14:31	1
HS24060131-03	MW-49	03 Jun 2024 08:40		11 Jun 2024 08:00	11 Jun 2024 14:36	1
HS24060131-04	MW-50	03 Jun 2024 09:35		11 Jun 2024 08:00	11 Jun 2024 14:38	1
Batch ID: R469306 (0)	**Test Name :** SUBCONTRACT ANALYSIS - FLOURIDE				**Matrix:** Water	
HS24060131-01	MW-47	03 Jun 2024 10:20			13 Jun 2024 13:05	1
HS24060131-02	MW-48	03 Jun 2024 08:45			13 Jun 2024 13:05	1
HS24060131-03	MW-49	03 Jun 2024 08:40			13 Jun 2024 13:05	1
HS24060131-04	MW-50	03 Jun 2024 09:35			13 Jun 2024 13:05	1
Batch ID: R475441 (0)	**Test Name :** SUBCONTRACT ANALYSIS - RADIUM 228				**Matrix:** Water	
HS24060131-01	MW-47	03 Jun 2024 10:20			01 Jul 2024 09:48	1
HS24060131-01	MW-47	03 Jun 2024 10:20			01 Jul 2024 09:48	1
HS24060131-02	MW-48	03 Jun 2024 08:45			01 Jul 2024 09:48	1
HS24060131-02	MW-48	03 Jun 2024 08:45			01 Jul 2024 09:48	1
HS24060131-03	MW-49	03 Jun 2024 08:40			01 Jul 2024 09:48	1
HS24060131-03	MW-49	03 Jun 2024 08:40			01 Jul 2024 09:48	1
HS24060131-04	MW-50	03 Jun 2024 09:35			01 Jul 2024 09:48	1
HS24060131-04	MW-50	03 Jun 2024 09:35			01 Jul 2024 09:48	1

WorkOrder: HS24060131
InstrumentID: HG04
Test Code: HG_W
Test Number: SW7470A
Test Name: Mercury by SW7470A

METHOD DETECTION / REPORTING LIMITS

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

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Mercury	7439-97-6	0.000100	0.000106	0.0000300	0.000200

WorkOrder: HS24060131
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	Antimony	7440-36-0	0.00125	0.00107	0.000400	0.00200
A	Arsenic	7440-38-2	0.00125	0.000983	0.000400	0.00200
A	Barium	7440-39-3	0.00250	0.00216	0.00190	0.00400
A	Beryllium	7440-41-7	0.000500	0.000466	0.000200	0.00200
A	Cadmium	7440-43-9	0.000500	0.000500	0.000200	0.00200
A	Chromium	7440-47-3	0.00125	0.000760	0.000400	0.00400
A	Cobalt	7440-48-4	0.000500	0.000509	0.000200	0.00500
A	Lead	7439-92-1	0.00125	0.00113	0.000600	0.00200
A	Lithium	7439-93-2	0.00250	0.00213	0.00100	0.00500
A	Molybdenum	7439-98-7	0.00125	0.00111	0.000600	0.00500
A	Selenium	7782-49-2	0.00125	0.00191	0.00110	0.00200
A	Thallium	7440-28-0	0.000500	0.000473	0.000200	0.00200

WorkOrder: HS24060131
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: HS24060131
InstrumentID: Subcontract
Test Code: SUB_RA 226
Test Number: NA
Test Name: Subcontract Analysis - Radium

METHOD DETECTION / REPORTING LIMITS

Matrix: NA **Units:** NA

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

WorkOrder: HS24060131
InstrumentID: Subcontract
Test Code: SUB_RA 228
Test Number: NA
Test Name: Subcontract Analysis - Radium 228

METHOD DETECTION / REPORTING LIMITS

Matrix: NA **Units:** NA

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

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24060131

QC BATCH REPORT

Batch ID: 213127 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MBLK Sample ID: **MBLK-213127** Units: **mg/L** Analysis Date: **10-Jun-2024 16:59**
Client ID: Run ID: **ICPMS06_468980** SeqNo: **8061150** PrepDate: **06-Jun-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	< 0.000400	0.00200								
Arsenic	< 0.000400	0.00200								
Barium	< 0.00190	0.00400								
Beryllium	< 0.000200	0.00200								
Cadmium	< 0.000200	0.00200								
Chromium	< 0.000400	0.00400								
Cobalt	< 0.000200	0.00500								
Lead	< 0.000600	0.00200								
Lithium	< 0.00100	0.00500								
Molybdenum	< 0.000600	0.00500								
Selenium	< 0.00110	0.00200								
Thallium	0.000946	0.00200								J

LCS Sample ID: **LCS-213127** Units: **mg/L** Analysis Date: **10-Jun-2024 17:01**
Client ID: Run ID: **ICPMS06_468980** SeqNo: **8061151** PrepDate: **06-Jun-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.0922	0.00200	0.1	0	92.2	80 - 120				
Arsenic	0.09563	0.00200	0.1	0	95.6	80 - 120				
Barium	0.09393	0.00400	0.1	0	93.9	80 - 120				
Beryllium	0.09389	0.00200	0.1	0	93.9	80 - 120				
Cadmium	0.09578	0.00200	0.1	0	95.8	80 - 120				
Chromium	0.1003	0.00400	0.1	0	100	80 - 120				
Cobalt	0.1007	0.00500	0.1	0	101	80 - 120				
Lead	0.09724	0.00200	0.1	0	97.2	80 - 120				
Lithium	0.04877	0.00500	0.05	0	97.5	80 - 120				
Molybdenum	0.09145	0.00500	0.1	0	91.4	80 - 120				
Selenium	0.09526	0.00200	0.1	0	95.3	80 - 120				
Thallium	0.09785	0.00200	0.1	0	97.8	80 - 120				

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24060131

QC BATCH REPORT

Batch ID: 213127 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MS Sample ID: **HS24060131-02MS** Units: **mg/L** Analysis Date: **10-Jun-2024 17:26**
Client ID: **MW-48** Run ID: **ICPMS06_468980** SeqNo: **8061162** PrepDate: **06-Jun-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.0881	0.00200	0.1	0	88.1	80 - 120				
Arsenic	0.09438	0.00200	0.1	0.000953	93.4	80 - 120				
Barium	0.1518	0.00400	0.1	0.04911	103	80 - 120				
Beryllium	0.08702	0.00200	0.1	0	87.0	80 - 120				
Cadmium	0.09066	0.00200	0.1	0	90.7	80 - 120				
Chromium	0.101	0.00400	0.1	0.000522	100	80 - 120				
Cobalt	0.09735	0.00500	0.1	0.000231	97.1	80 - 120				
Lithium	0.05793	0.00500	0.05	0.01331	89.3	80 - 120				
Molybdenum	0.0899	0.00500	0.1	0	89.9	80 - 120				
Selenium	0.09239	0.00200	0.1	0	92.4	80 - 120				

MS Sample ID: **HS24060122-02MS** Units: **mg/L** Analysis Date: **10-Jun-2024 17:08**
Client ID: Run ID: **ICPMS06_468980** SeqNo: **8061154** PrepDate: **06-Jun-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.08859	0.00200	0.1	0	88.6	80 - 120				
Arsenic	0.09606	0.00200	0.1	0.001167	94.9	80 - 120				
Barium	0.149	0.00400	0.1	0.05225	96.8	80 - 120				
Beryllium	0.08748	0.00200	0.1	0	87.5	80 - 120				
Cadmium	0.09297	0.00200	0.1	0	93.0	80 - 120				
Chromium	0.09384	0.00400	0.1	0.000479	93.4	80 - 120				
Cobalt	0.09731	0.00500	0.1	0.000254	97.1	80 - 120				
Lead	0.09449	0.00200	0.1	0	94.5	80 - 120				
Lithium	0.05632	0.00500	0.05	0.01374	85.2	80 - 120				
Molybdenum	0.08972	0.00500	0.1	0	89.7	80 - 120				
Selenium	0.09768	0.00200	0.1	0	97.7	80 - 120				
Thallium	0.09715	0.00200	0.1	0	97.2	80 - 120				

MS Sample ID: **HS24060131-02MS** Units: **mg/L** Analysis Date: **10-Jun-2024 17:31**
Client ID: **MW-48** Run ID: **ICPMS06_468980** SeqNo: **8061165** PrepDate: **06-Jun-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	0.08751	0.00200	0.1	0	87.5	80 - 120				
Thallium	0.08868	0.00200	0.1	0	88.7	80 - 120				

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24060131

QC BATCH REPORT

Batch ID: 213127 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MSD Sample ID: **HS24060131-02MSD** Units: **mg/L** Analysis Date: **10-Jun-2024 17:27**
Client ID: **MW-48** Run ID: **ICPMS06_468980** SeqNo: **8061163** PrepDate: **06-Jun-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Antimony	0.08286	0.00200	0.1	0	82.9	80 - 120	0.0881	6.14	20	
Arsenic	0.09226	0.00200	0.1	0.000953	91.3	80 - 120	0.09438	2.28	20	
Barium	0.1437	0.00400	0.1	0.04911	94.6	80 - 120	0.1518	5.48	20	
Beryllium	0.08725	0.00200	0.1	0	87.2	80 - 120	0.08702	0.258	20	
Cadmium	0.08803	0.00200	0.1	0	88.0	80 - 120	0.09066	2.94	20	
Chromium	0.09209	0.00400	0.1	0.000522	91.6	80 - 120	0.101	9.22	20	
Cobalt	0.09341	0.00500	0.1	0.000231	93.2	80 - 120	0.09735	4.13	20	
Lead	0.09137	0.00200	0.1	0	91.4	80 - 120	0.09665	5.62	20	
Lithium	0.05661	0.00500	0.05	0.01331	86.6	80 - 120	0.05793	2.32	20	
Molybdenum	0.08516	0.00500	0.1	0	85.2	80 - 120	0.0899	5.41	20	
Selenium	0.09108	0.00200	0.1	0	91.1	80 - 120	0.09239	1.42	20	
Thallium	0.09526	0.00200	0.1	0	95.3	80 - 120	0.09854	3.39	20	

MSD Sample ID: **HS24060122-02MSD** Units: **mg/L** Analysis Date: **10-Jun-2024 17:10**
Client ID: Run ID: **ICPMS06_468980** SeqNo: **8061155** PrepDate: **06-Jun-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Antimony	0.08478	0.00200	0.1	0	84.8	80 - 120	0.08859	4.4	20	
Arsenic	0.09159	0.00200	0.1	0.001167	90.4	80 - 120	0.09606	4.76	20	
Barium	0.1477	0.00400	0.1	0.05225	95.4	80 - 120	0.149	0.91	20	
Beryllium	0.08608	0.00200	0.1	0	86.1	80 - 120	0.08748	1.61	20	
Cadmium	0.09079	0.00200	0.1	0	90.8	80 - 120	0.09297	2.37	20	
Chromium	0.09524	0.00400	0.1	0.000479	94.8	80 - 120	0.09384	1.49	20	
Cobalt	0.09387	0.00500	0.1	0.000254	93.6	80 - 120	0.09731	3.6	20	
Lead	0.09188	0.00200	0.1	0	91.9	80 - 120	0.09449	2.8	20	
Lithium	0.05697	0.00500	0.05	0.01374	86.5	80 - 120	0.05632	1.14	20	
Molybdenum	0.08588	0.00500	0.1	0	85.9	80 - 120	0.08972	4.38	20	
Selenium	0.09231	0.00200	0.1	0	92.3	80 - 120	0.09768	5.65	20	
Thallium	0.09556	0.00200	0.1	0	95.6	80 - 120	0.09715	1.65	20	

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24060131

QC BATCH REPORT

Batch ID: 213127 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

PDS Sample ID: **HS24060131-02PDS** Units: **mg/L** Analysis Date: **10-Jun-2024 17:29**
Client ID: **MW-48** Run ID: **ICPMS06_468980** SeqNo: **8061164** PrepDate: **06-Jun-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.08201	0.00200	0.1	0.00005	82.0	75 - 125				
Arsenic	0.09261	0.00200	0.1	0.000953	91.7	75 - 125				
Barium	0.1426	0.00400	0.1	0.04911	93.5	75 - 125				
Beryllium	0.08737	0.00200	0.1	0.000022	87.3	75 - 125				
Cadmium	0.08847	0.00200	0.1	0.000131	88.3	75 - 125				
Chromium	0.09531	0.00400	0.1	0.000522	94.8	75 - 125				
Cobalt	0.0928	0.00500	0.1	0.000231	92.6	75 - 125				
Lead	0.09244	0.00200	0.1	0.000033	92.4	75 - 125				
Lithium	0.09852	0.00500	0.1	0.01331	85.2	70 - 125				
Molybdenum	0.08741	0.00500	0.1	0.000336	87.1	75 - 125				
Selenium	0.09301	0.00200	0.1	0.000619	92.4	75 - 125				
Thallium	0.1014	0.00200	0.1	0.000037	101	75 - 125				

PDS Sample ID: **HS24060122-02PDS** Units: **mg/L** Analysis Date: **10-Jun-2024 17:12**
Client ID: Run ID: **ICPMS06_468980** SeqNo: **8061156** PrepDate: **06-Jun-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.08458	0.00200	0.1	0.000036	84.5	75 - 125				
Arsenic	0.09632	0.00200	0.1	0.001167	95.2	75 - 125				
Barium	0.147	0.00400	0.1	0.05225	94.7	75 - 125				
Beryllium	0.08687	0.00200	0.1	0.000019	86.8	75 - 125				
Cadmium	0.08988	0.00200	0.1	0.000135	89.7	75 - 125				
Chromium	0.09596	0.00400	0.1	0.000479	95.5	75 - 125				
Cobalt	0.09491	0.00500	0.1	0.000254	94.7	75 - 125				
Lead	0.09505	0.00200	0.1	0.000037	95.0	75 - 125				
Lithium	0.1002	0.00500	0.1	0.01374	86.5	70 - 125				
Molybdenum	0.09176	0.00500	0.1	0.00029	91.5	75 - 125				
Selenium	0.09629	0.00200	0.1	0.000521	95.8	75 - 125				
Thallium	0.1043	0.00200	0.1	0.000116	104	75 - 125				

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24060131

QC BATCH REPORT

Batch ID: 213127 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

SD Sample ID: **HS24060131-02SD** Units: **mg/L** Analysis Date: **10-Jun-2024 17:21**
Client ID: **MW-48** Run ID: **ICPMS06_468980** SeqNo: **8061160** PrepDate: **06-Jun-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Antimony	< 0.00200	0.0100					0.00005	0	10	
Arsenic	< 0.00200	0.0100					0.000953	0	10	
Barium	0.05373	0.0200					0.04911	9.41	10	
Beryllium	< 0.00100	0.0100					0.000022	0	10	
Cadmium	< 0.00100	0.0100					0.000131	0	10	
Chromium	< 0.00200	0.0200					0.000522	0	10	
Cobalt	< 0.00100	0.0250					0.000231	0	10	
Lead	< 0.00300	0.0100					0.000033	0	10	
Lithium	0.01357	0.0250					0.01331	0	10	J
Molybdenum	< 0.00300	0.0250					0.000336	0	10	
Selenium	< 0.00550	0.0100					0.000619	0	10	
Thallium	< 0.00100	0.0100					0.000037	0	10	

SD Sample ID: **HS24060122-02SD** Units: **mg/L** Analysis Date: **10-Jun-2024 17:02**
Client ID: Run ID: **ICPMS06_468980** SeqNo: **8061152** PrepDate: **06-Jun-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Antimony	< 0.00200	0.0100					0.000036	0	10	
Arsenic	< 0.00200	0.0100					0.001167	0	10	
Barium	0.05731	0.0200					0.05225	9.69	10	
Beryllium	< 0.00100	0.0100					0.000019	0	10	
Cadmium	< 0.00100	0.0100					0.000135	0	10	
Chromium	< 0.00200	0.0200					0.000479	0	10	
Cobalt	< 0.00100	0.0250					0.000254	0	10	
Lead	< 0.00300	0.0100					0.000037	0	10	
Lithium	0.01525	0.0250					0.01374	0	10	J
Molybdenum	< 0.00300	0.0250					0.00029	0	10	
Selenium	< 0.00550	0.0100					0.000521	0	10	
Thallium	0.004517	0.0100					0.000116	0	10	J

The following samples were analyzed in this batch: HS24060131-01 HS24060131-02 HS24060131-03 HS24060131-04

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24060131

QC BATCH REPORT

Batch ID: 213319 (0) **Instrument: HG04** **Method: MERCURY BY SW7470A**

MBLK Sample ID: **MBLK-213319** Units: **mg/L** Analysis Date: **11-Jun-2024 13:53**
Client ID: Run ID: **HG04_469112** SeqNo: **8063834** PrepDate: **11-Jun-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	< 0.0000300	0.000200								

LCS Sample ID: **LCS-213319** Units: **mg/L** Analysis Date: **11-Jun-2024 13:55**
Client ID: Run ID: **HG04_469112** SeqNo: **8063835** PrepDate: **11-Jun-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00484	0.000200	0.005	0	96.8	80 - 120				

MS Sample ID: **HS24060131-02MS** Units: **mg/L** Analysis Date: **11-Jun-2024 14:33**
Client ID: **MW-48** Run ID: **HG04_469112** SeqNo: **8063848** PrepDate: **11-Jun-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00448	0.000200	0.005	0.000026	89.1	75 - 125				

MSD Sample ID: **HS24060131-02MSD** Units: **mg/L** Analysis Date: **11-Jun-2024 14:34**
Client ID: **MW-48** Run ID: **HG04_469112** SeqNo: **8063849** PrepDate: **11-Jun-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00448	0.000200	0.005	0.000026	89.1	75 - 125	0.00448	0	20	

The following samples were analyzed in this batch: HS24060131-01 HS24060131-02 HS24060131-03 HS24060131-04

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: **HS24060131**

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	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
Oklahoma	2023-140	31-Aug-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: HS24060131 **Date/Time Received:** **04-Jun-2024 10:30**

Client Name: TRC-HOU **Received by:** **Belinda Gomez**

Completed By:	/S/ Armand Morgan	04-Jun-2024 14:20	**Reviewed by:**	/S/ Alexis Dorenbosch	04-Jun-2024 16:57
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **W** 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 ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:301765
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?	Yes ☑	No ☐	

Temperature(s)/Thermometer(s):	3.2UC/3.3C 4.1UC/4.2C	IR 31
Cooler(s)/Kit(s):	51975/47888	
Date/Time sample(s) sent to storage:	06/04/24 14:20	

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:

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: 301765

HS24060131

TRC

NRG Limestone- Appendix IV

ALS Project Manager:

Customer Information		Project Information			
Purchase Order	211385	Project Name	NRG Limestone- Appendix IV	A	ICP_TW (Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl)
Work Order		Project Number		B	HG_W (Mercury)
Company Name	TRC Corporation	Bill To Company	TRC	C	SUB_RA 226 (Sub RA 226 to GEL)
Send Report To	Lori Burris	Invoice Attn	A/P	D	SUB_RA 228 (Sub RA 228 to GEL)
Address	14701 St. Mary's Lane Suite 500	Address	14701 St. Mary's Lane Suite 500	E	Sub_Fluoride (Report from Appendix III COC)
				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-47	6-3-24	1020	Water	2,8	4	X	X	X	X	X						
2	MW-48		845	Water	2,8	4	X	X	X	X	X						
3	MW-49		840	Water	2,8	4	X	X	X	X	X						
4	MW-50		935	Water	2,8	4	X	X	X	X	X						
5	MW-48-MS		845	Water	2,8	4	X	X	X	X	X						
6	MW-48-MSD		845	Water	2,8	4	X	X	X	X	X						
7	~~Duplicate~~																
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Ilyas Sediqi + HMI Team

Shipment Method: Fed Ex

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

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Ilyas Sediqi	6-3-24	1240	
Relinquished by:	Date:	Time:	Received by (Laboratory):
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory): 6/4/24 1130

Notes: NRG Limestone□PRIVILEGED & CONFIDENTIAL

Cooler ID	Cooler Temp.
CL0-1	INSI
51975	3.2
47886	4.1

QC Package: (Check One Box Below)

☐ Level II Std QC ☐ Level III Std QC/Raw Data ☐ Level IV SW846/CLP ☐ Other

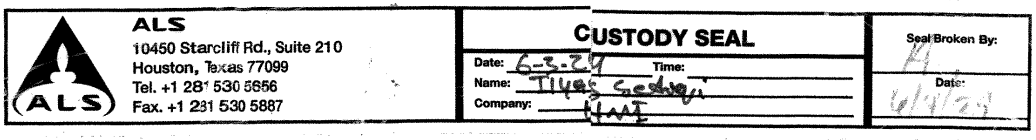
☒ TRRP Checklist ☐ TRRP Level IV

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.

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

CUSTODY SEAL
Date: 6-3-24 Time:
Name: Tyler Cadwell
Company: Hwt

Seal Broken By:
Date: 6/4/24



ORIGIN ID:ACTA (713) 653-3127
BRIAN HILLIN
HYDROLOGIC MONITORING
1654 W. SAM HOUSTON PKWY N

HOUSTON, TX 77043
UNITED STATES US

SHIP DATE: 03JUN24
ACTWGT: 57.50 LB
CAD: 6993643/SSFE2521
DIMS: 24x13x14 IN

BILL THIRD PARTY

Part # 156297-488-HHBS-E3E 03/24

TO ATTN: CLIENT SERVICES
ALS LABORATORY GROUP
10450 STANCLIFF RD
SUITE 210
HOUSTON TX 77099
(281) 530-5656

INV:
PO:
REF:
DEPT:

FedEx Express

REL# 3785346

1 of 2
TRK# 0201 2754 4738 2538
MASTER

43 SGRA

TUE - 04 JUN 10:30A
PRIORITY OVERNIGHT
AHS
77099
TX-US IAH

Courier or Driver: Place Astra or Barcoded Label Here

13-Jun-2024

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

Re: **HS24060131** Work Order: **24060336**

Dear Andrew,

ALS Environmental received 4 samples on 06-Jun-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 11.

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

Client: ALS Environmental
Project: HS24060131
Work Order: **24060336**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
24060336-01	MW-47	Water	HS24060131-01	6/3/2024 10:20	6/6/2024 09:30	☐
24060336-02	MW-48	Water	HS24060131-02	6/3/2024 10:20	6/6/2024 09:30	☐
24060336-03	MW-49	Water	HS24060131-03	6/3/2024 10:20	6/6/2024 09:30	☐
24060336-04	MW-50	Water	HS24060131-04	6/3/2024 10:20	6/6/2024 09:30	☐

Client: ALS Environmental
Project: HS24060131
WorkOrder: **24060336**

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:	HS24060131
Work Order:	24060336

Case Narrative

Samples for the above noted Work Order were received on 06/06/2024. 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.

Privileged and Confidential

ALS Group, USA

Date: *13-Jun-2024*

Client:	ALS Environmental		
Project:	HS24060131	**Work Order:**	24060336
Sample ID:	MW-47	**Lab ID:**	24060336-01
Collection Date:	6/3/2024 10:20 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	6/11/2024 11:39 AM

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

Client:	ALS Environmental		
Project:	HS24060131	**Work Order:**	24060336
Sample ID:	MW-48	**Lab ID:**	24060336-02
Collection Date:	6/3/2024 10:20 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	6/11/2024 11:39 AM

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

Client:	ALS Environmental		
Project:	HS24060131	**Work Order:**	24060336
Sample ID:	MW-49	**Lab ID:**	24060336-03
Collection Date:	6/3/2024 10:20 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	6/11/2024 11:39 AM

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

Client:	ALS Environmental		
Project:	HS24060131	**Work Order:**	24060336
Sample ID:	MW-50	**Lab ID:**	24060336-04
Collection Date:	6/3/2024 10:20 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	6/11/2024 11:39 AM

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

Batch ID: **R405626** Instrument ID **Titrator 1** Method: **A4500-F C-11**

MBLK Sample ID: **MB-R405626-R405626** Units: **mg/L** Analysis Date: **6/11/2024 11:39 AM**
Client ID: Run ID: **TITRATOR 1_240611A** SeqNo: **10850394** 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-R405626-R405626** Units: **mg/L** Analysis Date: **6/11/2024 11:39 AM**
Client ID: Run ID: **TITRATOR 1_240611A** SeqNo: **10850395** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	4.98	0.10	5	0	99.6	90-111	0			

MS Sample ID: **24060334-02A MS** Units: **mg/L** Analysis Date: **6/11/2024 11:39 AM**
Client ID: Run ID: **TITRATOR 1_240611A** SeqNo: **10850398** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.18	0.10	5	0.11	101	90-111	0			

MSD Sample ID: **24060334-02A MSD** Units: **mg/L** Analysis Date: **6/11/2024 11:39 AM**
Client ID: Run ID: **TITRATOR 1_240611A** SeqNo: **10850399** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.28	0.10	5	0.11	103	90-111	5.18	1.91	20	

The following samples were analyzed in this batch:

24060336-01A	24060336-02A	24060336-03A
24060336-04A		

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



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

Chain of Custody

SAMPLING STATE: **Texas** **COC ID:** **25877**

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:	HS24060131
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS24060131-01**	**MW-47**	**Water**	**03 Jun 2024 10:20**
	Fluoride by ISE 4500. EQuis EDD			11 Jun 2024
2.	**HS24060131-02**	**MW-48**	**Water**	**03 Jun 2024 10:20**
	Fluoride by ISE 4500. EQuis EDD			11 Jun 2024
3.	**HS24060131-03**	**MW-49**	**Water**	**03 Jun 2024 10:20**
	Fluoride by ISE 4500. EQuis EDD			11 Jun 2024
4.	**HS24060131-04**	**MW-50**	**Water**	**03 Jun 2024 10:20**
	Fluoride by ISE 4500. EQuis EDD			11 Jun 2024

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

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

Relinquished By: _____ Date/Time: 6/4/24 1800

Received By: _____ Date/Time: 6/6/24 930

Cooler ID(s): _____ Temperature(s): 4.0°C DF2

ALS Group, USA
Holland, Michigan

Sample Receipt Checklist

Client Name: **ALS - HOUSTON** Date/Time Received: **06-Jun-24 09:30**

Work Order: **24060336** Received by: **WSK**

Checklist completed by Weston Kotecki (eSignature) 07-Jun-24 (Date) Reviewed by: Chelsey Cook (eSignature) 11-Jun-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):	4.0/4.0C	DF2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	6/7/2024 8:57:05 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:

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SRC Page 1 of 1

GEL Laboratories LLC
a member of The GEL Group INC

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

June 28, 2024

Andy Neir
ALS Houston
10450 Stancliff Rd
Ste 210
Houston, Texas 77099

Re: Houston - Neir L2
Work Order: 670317

Dear Andy Neir:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on June 06, 2024. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4422.

Sincerely,

J H Crook

Jacob Crook
Project Manager

Purchase Order: HS24060131
Chain of Custody: 25878
Enclosures

problem solved

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

Certificate of Analysis

Report Date: June 28, 2024

Company :	ALS Houston
Address :	10450 Stancliff Rd Ste 210 Houston, Texas 77099
Contact:	Andy Neir
Project:	Houston - Neir L2

Client Sample ID:	MW-47	Project:	ALSE01323
Sample ID:	670317001	Client ID:	ALSE001
Matrix:	Water		
Collect Date:	03-JUN-24 10:20		
Receive Date:	06-JUN-24		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting												
GFPC Ra228, Liquid "As Received"												
Radium-228		2.31	1.82	3.00	pCi/L			KP1	06/27/24	1011	2623590	1
Radium-226+Radium-228 Calculation "See Parent Products"												
Radium-226+228 Sum		3.34			pCi/L		1	TON1	06/28/24	1433	2626770	2
Rad Radium-226												
Lucas Cell, Ra226, Liquid "As Received"												
Radium-226		1.03	0.672	1.00	pCi/L			MJ2	06/24/24	0817	2623517	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"			77.9	(15%-125%)

Notes:

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: June 28, 2024

Company :	ALS Houston
Address :	10450 Stancliff Rd Ste 210 Houston, Texas 77099
Contact:	Andy Neir
Project:	Houston - Neir L2

Client Sample ID:	MW-48	Project:	ALSE01323
Sample ID:	670317002	Client ID:	ALSE001
Matrix:	Water		
Collect Date:	03-JUN-24 10:20		
Receive Date:	06-JUN-24		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting												
GFPC Ra228, Liquid "As Received"												
Radium-228		2.45	1.39	3.00	pCi/L			KP1	06/27/24	1011	2623590	1
Radium-226+Radium-228 Calculation "See Parent Products"												
Radium-226+228 Sum		3.48			pCi/L		1	TON1	06/28/24	1433	2626770	2
Rad Radium-226												
Lucas Cell, Ra226, Liquid "As Received"												
Radium-226		1.03	0.523	1.00	pCi/L			MJ2	06/24/24	0817	2623517	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"			77.7	(15%-125%)

Notes:

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: June 28, 2024

Company :	ALS Houston
Address :	10450 Stancliff Rd Ste 210 Houston, Texas 77099
Contact:	Andy Neir
Project:	Houston - Neir L2

Client Sample ID:	MW-49	Project:	ALSE01323
Sample ID:	670317003	Client ID:	ALSE001
Matrix:	Water		
Collect Date:	03-JUN-24 10:20		
Receive Date:	06-JUN-24		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting												
GFPC Ra228, Liquid "As Received"												
Radium-228		3.46	1.53	3.00	pCi/L			KP1	06/27/24	1011	2623590	1
Radium-226+Radium-228 Calculation "See Parent Products"												
Radium-226+228 Sum		4.86			pCi/L		1	TON1	06/28/24	1433	2626770	2
Rad Radium-226												
Lucas Cell, Ra226, Liquid "As Received"												
Radium-226		1.40	0.460	1.00	pCi/L			MJ2	06/24/24	0855	2623517	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"			81.8	(15%-125%)

Notes:

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: June 28, 2024

Company :	ALS Houston
Address :	10450 Stancliff Rd Ste 210 Houston, Texas 77099
Contact:	Andy Neir
Project:	Houston - Neir L2

Client Sample ID:	MW-50	Project:	ALSE01323
Sample ID:	670317004	Client ID:	ALSE001
Matrix:	Water		
Collect Date:	03-JUN-24 10:20		
Receive Date:	06-JUN-24		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting												
GFPC Ra228, Liquid "As Received"												
Radium-228		2.11	1.53	3.00	pCi/L			KP1	06/27/24	1011	2623590	1
Radium-226+Radium-228 Calculation "See Parent Products"												
Radium-226+228 Sum		4.26			pCi/L		1	TON1	06/28/24	1433	2626770	2
Rad Radium-226												
Lucas Cell, Ra226, Liquid "As Received"												
Radium-226		2.15	0.432	1.00	pCi/L			MJ2	06/24/24	0855	2623517	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"			72.8	(15%-125%)

Notes:

Column headers are defined as follows:

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

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

QC Summary

Client : **ALS Houston**
10450 Stancliff Rd
Ste 210
Houston, Texas

Contact: **Andy Neir**

Workorder: **670317**

Report Date: December 3, 2024

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 2623590										
QC1205755732 670317001 DUP										
Radium-228		2.31		3.19	pCi/L	32.3		(0% - 100%)	KP1	06/27/2410:13
	Uncert:	+/-1.23		+/-1.31						
	TPU:	+/-1.36		+/-1.55						
QC1205755733 LCS										
Radium-228	23.7			28.6	pCi/L		121	(75%-125%)	KP1	06/27/2412:39
	Uncert:			+/-1.54						
	TPU:			+/-7.47						
QC1205755734 LCSD										
Radium-228	23.7			25.9	pCi/L	9.95	109	(0%-20%)	KP1	06/27/2410:13
	Uncert:			+/-1.53						
	TPU:			+/-6.84						
QC1205755731 MB										
Radium-228			U	-0.295	pCi/L				KP1	06/27/2410:12
	Uncert:			+/-0.432						
	TPU:			+/-0.432						
Rad Ra-226										
Batch 2623517										
QC1205755511 670629010 DUP										
Radium-226		0.793		1.12	pCi/L	34.5		(0% - 100%)	MJ2	06/24/2409:30
	Uncert:	+/-0.424		+/-0.502						
	TPU:	+/-0.451		+/-0.548						
QC1205755513 LCS										
Radium-226	27.1			25.6	pCi/L		94.6	(75%-125%)	MJ2	06/24/2409:30
	Uncert:			+/-2.45						
	TPU:			+/-4.64						
QC1205755510 MB										
Radium-226			U	0.216	pCi/L				MJ2	06/24/2409:30
	Uncert:			+/-0.290						
	TPU:			+/-0.293						
QC1205755512 670629010 MS										
Radium-226	128	0.793		144	pCi/L		112	(75%-125%)	MJ2	06/24/2409:30
	Uncert:	+/-0.424		+/-12.5						
	TPU:	+/-0.451		+/-27.1						

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

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

J Value is estimated

QC Summary

Workorder: **670317**

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

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

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

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

Receipt Narrative
for
ALS Environmental
SDG: 670317

June 28, 2024

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample receipt: The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on June 06, 2024 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Sample Identification: The laboratory received the following samples:

Laboratory ID	Client ID
670317001	MW-47
670317002	MW-48
670317003	MW-49
670317004	MW-50

Case Narrative:

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.



Jacob Crook
Project Manager

670317

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:** **25878**

SUBCONTRACT TO:

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29407

Phone: +1 843 556 8171

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:	HS24060131
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS24060131-01**	**MW-47**	**Water**	**03 Jun 2024 10:20**
	Report Combined RA 226/228 Value &the 2 Individual			11 Jun 2024
	Report Combined RA 226/228 Value &the 2 Individual			11 Jun 2024
2.	**HS24060131-02**	**MW-48**	**Water**	**03 Jun 2024 10:20**
	Report Combined RA 226/228 Value &the 2 Individual			11 Jun 2024
	Report Combined RA 226/228 Value &the 2 Individual			11 Jun 2024
3.	**HS24060131-03**	**MW-49**	**Water**	**03 Jun 2024 10:20**
	Report Combined RA 226/228 Value &the 2 Individual			11 Jun 2024
	Report Combined RA 226/228 Value &the 2 Individual			11 Jun 2024
4.	**HS24060131-04**	**MW-50**	**Water**	**03 Jun 2024 10:20**
	Report Combined RA 226/228 Value &the 2 Individual			11 Jun 2024
	Report Combined RA 226/228 Value &the 2 Individual			11 Jun 2024

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

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

Subcontract Chain of Custody

SAMPLING STATE: **Texas**

COC ID: **25878**

Relinquished By: AM

Date/Time: 6/4/24 18:00

Received By: Michelle Stevens

Date/Time: 6.6.24 930

Cooler ID(s):

Temperature(s):

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: ALS	SDG/AR/COC/Work Order: 670317
Received By: MLS	Date Received: 6.6.24
Carrier and Tracking Number	Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other 7386 7922 5583

Suspected Hazard Information	Yes	No	
			*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A)Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___
B) Did the client designate the samples are to be received as radioactive?		✓	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		✓	~~Maximum Net Counts Observed*~~ (Observed Counts - Area Background Counts): Ø CPM mR/Hr Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?		✓	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		✓	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	✓			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*			✓	Preservation Method: Wet Ice Ice Packs Dry ice None Other: Melted *all temperatures are recorded in Celsius TEMP: 19
4	Daily check performed and passed on IR temperature gun?	✓			Temperature Device Serial #: IR8.23 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?				Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?			✓	If Yes, are Encores or Soil Kits present for solids? Yes___ No___ NA___(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No) Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample ID's and containers affected:
8	Samples received within holding time?	✓			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	✓			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?			✓	Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?			✓	
13	COC form is properly signed in relinquished/received sections?	✓			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials AM Date 6/12/24 Page 1 of 1

GL-CHL-SR-001 Rev 7

List of current GEL Certifications as of 28 June 2024

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122024-08
New Hampshire NELAP	205424
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2023-152
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235
Utah NELAP	SC000122024-41
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Appendix C
Detection Monitoring Data (September 2024)

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

September 24, 2024

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

Work Order: **HS24090586**

Laboratory Results for: **NRG Limestone- Appendix III**

Dear Lori Burris,

ALS Environmental received 16 sample(s) on Sep 12, 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:	NRG Limestone- Appendix III	
WorkOrder:	**HS24090586**	

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:	NRG Limestone- Appendix III	
WorkOrder:	**HS24090586**	

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: 09/24/2024					
Project Name: NRG Limestone- Appendix III			Laboratory Job Number: HS24090586					
Reviewer Name: Andy Neir			Prep Batch Number(s): 217656,217714,R477207,R477265,R477395,R477620,R477933					
#[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: 09/24/2024				
Project Name: NRG Limestone- Appendix III			Laboratory Job Number: HS24090586				
Reviewer Name: Andy Neir			Prep Batch Number(s): 217656,217714,R477207,R477265,R477395,R477620,R477933				
#[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: 09/24/2024
Project Name: NRG Limestone- Appendix III	Laboratory Job Number: HS24090586
Reviewer Name: Andy Neir	Prep Batch Number(s): 217656,217714,R477207,R477265,R477395,R477620,R477933

ER#[5]	Description
1	Batch 217656, Metals Method SW6020, sample MW-02, MS and or MSD recovered outside the control limit for calcium and sodium, however, the result in the parent sample is 4x greater than the spike amount Batch 217714, Metals Method SW6020, sample HS24090283-02, MS and MSD were performed on unrelated sample
2	The analysis for Fluoride 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 217656, Metals Method SW6020, sample MW-02, PDS recovered outside the control limit for Sodium, 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: NRG Limestone- Appendix III
WorkOrder: HS24090586
Start Date: 17-Sep-2024 End Date: 18-Sep-2024

Run ID:ICPMS06_477341
Instrument:ICPMS06
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
ICV	1	17-Sep-2024 11:06	018_ICV.d	B CA NA
LLICV5	1	17-Sep-2024 11:12	020LCV5.d	B CA NA
LLICV2	1	17-Sep-2024 11:14	021LCV2.d	B CA NA
ICB	1	17-Sep-2024 11:16	022_ICB.d	B CA NA
ICV	1	17-Sep-2024 11:20	024_ICV.d	B CA NA
ICSA	1	17-Sep-2024 11:24	026ICSA.d	B CA NA
ICSAB	1	17-Sep-2024 11:26	027ICSB.d	B CA NA
CCV 1	1	17-Sep-2024 11:34	030_CCV.d	B CA NA
CCB 1	1	17-Sep-2024 11:36	031_CCB.d	B CA NA
CCV 2	1	17-Sep-2024 11:56	040_CCV.d	B CA NA
CCB 2	1	17-Sep-2024 11:58	041_CCB.d	B CA NA
CCV 3	1	17-Sep-2024 13:17	074_CCV.d	B CA NA
CCB 3	1	17-Sep-2024 13:19	075_CCB.d	B CA NA
CCV 4	1	17-Sep-2024 13:50	085_CCV.d	B CA NA
CCB 4	1	17-Sep-2024 13:56	088_CCB.d	B CA NA
CCV 5	1	17-Sep-2024 14:12	095_CCV.d	B CA NA
CCB 5	1	17-Sep-2024 14:13	096_CCB.d	B CA NA
CCV 6	1	17-Sep-2024 15:10	107_CCV.d	B CA NA
CCB 6	1	17-Sep-2024 15:12	108_CCB.d	B CA NA
CCV 7	1	17-Sep-2024 15:57	119_CCV.d	B CA NA
CCB 7	1	17-Sep-2024 15:59	120_CCB.d	B CA NA
CCV 8	1	17-Sep-2024 16:33	133_CCV.d	B CA NA
CCB 8	1	17-Sep-2024 16:35	134_CCB.d	B CA NA
CCV 9	1	17-Sep-2024 16:57	144_CCV.d	B CA NA
CCB 9	1	17-Sep-2024 16:59	145_CCB.d	B CA NA
CCV 10	1	17-Sep-2024 17:13	152_CCV.d	B CA NA
CCB 10	1	17-Sep-2024 17:15	153_CCB.d	B CA NA
ICCV 11	1	17-Sep-2024 20:26	173_ICV.d	B CA NA
LLCCV5	1	17-Sep-2024 20:28	174LCV5.d	B CA NA
LLCCV2	1	17-Sep-2024 20:30	175LCV2.d	B CA NA
ICCB 11	1	17-Sep-2024 20:32	176_ICB.d	B CA NA
CCV 12	1	17-Sep-2024 20:35	178_CCV.d	B CA NA
CCB 12	1	17-Sep-2024 20:37	179_CCB.d	B CA NA
MBLK-217656	1	17-Sep-2024 20:39	180SMPL.d	B CA NA
LCS-217656	1	17-Sep-2024 20:41	181SMPL.d	B CA NA
CCV 13	1	17-Sep-2024 20:43	182_CCV.d	B CA NA
CCB 13	1	17-Sep-2024 20:45	183_CCB.d	B CA NA
MW-02	1	17-Sep-2024 20:47	184SMPL.d	B
MW-02SD	5	17-Sep-2024 20:49	185SMPL.d	B NA
MW-02MS	1	17-Sep-2024 20:51	186SMPL.d	B CA NA
MW-02MSD	1	17-Sep-2024 20:53	187SMPL.d	B CA NA
MW-02PDS	1	17-Sep-2024 20:55	188SMPL.d	B NA
CCB 14	1	17-Sep-2024 21:01	191_CCB.d	B CA NA
CCV 14	1	17-Sep-2024 21:05	193_CCV.d	B CA NA
MW-01	1	17-Sep-2024 21:07	194SMPL.d	B CA
MW-17	1	17-Sep-2024 21:09	195SMPL.d	B CA
MW-18	1	17-Sep-2024 21:11	196SMPL.d	B CA
MW-19	1	17-Sep-2024 21:13	197SMPL.d	B CA
MW-20	1	17-Sep-2024 21:15	198SMPL.d	B CA NA
MW-21	1	17-Sep-2024 21:17	199SMPL.d	B CA NA

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24090586
Start Date: 17-Sep-2024 End Date: 18-Sep-2024

Run ID:ICPMS06_477341
Instrument:ICPMS06
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
CCV 15	1	17-Sep-2024 21:21	201_CCV.d	B CA NA
CCB 15	1	17-Sep-2024 21:23	202_CCB.d	B CA NA
MW-22	1	17-Sep-2024 21:25	203SMPL.d	B CA
MW-27R	1	17-Sep-2024 21:27	204SMPL.d	B
MW-28R	1	17-Sep-2024 21:29	205SMPL.d	B
MW-47	1	17-Sep-2024 21:33	207SMPL.d	B CA
MW-48	1	17-Sep-2024 21:35	208SMPL.d	B CA
MW-49	1	17-Sep-2024 21:39	210SMPL.d	B CA
MW-50	1	17-Sep-2024 21:41	211SMPL.d	B
CCV 16	1	17-Sep-2024 21:45	213_CCV.d	B CA NA
CCB 16	1	17-Sep-2024 21:47	214_CCB.d	B CA NA
CCV 17	1	17-Sep-2024 22:03	222_CCV.d	B CA NA
CCB 17	1	17-Sep-2024 22:05	223_CCB.d	B CA NA
CCV 18	1	17-Sep-2024 22:17	229_CCV.d	B CA NA
CCB 18	1	17-Sep-2024 22:18	230_CCB.d	B CA NA
CCV 19	1	17-Sep-2024 22:26	234_CCV.d	B CA NA
CCB 19	1	17-Sep-2024 22:28	235_CCB.d	B CA NA
CCV 20	1	17-Sep-2024 22:49	245_CCV.d	B CA NA
CCB 20	1	17-Sep-2024 22:50	246_CCB.d	B CA NA
CCV 21	1	17-Sep-2024 23:12	257_CCV.d	B CA NA
CCB 21	1	17-Sep-2024 23:14	258_CCB.d	B CA NA
CCV 22	1	17-Sep-2024 23:28	264_CCV.d	B CA NA
CCB 22	1	17-Sep-2024 23:30	265_CCB.d	B CA NA
CCV 23	1	17-Sep-2024 23:50	275_CCV.d	B CA NA
CCB 23	1	17-Sep-2024 23:52	276_CCB.d	B CA NA
LLCCV2	1	17-Sep-2024 23:54	277LCV2.d	B CA NA
LLCCV5	1	17-Sep-2024 23:56	278LCV5.d	B CA NA
ICSA	1	17-Sep-2024 23:58	279ICSA.d	B CA NA
ICSAB	1	18-Sep-2024 00:00	280ICSB.d	B CA NA

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24090586
Start Date: 18-Sep-2024 End Date: 19-Sep-2024

Run ID:ICPMS06_477479
Instrument:ICPMS06
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
ICV	1	18-Sep-2024 12:10	032_ICV.d	B CA NA
LLICV5	1	18-Sep-2024 12:14	034LCV5.d	B CA NA
LLICV2	1	18-Sep-2024 12:16	035LCV2.d	B CA NA
ICB	1	18-Sep-2024 12:18	036_ICB.d	B CA NA
ICSA	1	18-Sep-2024 12:23	038ICSA.d	B CA NA
ICSAB	1	18-Sep-2024 12:26	039ICSB.d	B CA NA
CCV 1	1	18-Sep-2024 12:32	042_CCV.d	B CA NA
CCB 1	1	18-Sep-2024 12:34	043_CCB.d	B CA NA
MW-27R	20	18-Sep-2024 12:37	044SMPL.d	CA
MW-02	20	18-Sep-2024 12:39	045SMPL.d	CA
MW-02SD	100	18-Sep-2024 12:41	046SMPL.d	CA
MW-02PDS	20	18-Sep-2024 12:43	047SMPL.d	CA
MW-28R	20	18-Sep-2024 12:44	048SMPL.d	CA
MW-50	20	18-Sep-2024 12:46	049SMPL.d	CA
CCV 2	1	18-Sep-2024 12:57	054_CCV.d	B CA NA
CCB 2	1	18-Sep-2024 12:58	055_CCB.d	B CA NA
CCV 3	1	18-Sep-2024 13:23	066_CCV.d	B CA NA
CCB 3	1	18-Sep-2024 13:24	067_CCB.d	B CA NA
CCV 4	1	18-Sep-2024 14:39	072_CCV.d	B CA NA
CCB 4	1	18-Sep-2024 14:41	073_CCB.d	B CA NA
CCV 5	1	18-Sep-2024 15:04	082_CCV.d	B CA NA
CCB 5	1	18-Sep-2024 15:05	083_CCB.d	B CA NA
CCV 6	1	18-Sep-2024 15:30	092_CCV.d	B CA NA
CCB 6	1	18-Sep-2024 15:32	093_CCB.d	B CA NA
CCB 7	1	18-Sep-2024 16:06	102_CCB.d	B CA NA
CCV 7	1	18-Sep-2024 16:10	104_CCV.d	B CA NA
ICCV 8	1	18-Sep-2024 19:56	124_ICV.d	B CA NA
LLCCV2	1	18-Sep-2024 20:00	126LCV2.d	B CA NA
ICCB 8	1	18-Sep-2024 20:02	127_ICB.d	B CA NA
LLCCV5	1	18-Sep-2024 20:04	128LCV5.d	B CA NA
CCV 9	1	18-Sep-2024 20:07	130_CCV.d	B CA NA
CCB 9	1	18-Sep-2024 20:09	131_CCB.d	B CA NA
CCV 10	1	18-Sep-2024 20:26	140_CCV.d	B CA NA
CCB 10	1	18-Sep-2024 20:28	141_CCB.d	B CA NA
CCV 11	1	18-Sep-2024 20:38	146_CCV.d	B CA NA
CCB 11	1	18-Sep-2024 20:40	147_CCB.d	B CA NA
CCV 12	1	18-Sep-2024 20:56	155_CCV.d	B CA NA
CCB 12	1	18-Sep-2024 20:57	156_CCB.d	B CA NA
CCV 13	1	18-Sep-2024 21:16	165_CCV.d	B CA NA
CCB 13	1	18-Sep-2024 21:18	166_CCB.d	B CA NA
CCV 14	1	18-Sep-2024 21:34	174_CCV.d	B CA NA
CCB 14	1	18-Sep-2024 21:36	175_CCB.d	B CA NA
CCV 15	1	18-Sep-2024 21:48	181_CCV.d	B CA NA
CCB 15	1	18-Sep-2024 21:49	182_CCB.d	B CA NA
CCV 16	1	18-Sep-2024 22:05	190_CCV.d	B CA NA
CCB 16	1	18-Sep-2024 22:07	191_CCB.d	B CA NA
CCV 17	1	18-Sep-2024 22:23	199_CCV.d	B CA NA
CCB 17	1	18-Sep-2024 22:25	200_CCB.d	B CA NA
CCV 18	1	18-Sep-2024 22:43	209_CCV.d	B CA NA
CCB 18	1	18-Sep-2024 22:45	210_CCB.d	B CA NA

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24090586
Start Date: 18-Sep-2024 End Date: 19-Sep-2024

Run ID:ICPMS06_477479
Instrument:ICPMS06
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
MBLK-217714	1	18-Sep-2024 22:47	211SMPL.d	B CA NA
LCS-217714	1	18-Sep-2024 22:49	212SMPL.d	B CA NA
ZZZZZZSD	5	18-Sep-2024 22:52	214SMPL.d	B NA
ZZZZZZMS	1	18-Sep-2024 22:54	215SMPL.d	B CA NA
ZZZZZZMSD	1	18-Sep-2024 22:56	216SMPL.d	B CA NA
ZZZZZZPDS	1	18-Sep-2024 22:58	217SMPL.d	B NA
CCV 19	1	18-Sep-2024 23:02	219_CCV.d	B CA NA
CCB 19	1	18-Sep-2024 23:04	220_CCB.d	B CA NA
DUP-01	1	18-Sep-2024 23:08	222SMPL.d	B CA NA
FB-01	1	18-Sep-2024 23:10	223SMPL.d	B CA NA
CCV 20	1	18-Sep-2024 23:14	225_CCV.d	B CA NA
CCB 20	1	18-Sep-2024 23:15	226_CCB.d	B CA NA
CCV 21	1	18-Sep-2024 23:44	235_CCV.d	B CA NA
CCB 21	1	18-Sep-2024 23:46	236_CCB.d	B CA NA
CCV 22	1	19-Sep-2024 00:02	244_CCV.d	B CA NA
CCB 22	1	19-Sep-2024 00:03	245_CCB.d	B CA NA
CCV 23	1	19-Sep-2024 00:24	255_CCV.d	B CA NA
CCB 23	1	19-Sep-2024 00:26	256_CCB.d	B CA NA
LLCCV2	1	19-Sep-2024 00:27	257LCV2.d	B CA NA
LLCCV5	1	19-Sep-2024 00:29	258LCV5.d	B CA NA
ICSA	1	19-Sep-2024 00:31	259ICSA.d	B CA NA
ICSAB	1	19-Sep-2024 00:33	260ICSB.d	B CA NA

CCB EXCEPTIONS REPORT

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24090586

Run ID:ICPMS06_477341
Instrument:ICPMS06
Method:SW6020A

CCB 3	Date: 17-Sep-2024 13:19	Seq: 8256212	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	39.79	14	200	

CCB 4	Date: 17-Sep-2024 13:56	Seq: 8256224	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	189.6	14	200	

CCB 5	Date: 17-Sep-2024 14:13	Seq: 8256232	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	188.2	14	200	

CCB 6	Date: 17-Sep-2024 15:12	Seq: 8256243	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	97.47	14	200	

CCB 7	Date: 17-Sep-2024 15:59	Seq: 8256391	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	96.13	14	200	

CCB 8	Date: 17-Sep-2024 16:35	Seq: 8256465	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	46.38	14	200	

CCB 9	Date: 17-Sep-2024 16:59	Seq: 8256496	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	40.63	14	200	

CCB 10	Date: 17-Sep-2024 17:15	Seq: 8256505	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	58.15	14	200	

CCB 14	Date: 17-Sep-2024 21:01	Seq: 8256721	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	17.96	14	200	

CCB 15	Date: 17-Sep-2024 21:23	Seq: 8256743	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	23.9	14	200	

CCB 16	Date: 17-Sep-2024 21:47	Seq: 8256755	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	26.92	14	200	

CCB 17	Date: 17-Sep-2024 22:05	Seq: 8256788	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	112.5	14	200	

CCB 18	Date: 17-Sep-2024 22:18	Seq: 8256795	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	36.5	14	200	

CCB 19	Date: 17-Sep-2024 22:28	Seq: 8256800	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	

CCB EXCEPTIONS REPORT

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24090586

Run ID:ICPMS06_477341
Instrument:ICPMS06
Method:SW6020A

	Sodium	123.5	14	200	
CCB 20	Date: 17-Sep-2024 22:50	Seq: 8256821	D/F: 1	Units: ug/L	
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	102.3	14	200	
CCB 21	Date: 17-Sep-2024 23:14	Seq: 8256833	D/F: 1	Units: ug/L	
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	52.32	14	200	
CCB 22	Date: 17-Sep-2024 23:30	Seq: 8256840	D/F: 1	Units: ug/L	
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	37.17	14	200	
CCB 23	Date: 17-Sep-2024 23:52	Seq: 8256851	D/F: 1	Units: ug/L	
	Analyte	**Result**	**MDL**	**Report Limit**	
	Sodium	76.36	14	200	

CCB EXCEPTIONS REPORT

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24090586

Run ID:ICPMS06_477479
Instrument:ICPMS06
Method:SW6020A

CCB 2	Date: 18-Sep-2024 12:58	Seq: 8257869	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	49.03	14	200	

CCB 3	Date: 18-Sep-2024 13:24	Seq: 8258048	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	37.77	14	200	

CCB 6	Date: 18-Sep-2024 15:32	Seq: 8258397	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	36.63	14	200	

CCB 7	Date: 18-Sep-2024 16:06	Seq: 8258562	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	28.86	14	200	

CCB 9	Date: 18-Sep-2024 20:09	Seq: 8258686	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Calcium	37.7	34	500	

CCB 10	Date: 18-Sep-2024 20:28	Seq: 8258696	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Calcium	34.11	34	500	

CCB 12	Date: 18-Sep-2024 20:57	Seq: 8258739	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	16.28	14	200	

CCB 13	Date: 18-Sep-2024 21:18	Seq: 8258749	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Calcium	36.57	34	500	
Sodium	230	14	200	

CCB 14	Date: 18-Sep-2024 21:36	Seq: 8258758	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	100.2	14	200	

CCB 15	Date: 18-Sep-2024 21:49	Seq: 8258786	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	59	14	200	

CCB 16	Date: 18-Sep-2024 22:07	Seq: 8258774	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	121.3	14	200	

CCB 17	Date: 18-Sep-2024 22:25	Seq: 8258794	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	87.47	14	200	

CCB 18	Date: 18-Sep-2024 22:45	Seq: 8258804	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	80.36	14	200	

CCB EXCEPTIONS REPORT

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24090586

Run ID:ICPMS06_477479
Instrument:ICPMS06
Method:SW6020A

CCB 19	Date: 18-Sep-2024 23:04	Seq: 8258916	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	49.69	14	200	

CCB 20	Date: 18-Sep-2024 23:15	Seq: 8258922	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Sodium	50.94	14	200	

CCB 21	Date: 18-Sep-2024 23:46	Seq: 8258929	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	29.31	11	20	
Sodium	326.1	14	200	

CCB 22	Date: 19-Sep-2024 00:03	Seq: 8258938	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	29.77	11	20	
Sodium	341.1	14	200	

CCB 23	Date: 19-Sep-2024 00:26	Seq: 8258949	D/F: 1	Units: ug/L
Analyte	**Result**	**MDL**	**Report Limit**	
Boron	31.16	11	20	
Sodium	232.8	14	200	

Client: TRC
Project: NRG Limestone- Appendix III
Work Order: HS24090586

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24090586-01	MW-01	Water		12-Sep-2024 09:25	12-Sep-2024 14:25	☐
HS24090586-02	MW-02	Water		12-Sep-2024 08:45	12-Sep-2024 14:25	☐
HS24090586-03	MW-17	Water		12-Sep-2024 10:05	12-Sep-2024 14:25	☐
HS24090586-04	MW-18	Water		12-Sep-2024 11:10	12-Sep-2024 14:25	☐
HS24090586-05	MW-19	Water		12-Sep-2024 08:40	12-Sep-2024 14:25	☐
HS24090586-06	MW-20	Water		12-Sep-2024 09:25	12-Sep-2024 14:25	☐
HS24090586-07	MW-21	Water		12-Sep-2024 10:00	12-Sep-2024 14:25	☐
HS24090586-08	MW-22	Water		12-Sep-2024 10:40	12-Sep-2024 14:25	☐
HS24090586-09	MW-27R	Water		12-Sep-2024 09:25	12-Sep-2024 14:25	☐
HS24090586-10	MW-28R	Water		12-Sep-2024 08:45	12-Sep-2024 14:25	☐
HS24090586-11	MW-47	Water		12-Sep-2024 10:45	12-Sep-2024 14:25	☐
HS24090586-12	MW-48	Water		12-Sep-2024 09:30	12-Sep-2024 14:25	☐
HS24090586-13	MW-49	Water		12-Sep-2024 08:40	12-Sep-2024 14:25	☐
HS24090586-14	MW-50	Water		12-Sep-2024 10:20	12-Sep-2024 14:25	☐
HS24090586-15	DUP-01	Water		12-Sep-2024 09:15	12-Sep-2024 14:25	☐
HS24090586-16	FB-01	Water		12-Sep-2024 08:50	12-Sep-2024 14:25	☐

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-01
Collection Date: 12-Sep-2024 09:25

ANALYTICAL REPORT
WorkOrder:HS24090586
Lab ID:HS24090586-01
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 17-Sep-2024		Analyst: JC
Boron	**0.0346**		**0.0110**	**0.0200**	**mg/L**	1	17-Sep-2024 21:07
Calcium	**63.8**		**0.0340**	**0.500**	**mg/L**	1	17-Sep-2024 21:07
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**291**		**2.00**	**5.00**	**mg/L**	10	14-Sep-2024 10:12
Sulfate	< 0.200		0.200	0.500	mg/L	1	14-Sep-2024 13:10
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**818**		**5.00**	**10.0**	**mg/L**	1	16-Sep-2024 09:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	24-Sep-2024 13:03

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-02
Collection Date: 12-Sep-2024 08:45

ANALYTICAL REPORT
WorkOrder:HS24090586
Lab ID:HS24090586-02
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 17-Sep-2024		Analyst: JC
Boron	**0.429**		**0.0110**	**0.0200**	**mg/L**	1	17-Sep-2024 20:47
Calcium	**177**		**0.680**	**10.0**	**mg/L**	20	18-Sep-2024 12:39
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**273**		**4.00**	**10.0**	**mg/L**	20	14-Sep-2024 10:18
Sulfate	**654**		**4.00**	**10.0**	**mg/L**	20	14-Sep-2024 10:18
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**1,450**		**5.00**	**10.0**	**mg/L**	1	16-Sep-2024 09:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	24-Sep-2024 13:03

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-17
Collection Date: 12-Sep-2024 10:05

ANALYTICAL REPORT
WorkOrder:HS24090586
Lab ID:HS24090586-03
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 17-Sep-2024		Analyst: JC
Boron	**0.0257**		**0.0110**	**0.0200**	**mg/L**	1	17-Sep-2024 21:09
Calcium	**3.15**		**0.0340**	**0.500**	**mg/L**	1	17-Sep-2024 21:09
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**8.87**		**0.200**	**0.500**	**mg/L**	1	14-Sep-2024 10:36
Sulfate	**7.56**		**0.200**	**0.500**	**mg/L**	1	14-Sep-2024 10:36
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**126**		**5.00**	**10.0**	**mg/L**	1	16-Sep-2024 09:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	24-Sep-2024 13:03

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-18
Collection Date: 12-Sep-2024 11:10

ANALYTICAL REPORT
WorkOrder:HS24090586
Lab ID:HS24090586-04
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 17-Sep-2024		Analyst: JC
Boron	**0.0386**		**0.0110**	**0.0200**	**mg/L**	1	17-Sep-2024 21:11
Calcium	**68.4**		**0.0340**	**0.500**	**mg/L**	1	17-Sep-2024 21:11
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**10.0**		**0.200**	**0.500**	**mg/L**	1	14-Sep-2024 11:05
Sulfate	**30.6**		**0.200**	**0.500**	**mg/L**	1	14-Sep-2024 11:05
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**314**		**5.00**	**10.0**	**mg/L**	1	16-Sep-2024 09:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	24-Sep-2024 13:03

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-19
Collection Date: 12-Sep-2024 08:40

ANALYTICAL REPORT
WorkOrder:HS24090586
Lab ID:HS24090586-05
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 17-Sep-2024		Analyst: JC
Boron	**0.0411**		**0.0110**	**0.0200**	**mg/L**	1	17-Sep-2024 21:13
Calcium	**37.1**		**0.0340**	**0.500**	**mg/L**	1	17-Sep-2024 21:13
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**39.4**		**0.200**	**0.500**	**mg/L**	1	14-Sep-2024 11:11
Sulfate	**93.1**		**0.200**	**0.500**	**mg/L**	1	14-Sep-2024 11:11
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**266**		**5.00**	**10.0**	**mg/L**	1	16-Sep-2024 09:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	24-Sep-2024 13:03

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-20
Collection Date: 12-Sep-2024 09:25

ANALYTICAL REPORT
WorkOrder:HS24090586
Lab ID:HS24090586-06
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 17-Sep-2024		Analyst: JC
Boron	**0.0403**		**0.0110**	**0.0200**	**mg/L**	1	17-Sep-2024 21:15
Calcium	**30.0**		**0.0340**	**0.500**	**mg/L**	1	17-Sep-2024 21:15
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**16.4**		**0.200**	**0.500**	**mg/L**	1	14-Sep-2024 11:17
Sulfate	**31.7**		**0.200**	**0.500**	**mg/L**	1	14-Sep-2024 11:17
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**292**		**5.00**	**10.0**	**mg/L**	1	17-Sep-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	24-Sep-2024 13:03

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-21
Collection Date: 12-Sep-2024 10:00

ANALYTICAL REPORT
WorkOrder:HS24090586
Lab ID:HS24090586-07
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 17-Sep-2024		Analyst: JC
Boron	**0.669**		**0.0110**	**0.0200**	**mg/L**	1	17-Sep-2024 21:17
Calcium	**50.3**		**0.0340**	**0.500**	**mg/L**	1	17-Sep-2024 21:17
Sodium	**14.7**		**0.0140**	**0.200**	**mg/L**	1	17-Sep-2024 21:17
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**11.9**		**0.200**	**0.500**	**mg/L**	1	14-Sep-2024 11:35
Sulfate	**204**		**2.00**	**5.00**	**mg/L**	10	14-Sep-2024 11:41
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**386**		**5.00**	**10.0**	**mg/L**	1	17-Sep-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	24-Sep-2024 13:03

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-22
Collection Date: 12-Sep-2024 10:40

ANALYTICAL REPORT
WorkOrder:HS24090586
Lab ID:HS24090586-08
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 17-Sep-2024		Analyst: JC
Boron	**0.0360**		**0.0110**	**0.0200**	**mg/L**	1	17-Sep-2024 21:25
Calcium	**58.7**		**0.0340**	**0.500**	**mg/L**	1	17-Sep-2024 21:25
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**30.4**		**0.200**	**0.500**	**mg/L**	1	14-Sep-2024 11:47
Sulfate	**143**		**1.00**	**2.50**	**mg/L**	5	14-Sep-2024 14:03
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**326**		**5.00**	**10.0**	**mg/L**	1	17-Sep-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	24-Sep-2024 13:03

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

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-27R
Collection Date: 12-Sep-2024 09:25

ANALYTICAL REPORT
WorkOrder:HS24090586
Lab ID:HS24090586-09
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 17-Sep-2024		Analyst: JC
Boron	**0.138**		**0.0110**	**0.0200**	**mg/L**	1	17-Sep-2024 21:27
Calcium	**418**		**0.680**	**10.0**	**mg/L**	20	18-Sep-2024 12:37
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**1,970**		**10.0**	**25.0**	**mg/L**	50	14-Sep-2024 11:53
Sulfate	**609**		**10.0**	**25.0**	**mg/L**	50	14-Sep-2024 11:53
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**3,780**		**5.00**	**10.0**	**mg/L**	1	17-Sep-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	24-Sep-2024 13:03

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

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Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-28R
Collection Date: 12-Sep-2024 08:45

ANALYTICAL REPORT
WorkOrder:HS24090586
Lab ID:HS24090586-10
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 17-Sep-2024		Analyst: JC
Boron	**0.194**		**0.0110**	**0.0200**	**mg/L**	1	17-Sep-2024 21:29
Calcium	**633**		**0.680**	**10.0**	**mg/L**	20	18-Sep-2024 12:44
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**2,600**		**10.0**	**25.0**	**mg/L**	50	14-Sep-2024 11:59
Sulfate	**716**		**10.0**	**25.0**	**mg/L**	50	14-Sep-2024 11:59
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**5,060**		**5.00**	**10.0**	**mg/L**	1	17-Sep-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	24-Sep-2024 13:03

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-47
Collection Date: 12-Sep-2024 10:45

ANALYTICAL REPORT
WorkOrder:HS24090586
Lab ID:HS24090586-11
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 17-Sep-2024		Analyst: JC
Boron	**0.0196**	J	**0.0110**	**0.0200**	**mg/L**	1	17-Sep-2024 21:33
Calcium	**43.3**		**0.0340**	**0.500**	**mg/L**	1	17-Sep-2024 21:33
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**135**		**1.00**	**2.50**	**mg/L**	5	14-Sep-2024 14:09
Sulfate	**35.6**		**0.200**	**0.500**	**mg/L**	1	14-Sep-2024 12:28
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**712**		**5.00**	**10.0**	**mg/L**	1	17-Sep-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	24-Sep-2024 13:03

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-48
Collection Date: 12-Sep-2024 09:30

ANALYTICAL REPORT
WorkOrder:HS24090586
Lab ID:HS24090586-12
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 17-Sep-2024		Analyst: JC
Boron	**0.0166**	J	**0.0110**	**0.0200**	**mg/L**	1	17-Sep-2024 21:35
Calcium	**46.0**		**0.0340**	**0.500**	**mg/L**	1	17-Sep-2024 21:35
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**148**		**1.00**	**2.50**	**mg/L**	5	14-Sep-2024 12:34
Sulfate	**205**		**1.00**	**2.50**	**mg/L**	5	14-Sep-2024 12:34
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**760**		**5.00**	**10.0**	**mg/L**	1	17-Sep-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	24-Sep-2024 13:03

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-49
Collection Date: 12-Sep-2024 08:40

ANALYTICAL REPORT
WorkOrder:HS24090586
Lab ID:HS24090586-13
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 17-Sep-2024		Analyst: JC
Boron	**0.0499**		**0.0110**	**0.0200**	**mg/L**	1	17-Sep-2024 21:39
Calcium	**127**		**0.0340**	**0.500**	**mg/L**	1	17-Sep-2024 21:39
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**296**		**2.00**	**5.00**	**mg/L**	10	14-Sep-2024 12:40
Sulfate	**58.6**		**2.00**	**5.00**	**mg/L**	10	14-Sep-2024 12:40
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**904**		**5.00**	**10.0**	**mg/L**	1	17-Sep-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	24-Sep-2024 13:03

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

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-50
Collection Date: 12-Sep-2024 10:20

ANALYTICAL REPORT
WorkOrder:HS24090586
Lab ID:HS24090586-14
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 17-Sep-2024		Analyst: JC
Boron	**0.710**		**0.0110**	**0.0200**	**mg/L**	1	17-Sep-2024 21:41
Calcium	**258**		**0.680**	**10.0**	**mg/L**	20	18-Sep-2024 12:46
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**92.6**		**0.200**	**0.500**	**mg/L**	1	14-Sep-2024 12:46
Sulfate	**1,210**		**4.00**	**10.0**	**mg/L**	20	14-Sep-2024 12:52
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**1,870**		**5.00**	**10.0**	**mg/L**	1	17-Sep-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	24-Sep-2024 13:03

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: DUP-01
Collection Date: 12-Sep-2024 09:15

ANALYTICAL REPORT
WorkOrder:HS24090586
Lab ID:HS24090586-15
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 18-Sep-2024		Analyst: JC
Boron	**0.0392**		**0.0110**	**0.0200**	**mg/L**	1	18-Sep-2024 23:08
Calcium	**34.7**		**0.0340**	**0.500**	**mg/L**	1	18-Sep-2024 23:08
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**39.4**		**0.200**	**0.500**	**mg/L**	1	14-Sep-2024 12:58
Sulfate	**93.1**		**0.200**	**0.500**	**mg/L**	1	14-Sep-2024 12:58
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**298**		**5.00**	**10.0**	**mg/L**	1	17-Sep-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	24-Sep-2024 13:03

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

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: FB-01
Collection Date: 12-Sep-2024 08:50

ANALYTICAL REPORT
WorkOrder:HS24090586
Lab ID:HS24090586-16
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 18-Sep-2024		Analyst: JC
Boron	< 0.0110		0.0110	0.0200	mg/L	1	18-Sep-2024 23:10
Calcium	**0.177**	J	**0.0340**	**0.500**	**mg/L**	1	18-Sep-2024 23:10
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	< 0.200		0.200	0.500	mg/L	1	14-Sep-2024 13:04
Sulfate	< 0.200		0.200	0.500	mg/L	1	14-Sep-2024 13:04
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: KC
Total Dissolved Solids (Residue, Filterable)	< 5.00		5.00	10.0	mg/L	1	18-Sep-2024 09:00
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	24-Sep-2024 13:03

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

Weight / Prep Log

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24090586

Batch ID: 217656 **Start Date:** 17 Sep 2024 09:00 **End Date:** 17 Sep 2024 09:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24090586-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24090586-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24090586-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24090586-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24090586-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24090586-06		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24090586-07		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24090586-08		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24090586-09		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24090586-10		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24090586-11		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24090586-12		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24090586-13		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24090586-14		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 217714 **Start Date:** 18 Sep 2024 13:30 **End Date:** 18 Sep 2024 13:30
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24090586-15		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24090586-16		10 (mL)	10 (mL)	1	120 plastic HNO3

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24090586

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 217656 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS24090586-01	MW-01	12 Sep 2024 09:25		17 Sep 2024 09:00	17 Sep 2024 21:07	1
HS24090586-02	MW-02	12 Sep 2024 08:45		17 Sep 2024 09:00	18 Sep 2024 12:39	20
HS24090586-02	MW-02	12 Sep 2024 08:45		17 Sep 2024 09:00	17 Sep 2024 20:47	1
HS24090586-03	MW-17	12 Sep 2024 10:05		17 Sep 2024 09:00	17 Sep 2024 21:09	1
HS24090586-04	MW-18	12 Sep 2024 11:10		17 Sep 2024 09:00	17 Sep 2024 21:11	1
HS24090586-05	MW-19	12 Sep 2024 08:40		17 Sep 2024 09:00	17 Sep 2024 21:13	1
HS24090586-06	MW-20	12 Sep 2024 09:25		17 Sep 2024 09:00	17 Sep 2024 21:15	1
HS24090586-07	MW-21	12 Sep 2024 10:00		17 Sep 2024 09:00	17 Sep 2024 21:17	1
HS24090586-08	MW-22	12 Sep 2024 10:40		17 Sep 2024 09:00	17 Sep 2024 21:25	1
HS24090586-09	MW-27R	12 Sep 2024 09:25		17 Sep 2024 09:00	18 Sep 2024 12:37	20
HS24090586-09	MW-27R	12 Sep 2024 09:25		17 Sep 2024 09:00	17 Sep 2024 21:27	1
HS24090586-10	MW-28R	12 Sep 2024 08:45		17 Sep 2024 09:00	18 Sep 2024 12:44	20
HS24090586-10	MW-28R	12 Sep 2024 08:45		17 Sep 2024 09:00	17 Sep 2024 21:29	1
HS24090586-11	MW-47	12 Sep 2024 10:45		17 Sep 2024 09:00	17 Sep 2024 21:33	1
HS24090586-12	MW-48	12 Sep 2024 09:30		17 Sep 2024 09:00	17 Sep 2024 21:35	1
HS24090586-13	MW-49	12 Sep 2024 08:40		17 Sep 2024 09:00	17 Sep 2024 21:39	1
HS24090586-14	MW-50	12 Sep 2024 10:20		17 Sep 2024 09:00	18 Sep 2024 12:46	20
HS24090586-14	MW-50	12 Sep 2024 10:20		17 Sep 2024 09:00	17 Sep 2024 21:41	1
Batch ID: 217714 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS24090586-15	DUP-01	12 Sep 2024 09:15		18 Sep 2024 13:30	18 Sep 2024 23:08	1
HS24090586-16	FB-01	12 Sep 2024 08:50		18 Sep 2024 13:30	18 Sep 2024 23:10	1

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24090586

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R477207 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS24090586-01	MW-01	12 Sep 2024 09:25			14 Sep 2024 13:10	1
HS24090586-01	MW-01	12 Sep 2024 09:25			14 Sep 2024 10:12	10
HS24090586-02	MW-02	12 Sep 2024 08:45			14 Sep 2024 10:18	20
HS24090586-03	MW-17	12 Sep 2024 10:05			14 Sep 2024 10:36	1
HS24090586-04	MW-18	12 Sep 2024 11:10			14 Sep 2024 11:05	1
HS24090586-05	MW-19	12 Sep 2024 08:40			14 Sep 2024 11:11	1
HS24090586-06	MW-20	12 Sep 2024 09:25			14 Sep 2024 11:17	1
HS24090586-07	MW-21	12 Sep 2024 10:00			14 Sep 2024 11:41	10
HS24090586-07	MW-21	12 Sep 2024 10:00			14 Sep 2024 11:35	1
HS24090586-08	MW-22	12 Sep 2024 10:40			14 Sep 2024 14:03	5
HS24090586-08	MW-22	12 Sep 2024 10:40			14 Sep 2024 11:47	1
HS24090586-09	MW-27R	12 Sep 2024 09:25			14 Sep 2024 11:53	50
HS24090586-10	MW-28R	12 Sep 2024 08:45			14 Sep 2024 11:59	50
HS24090586-11	MW-47	12 Sep 2024 10:45			14 Sep 2024 14:09	5
HS24090586-11	MW-47	12 Sep 2024 10:45			14 Sep 2024 12:28	1
HS24090586-12	MW-48	12 Sep 2024 09:30			14 Sep 2024 12:34	5
HS24090586-13	MW-49	12 Sep 2024 08:40			14 Sep 2024 12:40	10
HS24090586-14	MW-50	12 Sep 2024 10:20			14 Sep 2024 12:52	20
HS24090586-14	MW-50	12 Sep 2024 10:20			14 Sep 2024 12:46	1
HS24090586-15	DUP-01	12 Sep 2024 09:15			14 Sep 2024 12:58	1
HS24090586-16	FB-01	12 Sep 2024 08:50			14 Sep 2024 13:04	1
Batch ID: R477265 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS24090586-01	MW-01	12 Sep 2024 09:25			16 Sep 2024 09:30	1
HS24090586-02	MW-02	12 Sep 2024 08:45			16 Sep 2024 09:30	1
HS24090586-03	MW-17	12 Sep 2024 10:05			16 Sep 2024 09:30	1
HS24090586-04	MW-18	12 Sep 2024 11:10			16 Sep 2024 09:30	1
HS24090586-05	MW-19	12 Sep 2024 08:40			16 Sep 2024 09:30	1
Batch ID: R477395 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS24090586-06	MW-20	12 Sep 2024 09:25			17 Sep 2024 09:00	1
HS24090586-07	MW-21	12 Sep 2024 10:00			17 Sep 2024 09:00	1
HS24090586-08	MW-22	12 Sep 2024 10:40			17 Sep 2024 09:00	1
HS24090586-09	MW-27R	12 Sep 2024 09:25			17 Sep 2024 09:00	1
HS24090586-10	MW-28R	12 Sep 2024 08:45			17 Sep 2024 09:00	1
HS24090586-11	MW-47	12 Sep 2024 10:45			17 Sep 2024 09:00	1
HS24090586-12	MW-48	12 Sep 2024 09:30			17 Sep 2024 09:00	1
HS24090586-13	MW-49	12 Sep 2024 08:40			17 Sep 2024 09:00	1
HS24090586-14	MW-50	12 Sep 2024 10:20			17 Sep 2024 09:00	1
HS24090586-15	DUP-01	12 Sep 2024 09:15			17 Sep 2024 09:00	1

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24090586

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R477620 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS24090586-16	FB-01	12 Sep 2024 08:50			18 Sep 2024 09:00	1
Batch ID: R477933 (0)	**Test Name :** SUBCONTRACT ANALYSIS - FLOURIDE				**Matrix:** Water	
HS24090586-01	MW-01	12 Sep 2024 09:25			24 Sep 2024 13:03	1
HS24090586-02	MW-02	12 Sep 2024 08:45			24 Sep 2024 13:03	1
HS24090586-03	MW-17	12 Sep 2024 10:05			24 Sep 2024 13:03	1
HS24090586-04	MW-18	12 Sep 2024 11:10			24 Sep 2024 13:03	1
HS24090586-05	MW-19	12 Sep 2024 08:40			24 Sep 2024 13:03	1
HS24090586-06	MW-20	12 Sep 2024 09:25			24 Sep 2024 13:03	1
HS24090586-07	MW-21	12 Sep 2024 10:00			24 Sep 2024 13:03	1
HS24090586-08	MW-22	12 Sep 2024 10:40			24 Sep 2024 13:03	1
HS24090586-09	MW-27R	12 Sep 2024 09:25			24 Sep 2024 13:03	1
HS24090586-10	MW-28R	12 Sep 2024 08:45			24 Sep 2024 13:03	1
HS24090586-11	MW-47	12 Sep 2024 10:45			24 Sep 2024 13:03	1
HS24090586-12	MW-48	12 Sep 2024 09:30			24 Sep 2024 13:03	1
HS24090586-13	MW-49	12 Sep 2024 08:40			24 Sep 2024 13:03	1
HS24090586-14	MW-50	12 Sep 2024 10:20			24 Sep 2024 13:03	1
HS24090586-15	DUP-01	12 Sep 2024 09:15			24 Sep 2024 13:03	1
HS24090586-16	FB-01	12 Sep 2024 08:50			24 Sep 2024 13:03	1

WorkOrder: HS24090586
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
A	Sodium	7440-23-5	0.0500	0.979	0.0140	0.200

WorkOrder: HS24090586
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: HS24090586
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: HS24090586
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: NRG Limestone- Appendix III
WorkOrder: HS24090586

QC BATCH REPORT

Batch ID: 217656 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MBLK Sample ID: **MBLK-217656** Units: **mg/L** Analysis Date: **17-Sep-2024 20:39**
Client ID: Run ID: **ICPMS06_477341** SeqNo: **8256710** PrepDate: **17-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								
Sodium	< 0.0140	0.200								

LCS Sample ID: **LCS-217656** Units: **mg/L** Analysis Date: **17-Sep-2024 20:41**
Client ID: Run ID: **ICPMS06_477341** SeqNo: **8256711** PrepDate: **17-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4999	0.0200	0.5	0	100.0	80 - 120				
Calcium	5.043	0.500	5	0	101	80 - 120				
Sodium	5.042	0.200	5	0	101	80 - 120				

MS Sample ID: **HS24090586-02MS** Units: **mg/L** Analysis Date: **17-Sep-2024 20:51**
Client ID: **MW-02** Run ID: **ICPMS06_477341** SeqNo: **8256716** PrepDate: **17-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.9007	0.0200	0.5	0.4288	94.4	80 - 120				
Calcium	181.1	0.500	5	184.4	-65.8	80 - 120				SEO
Sodium	87.88	0.200	5	86.93	18.9	80 - 120				SO

MSD Sample ID: **HS24090586-02MSD** Units: **mg/L** Analysis Date: **17-Sep-2024 20:53**
Client ID: **MW-02** Run ID: **ICPMS06_477341** SeqNo: **8256717** PrepDate: **17-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.9277	0.0200	0.5	0.4288	99.8	80 - 120	0.9007	2.95	20	
Calcium	187	0.500	5	184.4	52.4	80 - 120	181.1	3.21	20	SEO
Sodium	90.6	0.200	5	86.93	73.4	80 - 120	87.88	3.05	20	SO

PDS Sample ID: **HS24090586-02PDS** Units: **mg/L** Analysis Date: **17-Sep-2024 20:55**
Client ID: **MW-02** Run ID: **ICPMS06_477341** SeqNo: **8256718** PrepDate: **17-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.9522	0.0200	0.5	0.4288	105	75 - 125				
Sodium	90.86	0.200	10	86.93	39.3	75 - 125				SO

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24090586

QC BATCH REPORT

Batch ID: 217656 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

PDS Sample ID: **HS24090586-02PDS** Units: **mg/L** Analysis Date: **18-Sep-2024 12:43**
Client ID: **MW-02** Run ID: **ICPMS06_477479** SeqNo: **8257837** PrepDate: **17-Sep-2024** DF: **20**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	368	10.0	200	176.5	95.7	75 - 125				

SD Sample ID: **HS24090586-02SD** Units: **mg/L** Analysis Date: **17-Sep-2024 20:49**
Client ID: **MW-02** Run ID: **ICPMS06_477341** SeqNo: **8256715** PrepDate: **17-Sep-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Boron	0.4494	0.100					0.4288	4.79	10	
Sodium	87.14	1.00					86.93	0.239	10	

SD Sample ID: **HS24090586-02SD** Units: **mg/L** Analysis Date: **18-Sep-2024 12:41**
Client ID: **MW-02** Run ID: **ICPMS06_477479** SeqNo: **8257836** PrepDate: **17-Sep-2024** DF: **100**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Calcium	172.9	50.0					176.5	2.03	10	

The following samples were analyzed in this batch:

HS24090586-01	HS24090586-02	HS24090586-03	HS24090586-04
HS24090586-05	HS24090586-06	HS24090586-07	HS24090586-08
HS24090586-09	HS24090586-10	HS24090586-11	HS24090586-12
HS24090586-13	HS24090586-14		

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24090586

QC BATCH REPORT

Batch ID: 217714 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MBLK Sample ID: **MBLK-217714** Units: **mg/L** Analysis Date: **18-Sep-2024 22:47**
Client ID: Run ID: **ICPMS06_477479** SeqNo: **8258907** PrepDate: **18-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-217714** Units: **mg/L** Analysis Date: **18-Sep-2024 22:49**
Client ID: Run ID: **ICPMS06_477479** SeqNo: **8258908** PrepDate: **18-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4729	0.0200	0.5	0	94.6	80 - 120				
Calcium	5.331	0.500	5	0	107	80 - 120				

MS Sample ID: **HS24090283-02MS** Units: **mg/L** Analysis Date: **18-Sep-2024 22:54**
Client ID: Run ID: **ICPMS06_477479** SeqNo: **8258911** PrepDate: **18-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5003	0.0200	0.5	0.1036	79.3	80 - 120				S
Calcium	29.15	0.500	5	26.33	56.4	80 - 120				SO

MSD Sample ID: **HS24090283-02MSD** Units: **mg/L** Analysis Date: **18-Sep-2024 22:56**
Client ID: Run ID: **ICPMS06_477479** SeqNo: **8258912** PrepDate: **18-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5158	0.0200	0.5	0.1036	82.4	80 - 120	0.5003	3.05	20	
Calcium	29.66	0.500	5	26.33	66.5	80 - 120	29.15	1.73	20	SO

PDS Sample ID: **HS24090283-02PDS** Units: **mg/L** Analysis Date: **18-Sep-2024 22:58**
Client ID: Run ID: **ICPMS06_477479** SeqNo: **8258913** PrepDate: **18-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.6381	0.0200	0.5	0.1036	107	75 - 125				

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24090586

QC BATCH REPORT

Batch ID: 217714 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

PDS Sample ID: **HS24090283-02PDS** Units: **mg/L** Analysis Date: **19-Sep-2024 14:35**
Client ID: Run ID: **ICPMS06_477586** SeqNo: **8260656** PrepDate: **18-Sep-2024** DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	123.2	5.00	100	25.88	97.4	75 - 125				

SD Sample ID: **HS24090283-02SD** Units: **mg/L** Analysis Date: **18-Sep-2024 22:52**
Client ID: Run ID: **ICPMS06_477479** SeqNo: **8258910** PrepDate: **18-Sep-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Boron	0.1093	0.100					0.1036	5.54	10	

SD Sample ID: **HS24090283-02SD** Units: **mg/L** Analysis Date: **19-Sep-2024 14:33**
Client ID: Run ID: **ICPMS06_477586** SeqNo: **8260655** PrepDate: **18-Sep-2024** DF: **50**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Calcium	27.24	25.0					25.88	5.24	10	

The following samples were analyzed in this batch: HS24090586-15 HS24090586-16

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24090586

QC BATCH REPORT

Batch ID: R477207 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **14-Sep-2024 09:01**
Client ID: Run ID: **ICS-Integrion_477207** SeqNo: **8252538** 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: **14-Sep-2024 09:13**
Client ID: Run ID: **ICS-Integrion_477207** SeqNo: **8252539** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	21.13	0.500	20	0	106	90 - 110				
Sulfate	20.52	0.500	20	0	103	90 - 110				

MS Sample ID: **HS24090586-06MS** Units: **mg/L** Analysis Date: **14-Sep-2024 11:23**
Client ID: **MW-20** Run ID: **ICS-Integrion_477207** SeqNo: **8252550** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	26.09	0.500	10	16.42	96.7	80 - 120				
Sulfate	40.35	0.500	10	31.73	86.1	80 - 120				

MS Sample ID: **HS24090586-02MS** Units: **mg/L** Analysis Date: **14-Sep-2024 10:24**
Client ID: **MW-02** Run ID: **ICS-Integrion_477207** SeqNo: **8252542** PrepDate: DF: **20**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	472.9	10.0	200	273	100.0	80 - 120				
Sulfate	856.1	10.0	200	654.3	101	80 - 120				

MSD Sample ID: **HS24090586-06MSD** Units: **mg/L** Analysis Date: **14-Sep-2024 11:29**
Client ID: **MW-20** Run ID: **ICS-Integrion_477207** SeqNo: **8252551** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	26.11	0.500	10	16.42	97.0	80 - 120	26.09	0.0843	20	
Sulfate	40.37	0.500	10	31.73	86.3	80 - 120	40.35	0.0496	20	

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24090586

QC BATCH REPORT

Batch ID: R477207 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MSD Sample ID: **HS24090586-02MSD** Units: **mg/L** Analysis Date: **14-Sep-2024 10:30**
Client ID: **MW-02** Run ID: **ICS-Integrion_477207** SeqNo: **8252543** PrepDate: DF: **20**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	484.3	10.0	200	273	106	80 - 120	472.9	2.38	20	
Sulfate	876	10.0	200	654.3	111	80 - 120	856.1	2.29	20	

The following samples were analyzed in this batch:

HS24090586-01	HS24090586-02	HS24090586-03	HS24090586-04
HS24090586-05	HS24090586-06	HS24090586-07	HS24090586-08
HS24090586-09	HS24090586-10	HS24090586-11	HS24090586-12
HS24090586-13	HS24090586-14	HS24090586-15	HS24090586-16

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24090586

QC BATCH REPORT

Batch ID: R477265 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WMBLK-09162024** Units: **mg/L** Analysis Date: **16-Sep-2024 09:30**
Client ID: Run ID: **Balance1_477265** SeqNo: **8253650** 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-09162024** Units: **mg/L** Analysis Date: **16-Sep-2024 09:30**
Client ID: Run ID: **Balance1_477265** SeqNo: **8253649** 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)	998	10.0	1000	0	99.8	85 - 115				

DUP Sample ID: **HS24090586-02 DUP** Units: **mg/L** Analysis Date: **16-Sep-2024 09:30**
Client ID: **MW-02** Run ID: **Balance1_477265** SeqNo: **8253645** 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)	1448	10.0					1452	0.276	20	

DUP Sample ID: **HS24090544-01 DUP** Units: **mg/L** Analysis Date: **16-Sep-2024 09:30**
Client ID: Run ID: **Balance1_477265** SeqNo: **8253633** 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)	788	10.0					788	0	20	

The following samples were analyzed in this batch: HS24090586-01 HS24090586-02 HS24090586-03 HS24090586-04 HS24090586-05

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24090586

QC BATCH REPORT

Batch ID: R477395 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WMBLK-09172024** Units: **mg/L** Analysis Date: **17-Sep-2024 09:00**
Client ID: Run ID: **Balance1_477395** SeqNo: **8256298** 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-09172024** Units: **mg/L** Analysis Date: **17-Sep-2024 09:00**
Client ID: Run ID: **Balance1_477395** SeqNo: **8256297** 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)	920	10.0	1000	0	92.0	85 - 115				

DUP Sample ID: **HS24090743-01 DUP** Units: **mg/L** Analysis Date: **17-Sep-2024 09:00**
Client ID: Run ID: **Balance1_477395** SeqNo: **8256287** 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)	1190	10.0					1100	7.86	20	

DUP Sample ID: **HS24090586-15 DUP** Units: **mg/L** Analysis Date: **17-Sep-2024 09:00**
Client ID: **DUP-01** Run ID: **Balance1_477395** SeqNo: **8256285** 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)	286	10.0					298	4.11	20	

The following samples were analyzed in this batch:

HS24090586-06	HS24090586-07	HS24090586-08	HS24090586-09
HS24090586-10	HS24090586-11	HS24090586-12	HS24090586-13
HS24090586-14	HS24090586-15		

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24090586

QC BATCH REPORT

Batch ID: R477620 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WMBLK-09182024** Units: **mg/L** Analysis Date: **18-Sep-2024 09:00**
Client ID: Run ID: **Balance1_477620** SeqNo: **8261023** 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-09182024** Units: **mg/L** Analysis Date: **18-Sep-2024 09:00**
Client ID: Run ID: **Balance1_477620** SeqNo: **8261022** 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)	950	10.0	1000	0	95.0	85 - 115				

DUP Sample ID: **HS24090832-08 DUP** Units: **mg/L** Analysis Date: **18-Sep-2024 09:00**
Client ID: Run ID: **Balance1_477620** SeqNo: **8261021** 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)	948	10.0					964	1.67	20	

DUP Sample ID: **HS24090649-04 DUP** Units: **mg/L** Analysis Date: **18-Sep-2024 09:00**
Client ID: Run ID: **Balance1_477620** SeqNo: **8261004** 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)	1116	10.0					1120	0.358	20	

The following samples were analyzed in this batch: HS24090586-16

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: **HS24090586**

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
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: HS24090586 **Date/Time Received:** **12-Sep-2024 14:25**

Client Name: TRC-HOU **Received by:** **Si Ma**

Completed By:	/S/ Kaycee Rogers	12-Sep-2024 17:15	**Reviewed by:**	/S/ Alexis Dorenbosch	13-Sep-2024 12:24
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **W** 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 ☐	2 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:322003, 322002
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?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	5.1UC/5.1C, 5.5UC/5.5C	IR 34	
Cooler(s)/Kit(s):	52577, 52545		
Date/Time sample(s) sent to storage:	09/12/2024 1715		
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:

Cincinnati, OH +1 513 733 5336
Everett, WA +1 425 356 2600
Fort Collins, CO +1 970 490 1511
Holland, MI +1 616 399 6070

Chain of Custody Form

Page 1 of 2

COC ID: 322003

HS24090586

TRC

NRG Limestone- Appendix III

ALS Project Manager:

Customer Information		Project Information			
Purchase Order	211385	Project Name	NRG Limestone- Appendix III	A	ICP_TW (B and Ca (App III))
Work Order		Project Number	528473.0000.0000	B	300_W (Cl, SO4)
Company Name	TRC Corporation	Bill To Company	TRC	C	Sub_Fluoride (Sub Fluoride to ALS Michigan)
Send Report To	Lori Burris	Invoice Attn	A/P	D	TDS_W 2540C (TDS)
Address	14701 St. Mary's Lane Suite 500	Address	14701 St. Mary's Lane Suite 500	E	ICP_TW (B, Ca, and Na (App 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-01	9-12-24	925	Water	2,8	3	X	X	X	X							
2	MW-02		845	Water	2,8	3	X	X	X	X							
3	MW-17		1005	Water	2,8	3	X	X	X	X							
4	MW-18		1110	Water	2,8	3	X	X	X	X							
5	MW-19		840	Water	2,8	3	X	X	X	X							
6	MW-20		925	Water	2,8	3	X	X	X	X							
7	MW-21		1000	Water	2,8	3		X	X	X	X						
8	MW-22		1040	Water	2,8	3	X	X	X	X							
9	MW-27R		925	Water	2,8	3	X	X	X	X							
10	MW-28R		845	Water	2,8	3	X	X	X	X							

Sampler(s) Please Print & Sign: Mason Bond + MNE 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: Ivan Sedlak	Date: 9-12-24	Time: 1425	Received by:	Notes: NRG Limestone ☐ PRIVILEGED & CONFIDENTIAL	
Relinquished by:	Date:	Time:	Received by (Laboratory): GM 09/12/24 14:25	Cooler ID	Cooler Temp.
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	52577	5.1
				52545	5.5

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.

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Fort Collins, CO +1 970 490 1511
Everett, WA +1 425 356 2600
Holland, MI +1 616 399 6070

Chain of Custody Form

COC ID: 322002

HS24090586 WV

TRC

NRG Limestone- Appendix III

ALS Project Manager:

Customer Information		Project Information			
Purchase Order	211385	Project Name	NRG Limestone- Appendix III	A	ICP_TW (B and Ca (App III))
Work Order		Project Number	528473.0000.0000	B	300_W (Cl, SO4)
Company Name	TRC Corporation	Bill To Company	TRC	C	Sub_Fluoride (Sub Fluoride to ALS Michigan)
Send Report To	Lori Burris	Invoice Attn	A/P	D	TDS_W 2540C (TDS)
Address	14701 St. Mary's Lane Suite 500	Address	14701 St. Mary's Lane Suite 500	E	ICP_TW (B, Ca, and Na (App 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-47~~	9-12-24	1045	Water	2,8	3	X	X	X	X							
2	~~MW-48~~		930	Water	2,8	3	X	X	X	X							
3	~~MW-49~~		840	Water	2,8	3	X	X	X	X							
4	~~MW-50~~		1020	Water	2,8	3	X	X	X	X							
5	~~MW-02~~ MS		845	Water	2,8	3	X	X	X	X							
6	~~MW-02~~ MSD		845	Water	2,8	3	X	X	X	X							
7	~~Field Blank~~ MW3 Dup-01		915	Water	2,8	3	X	X	X	X							
8	~~Field Duplicate~~ MW3 FB-01		850	Water	2,8	3	X	X	X	X							
9																	
10																	

Sampler(s) Please Print & Sign: Mason Bond + 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:	Time:	Received by:
Ilya Sedigi	9-12-24	14:25	
Relinquished by:	Date:	Time:	Received by (Laboratory): GM 09/12/24 14:25
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: NRG Limestone PRIVILEGED & CONFIDENTIAL

Cooler ID	Cooler Temp.

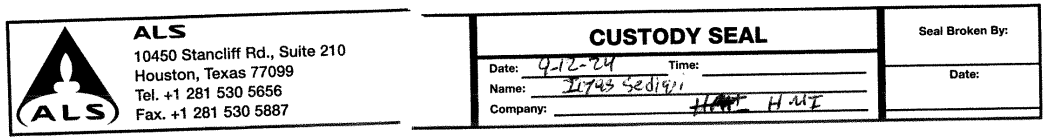
QC Package: (Check One Box Below)
☐ Level II Std QC ☒ TRRP Checklist
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other

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

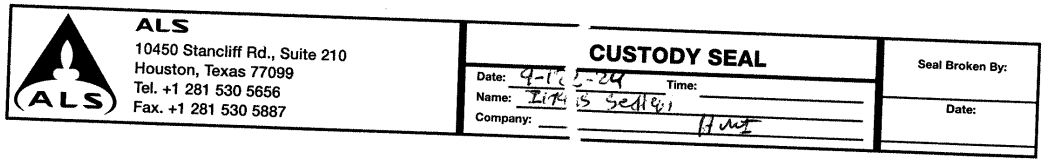
Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
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3. The Chain of Custody is a legal document. All information must be completed accurately.

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ALS
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Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887
CUSTODY SEAL
Date: 9-12-24
Time:
Name: Ivan Sedlak
Company: Hunt
Seal Broken By:
Date:

9-12-24


ALS
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887
CUSTODY SEAL
Date: 9-12-24
Time:
Name: Ivan Sedlak
Company: Hunt
Seal Broken By:
Date:

9-12-24

24-Sep-2024

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

Re: **HS24090586** Work Order: **24090532**

Dear Andrew,

ALS Environmental received 16 samples on 18-Sep-2024 10:30 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 27.

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

Client: ALS Environmental
Project: HS24090586
Work Order: **24090532**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
24090532-01	MW-01	Water	HS24090586-01	9/12/2024 09:25	9/18/2024 10:30	☐
24090532-02	MW-02	Water	HS24090586-02	9/12/2024 08:45	9/18/2024 10:30	☐
24090532-03	MW-17	Water	HS24090586-03	9/12/2024 10:05	9/18/2024 10:30	☐
24090532-04	MW-18	Water	HS24090586-04	9/12/2024 11:10	9/18/2024 10:30	☐
24090532-05	MW-19	Water	HS24090586-05	9/12/2024 08:40	9/18/2024 10:30	☐
24090532-06	MW-20	Water	HS24090586-06	9/12/2024 09:25	9/18/2024 10:30	☐
24090532-07	MW-21	Water	HS24090586-07	9/12/2024 10:00	9/18/2024 10:30	☐
24090532-08	MW-22	Water	HS24090586-08	9/12/2024 10:40	9/18/2024 10:30	☐
24090532-09	MW-27R	Water	HS24090586-09	9/12/2024 09:25	9/18/2024 10:30	☐
24090532-10	MW-28R	Water	HS24090586-10	9/12/2024 08:45	9/18/2024 10:30	☐
24090532-11	MW-47	Water	HS24090586-11	9/12/2024 10:45	9/18/2024 10:30	☐
24090532-12	MW-48	Water	HS24090586-12	9/12/2024 09:30	9/18/2024 10:30	☐
24090532-13	MW-49	Water	HS24090586-13	9/12/2024 08:40	9/18/2024 10:30	☐
24090532-14	MW-50	Water	HS24090586-14	9/12/2024 10:20	9/18/2024 10:30	☐
24090532-15	DUP-01	Water	HS24090586-15	9/12/2024 09:15	9/18/2024 10:30	☐
24090532-16	FB-01	Water	HS24090586-16	9/12/2024 08:50	9/18/2024 10:30	☐

WET CHEMISTRY DATA ASSESSMENT CHECKLIST

Wet Chemistry	Batch Number: TITRATOR1_240919C	Instrument ID: TITRATOR1	
Method: FL_4500C_W	Work order Number (s): 24090532		
Analyst Name: DHL	Date: 09/19/2024	Reviewer Name: JB	Date:

	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: HS24090586
WorkOrder: **24090532**

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:	HS24090586
Work Order:	24090532

Case Narrative

Samples for the above noted Work Order were received on 09/18/2024. 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.

Privileged and Confidential

ALS Group, USA

Date: *24-Sep-2024*

Client:	ALS Environmental		
Project:	HS24090586	**Work Order:**	24090532
Sample ID:	MW-01	**Lab ID:**	24090532-01
Collection Date:	9/12/2024 09:25 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **DYL**
Fluoride	ND		0.10	mg/L	1	9/19/2024 03:27 AM

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

Client: ALS Environmental
Project: HS24090586 **Work Order:** 24090532
Sample ID: MW-02 **Lab ID:** 24090532-02
Collection Date: 9/12/2024 08:45 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **DYL**
Fluoride	ND		0.10	mg/L	1	9/19/2024 03:27 AM

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

Client:	ALS Environmental		
Project:	HS24090586	**Work Order:**	24090532
Sample ID:	MW-17	**Lab ID:**	24090532-03
Collection Date:	9/12/2024 10:05 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **DYL**
Fluoride	ND		0.10	mg/L	1	9/19/2024 03:27 AM

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

Client: ALS Environmental
Project: HS24090586 **Work Order:** 24090532
Sample ID: MW-18 **Lab ID:** 24090532-04
Collection Date: 9/12/2024 11:10 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **DYL**
Fluoride	ND		0.10	mg/L	1	9/19/2024 03:27 AM

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

Client: ALS Environmental
Project: HS24090586 **Work Order:** 24090532
Sample ID: MW-19 **Lab ID:** 24090532-05
Collection Date: 9/12/2024 08:40 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **DYL**
Fluoride	ND		0.10	mg/L	1	9/19/2024 03:27 AM

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

Client:	ALS Environmental		
Project:	HS24090586	**Work Order:**	24090532
Sample ID:	MW-20	**Lab ID:**	24090532-06
Collection Date:	9/12/2024 09:25 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **DYL**
Fluoride	**0.110**		**0.10**	**mg/L**	1	9/19/2024 03:27 AM

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

Client: ALS Environmental
Project: HS24090586 **Work Order:** 24090532
Sample ID: MW-21 **Lab ID:** 24090532-07
Collection Date: 9/12/2024 10:00 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **DYL**
Fluoride	ND		0.10	mg/L	1	9/19/2024 03:27 AM

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

Client: ALS Environmental
Project: HS24090586 **Work Order:** 24090532
Sample ID: MW-22 **Lab ID:** 24090532-08
Collection Date: 9/12/2024 10:40 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **DYL**
Fluoride	ND		0.10	mg/L	1	9/19/2024 03:27 AM

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

Client: ALS Environmental
Project: HS24090586 **Work Order:** 24090532
Sample ID: MW-27R **Lab ID:** 24090532-09
Collection Date: 9/12/2024 09:25 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **DYL**
Fluoride	ND		0.10	mg/L	1	9/19/2024 03:27 AM

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

Client:	ALS Environmental		
Project:	HS24090586	**Work Order:**	24090532
Sample ID:	MW-28R	**Lab ID:**	24090532-10
Collection Date:	9/12/2024 08:45 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **DYL**
Fluoride	**0.120**		**0.10**	**mg/L**	1	9/19/2024 03:27 AM

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

Client:	ALS Environmental		
Project:	HS24090586	**Work Order:**	24090532
Sample ID:	MW-47	**Lab ID:**	24090532-11
Collection Date:	9/12/2024 10:45 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **DYL**
Fluoride	**0.180**		**0.10**	**mg/L**	1	9/19/2024 03:27 AM

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

Client:	ALS Environmental		
Project:	HS24090586	**Work Order:**	24090532
Sample ID:	MW-48	**Lab ID:**	24090532-12
Collection Date:	9/12/2024 09:30 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **DYL**
Fluoride	**0.150**		**0.10**	**mg/L**	1	9/19/2024 03:27 AM

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

Client: ALS Environmental
Project: HS24090586 **Work Order:** 24090532
Sample ID: MW-49 **Lab ID:** 24090532-13
Collection Date: 9/12/2024 08:40 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **DYL**
Fluoride	ND		0.10	mg/L	1	9/19/2024 03:27 AM

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

Client: ALS Environmental
Project: HS24090586 **Work Order:** 24090532
Sample ID: MW-50 **Lab ID:** 24090532-14
Collection Date: 9/12/2024 10:20 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **DYL**
Fluoride	ND		0.10	mg/L	1	9/19/2024 03:27 AM

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

Client:	ALS Environmental		
Project:	HS24090586	**Work Order:**	24090532
Sample ID:	DUP-01	**Lab ID:**	24090532-15
Collection Date:	9/12/2024 09:15 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **DYL**
Fluoride	ND		0.10	mg/L	1	9/19/2024 03:27 AM

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

Client: ALS Environmental
Project: HS24090586 **Work Order:** 24090532
Sample ID: FB-01 **Lab ID:** 24090532-16
Collection Date: 9/12/2024 08:50 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **DYL**
Fluoride	ND		0.10	mg/L	1	9/19/2024 03:27 AM

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

ALS Group, USA

Date: 24-Sep-24

Client: ALS Environmental

QC BATCH REPORT

Work Order: 24090532

Project: HS24090586

Batch ID: **R411828** Instrument ID **Titrator 1** Method: **A4500-F C-11**

MBLK Sample ID: **MB-R411828-R411828** Units: **mg/L** Analysis Date: **9/19/2024 03:27 AM**

Client ID: Run ID: **TITRATOR 1_240919C** SeqNo: **11130968** 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-R411828-R411828** Units: **mg/L** Analysis Date: **9/19/2024 03:27 AM**

Client ID: Run ID: **TITRATOR 1_240919C** SeqNo: **11130969** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.13	0.10	5	0	103	90-111	0			

MS Sample ID: **24090530-01A MS** Units: **mg/L** Analysis Date: **9/19/2024 03:27 AM**

Client ID: Run ID: **TITRATOR 1_240919C** SeqNo: **11130971** 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	0.21	104	90-111	0			

MSD Sample ID: **24090530-01A MSD** Units: **mg/L** Analysis Date: **9/19/2024 03:27 AM**

Client ID: Run ID: **TITRATOR 1_240919C** SeqNo: **11130972** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.48	0.10	5	0.21	105	90-111	5.41	1.29	20	

The following samples were analyzed in this batch:

24090532-01A	24090532-02A	24090532-03A
24090532-04A	24090532-05A	24090532-06A
24090532-07A	24090532-08A	24090532-09A
24090532-10A	24090532-11A	24090532-12A
24090532-13A	24090532-14A	24090532-15A
24090532-16A		

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

24090532

ALS - HOUSTON: ALS Environmental
Project: HS24090586

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: **26927**

SUBCONTRACT TO:

ALS Group USA, Corp.
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:	HS24090586
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS24090586-01**	**MW-01**	**Water**	**12 Sep 2024 09:25**
	Fluoride by ISE 4500. EQuis EDD			19 Sep 2024
2.	**HS24090586-02**	**MW-02**	**Water**	**12 Sep 2024 08:45**
	Fluoride by ISE 4500. EQuis EDD			19 Sep 2024
3.	**HS24090586-03**	**MW-17**	**Water**	**12 Sep 2024 10:05**
	Fluoride by ISE 4500. EQuis EDD			19 Sep 2024
4.	**HS24090586-04**	**MW-18**	**Water**	**12 Sep 2024 11:10**
	Fluoride by ISE 4500. EQuis EDD			19 Sep 2024
5.	**HS24090586-05**	**MW-19**	**Water**	**12 Sep 2024 08:40**
	Fluoride by ISE 4500. EQuis EDD			19 Sep 2024
6.	**HS24090586-06**	**MW-20**	**Water**	**12 Sep 2024 09:25**
	Fluoride by ISE 4500. EQuis EDD			19 Sep 2024
7.	**HS24090586-07**	**MW-21**	**Water**	**12 Sep 2024 10:00**
	Fluoride by ISE 4500. EQuis EDD			19 Sep 2024
8.	**HS24090586-08**	**MW-22**	**Water**	**12 Sep 2024 10:40**
	Fluoride by ISE 4500. EQuis EDD			19 Sep 2024
9.	**HS24090586-09**	**MW-27R**	**Water**	**12 Sep 2024 09:25**

Privileged and Confidential

Subcontract Chain of Custody

SAMPLING STATE: **Texas** **COC ID: 26927**

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
	Fluoride by ISE 4500. EQuis EDD			19 Sep 2024
10.	**HS24090586-10**	**MW-28R**	**Water**	**12 Sep 2024 08:45**
	Fluoride by ISE 4500. EQuis EDD			19 Sep 2024
11.	**HS24090586-11**	**MW-47**	**Water**	**12 Sep 2024 10:45**
	Fluoride by ISE 4500. EQuis EDD			19 Sep 2024
12.	**HS24090586-12**	**MW-48**	**Water**	**12 Sep 2024 09:30**
	Fluoride by ISE 4500. EQuis EDD			19 Sep 2024
13.	**HS24090586-13**	**MW-49**	**Water**	**12 Sep 2024 08:40**
	Fluoride by ISE 4500. EQuis EDD			19 Sep 2024
14.	**HS24090586-14**	**MW-50**	**Water**	**12 Sep 2024 10:20**
	Fluoride by ISE 4500. EQuis EDD			19 Sep 2024
15.	**HS24090586-15**	**DUP-01**	**Water**	**12 Sep 2024 09:15**
	Fluoride by ISE 4500. EQuis EDD			19 Sep 2024
16.	**HS24090586-16**	**FB-01**	**Water**	**12 Sep 2024 08:50**
	Fluoride by ISE 4500. EQuis EDD			19 Sep 2024

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

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

Relinquished By: _____ Date/Time: 9/16/24 1700

Received By: _____ Date/Time: 9-18-24 1030

Cooler ID(s): _____ Temperature(s): 5.2 C/F2

ALS Group, USA
Holland, Michigan

Sample Receipt Checklist

Client Name: **ALS - HOUSTON** Date/Time Received: **18-Sep-24 10:30**

Work Order: **24090532** Received by: **JD**

Checklist completed by Jason Delinger (eSignature) 18-Sep-24 (Date) Reviewed by: Chelsey Cook (eSignature) 18-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):	5.2/5.2 c	df2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	9/18/2024 3:52:57 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

October 30, 2024

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

Work Order: **HS24101544**

Laboratory Results for: **NRG Limestone- Appendic III Resample**

Dear Lori Burris,

ALS Environmental received 1 sample(s) on Oct 24, 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:	NRG Limestone- Appendic III Resample	
WorkOrder:	**HS24101544**	

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:	NRG Limestone- Appendic III Resample	
WorkOrder:	**HS24101544**	

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: 10/30/2024					
Project Name: NRG Limestone- Appendic III Resample			Laboratory Job Number: HS24101544					
Reviewer Name: Andy Neir			Prep Batch Number(s): 219671					
#[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: 10/30/2024				
Project Name: NRG Limestone- Appendic III Resample			Laboratory Job Number: HS24101544				
Reviewer Name: Andy Neir			Prep Batch Number(s): 219671				
#[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				
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			2
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: 10/30/2024
Project Name: NRG Limestone- Appendic III Resample	Laboratory Job Number: HS24101544
Reviewer Name: Andy Neir	Prep Batch Number(s): 219671

ER#[5]	Description
1	Batch 219671, Metals Method SW6020, samples HS24101489-10/HS24101489-04, MS and MSD were performed on unrelated samples
2	Batch 219671, Metals Method SW6020, sample HS24101489-04, Serial Dilution was performed on 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).

Client: TRC
Project: NRG Limestone- Appendic III Resample
Work Order: HS24101544

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24101544-01	MW-21	Water		24-Oct-2024 08:35	24-Oct-2024 11:36	☐

Client: TRC
Project: NRG Limestone- Appendic III Resample
Sample ID: MW-21
Collection Date: 24-Oct-2024 08:35

ANALYTICAL REPORT
WorkOrder:HS24101544
Lab ID:HS24101544-01
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A	**Method:SW6020A**				Prep:SW3010A / 28-Oct-2024		Analyst: JC
Boron	**0.656**		**0.0110**	**0.0200**	**mg/L**	1	30-Oct-2024 15:49
Calcium	**48.3**		**0.0340**	**0.500**	**mg/L**	1	30-Oct-2024 15:49

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

Privileged and Confidential

Weight / Prep Log

Client: TRC
Project: NRG Limestone- Appendic III Resample
WorkOrder: HS24101544

Batch ID: 219671 **Start Date:** 28 Oct 2024 08:30 **End Date:** 28 Oct 2024 08:30
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24101544-01		10 (mL)	10 (mL)	1	250 mL plastic, HNO3 to pH <2

Client: TRC
Project: NRG Limestone- Appendic III Resample
WorkOrder: HS24101544

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 219671 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS24101544-01	MW-21	24 Oct 2024 08:35		28 Oct 2024 08:30	30 Oct 2024 15:49	1

WorkOrder: HS24101544
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	0.00584	0.0110	0.0200
A	Calcium	7440-70-2	0.0500	0.130	0.0340	0.500

Client: TRC
Project: NRG Limestone- Appendic III Resample
WorkOrder: HS24101544

QC BATCH REPORT

Batch ID: 219671 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MBLK Sample ID: **MBLK-219671** Units: **mg/L** Analysis Date: **30-Oct-2024 14:31**
Client ID: Run ID: **ICPMS06_498622** SeqNo: **8487204** PrepDate: **28-Oct-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-219671** Units: **mg/L** Analysis Date: **30-Oct-2024 14:33**
Client ID: Run ID: **ICPMS06_498622** SeqNo: **8487205** PrepDate: **28-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4707	0.0200	0.5	0	94.1	80 - 120				
Calcium	4.935	0.500	5	0	98.7	80 - 120				

MS Sample ID: **HS24101489-10MS** Units: **mg/L** Analysis Date: **30-Oct-2024 15:01**
Client ID: Run ID: **ICPMS06_498622** SeqNo: **8487218** PrepDate: **28-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5401	0.0200	0.5	0.04691	98.6	80 - 120				
Calcium	98.11	0.500	5	84.46	273	80 - 120				SO

MS Sample ID: **HS24101489-04MS** Units: **mg/L** Analysis Date: **30-Oct-2024 14:39**
Client ID: Run ID: **ICPMS06_498622** SeqNo: **8487208** PrepDate: **28-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5187	0.0200	0.5	0.03326	97.1	80 - 120				
Calcium	14.75	0.500	5	8.632	122	80 - 120				S

MSD Sample ID: **HS24101489-10MSD** Units: **mg/L** Analysis Date: **30-Oct-2024 15:03**
Client ID: Run ID: **ICPMS06_498622** SeqNo: **8487219** PrepDate: **28-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.528	0.0200	0.5	0.04691	96.2	80 - 120	0.5401	2.27	20	
Calcium	97.65	0.500	5	84.46	264	80 - 120	98.11	0.469	20	SO

Client: TRC
Project: NRG Limestone- Appendic III Resample
WorkOrder: HS24101544

QC BATCH REPORT

Batch ID: 219671 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MSD Sample ID: **HS24101489-04MSD** Units: **mg/L** Analysis Date: **30-Oct-2024 14:41**
Client ID: Run ID: **ICPMS06_498622** SeqNo: **8487209** PrepDate: **28-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.5182	0.0200	0.5	0.03326	97.0	80 - 120	0.5187	0.0978	20	
Calcium	14.64	0.500	5	8.632	120	80 - 120	14.75	0.747	20	S

PDS Sample ID: **HS24101489-10PDS** Units: **mg/L** Analysis Date: **30-Oct-2024 15:05**
Client ID: Run ID: **ICPMS06_498622** SeqNo: **8487220** PrepDate: **28-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.291	0.0200	0.25	0.04691	97.6	75 - 125				
Calcium	95.42	0.500	10	84.46	110	75 - 125				O

PDS Sample ID: **HS24101489-04PDS** Units: **mg/L** Analysis Date: **30-Oct-2024 14:43**
Client ID: Run ID: **ICPMS06_498622** SeqNo: **8487210** PrepDate: **28-Oct-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4387	0.0200	0.5	0.03326	81.1	75 - 125				
Calcium	18.77	0.500	10	8.632	101	75 - 125				

SD Sample ID: **HS24101489-10SD** Units: **mg/L** Analysis Date: **30-Oct-2024 14:57**
Client ID: Run ID: **ICPMS06_498622** SeqNo: **8487216** PrepDate: **28-Oct-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Boron	< 0.0550	0.100					0.04691	0	10	
Calcium	83.38	2.50					84.46	1.28	10	

SD Sample ID: **HS24101489-04SD** Units: **mg/L** Analysis Date: **30-Oct-2024 14:35**
Client ID: Run ID: **ICPMS06_498622** SeqNo: **8487206** PrepDate: **28-Oct-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Boron	< 0.0550	0.100					0.03326	0	10	
Calcium	9.572	2.50					8.632	10.9	10	R

The following samples were analyzed in this batch: HS24101544-01

Client: TRC
Project: NRG Limestone- Appendic III Resample
WorkOrder: **HS24101544**

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: HS24101544 **Date/Time Received:** **24-Oct-2024 11:36**

Client Name: TRC-HOU **Received by:** **Si Ma**

Completed By:	/S/ Travis Appling	24-Oct-2024 12:48	**Reviewed by:**	/S/ Alexis Dorenbosch	24-Oct-2024 14:10
	eSignature	Date/Time		eSignature	Date/Time

Matrices: 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	☐		
Chain of custody signed when relinquished and received?	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?	Yes	☑	No	☐		

Temperature(s)/Thermometer(s):	3.1UC/ 3.1C	IR36
Cooler(s)/Kit(s):	52899	
Date/Time sample(s) sent to storage:	10/24/2024 12:50	

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:

☑ 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

☐ ALS Laboratory Group
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

ALS Project Manager:		Work Order #:	

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	211385	Project Name	NRG Limestone- Appendic III Resample	A	ICP_TW (B) (App III))
Work Order		Project Number	528473.0000.0000	B	300_W (SO4)
Company Name	TRC Corporation	Bill To Company	TRC	C	
Send Report To	Lori Burris	Invoice Attn.	A/P	D	
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	

HS24101544
TRC
NRG Limestone- Appendic III Resample

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-21	10-24-24	835	Water	2,8	1	X										
2	~~MW-50~~			~~Water~~	~~2,8~~	~~2~~	~~X~~	~~X~~	not sampled - CSS								
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign
Cody Springer

Shipment Method: Consultant Dropoff

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:
Cody Springer	10-24-24	1136	
Relinquished by:	Date:	Time:	Received by (Laboratory): SM 10/24/24 11:36
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: NRG Limestone PRIVILEGED & CONFIDENTIAL

Cooler Temp. 3.1

QC Package: (Check Box Below)

	Level II: Standard QC	X	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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Lab# 452899 2RM36 CFO.0

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

CUSTODY SEAL

Date: 10-24-24 Time:

Name: Cody Springer

Company: HMI for TRC

Seal Broken By:

Date:

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

October 11, 2024

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

Work Order: **HS24090620**

Laboratory Results for: **NRG Limestone- Appendix IV**

Dear Lori Burris,

ALS Environmental received 4 sample(s) on Sep 12, 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:	NRG Limestone- Appendix IV	
WorkOrder:	**HS24090620**	

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:	NRG Limestone- Appendix IV	
WorkOrder:	**HS24090620**	

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: NRG Limestone- Appendix IV			Laboratory Job Number: HS24090620					
Reviewer Name: Andy Neir			Prep Batch Number(s): 217720,218266,R477933,R479563					
#[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: 10/11/2024				
Project Name: NRG Limestone- Appendix IV			Laboratory Job Number: HS24090620				
Reviewer Name: Andy Neir			Prep Batch Number(s): 217720,218266,R477933,R479563				
#[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: 10/11/2024
Project Name: NRG Limestone- Appendix IV	Laboratory Job Number: HS24090620
Reviewer Name: Andy Neir	Prep Batch Number(s): 217720,218266,R477933,R479563

ER#[5]	Description
1	Batch 218266, Metals Method SW6020, sample MW-48, MS and MSD recovered outside the control limit for Thallium due to suspect matrix effect
2	The analysis for Fluoride was subcontracted to ALS Environmental in Holland, Report and Laboratory Review Checklist are attached to the final report The analyses for Combined RA226/228 Value & the 2 Individual were subcontracted to GEL Laboratories in Charleston, SC. Final report attached.
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: NRG Limestone- Appendix IV
WorkOrder: HS24090620
Start Date: 30-Sep-2024 End Date: 01-Oct-2024

Run ID:ICPMS06_478526
Instrument:ICPMS06
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
LLICV5	1	30-Sep-2024 12:11	021LCV5.d	AS BA BE CD CO CR LI MO PB SB SE TL
LLICV2	1	30-Sep-2024 12:13	022LCV2.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICB	1	30-Sep-2024 12:15	023_ICB.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICV	1	30-Sep-2024 12:24	026_ICV.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICSA	1	30-Sep-2024 12:26	027ICSA.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICSAB	1	30-Sep-2024 12:28	028ICSB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 1	1	30-Sep-2024 12:35	031_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 1	1	30-Sep-2024 12:37	032_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 2	1	30-Sep-2024 12:58	043_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 2	1	30-Sep-2024 13:00	044_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 3	1	30-Sep-2024 13:23	047_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 3	1	30-Sep-2024 13:25	048_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 4	1	30-Sep-2024 13:50	059_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 4	1	30-Sep-2024 13:52	060_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 5	1	30-Sep-2024 14:35	068_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 5	1	30-Sep-2024 14:37	069_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 6	1	30-Sep-2024 15:06	080_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 6	1	30-Sep-2024 15:08	081_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 7	1	30-Sep-2024 15:39	092_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 7	1	30-Sep-2024 15:41	093_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 8	1	30-Sep-2024 16:09	102_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 8	1	30-Sep-2024 16:11	103_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 9	1	30-Sep-2024 16:21	106_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 9	1	30-Sep-2024 16:23	107_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 10	1	30-Sep-2024 16:52	118_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 10	1	30-Sep-2024 16:54	119_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 11	1	30-Sep-2024 19:54	125_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 11	1	30-Sep-2024 19:55	126_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 12	1	30-Sep-2024 20:15	136_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 12	1	30-Sep-2024 20:17	137_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 13	1	30-Sep-2024 20:31	144_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 13	1	30-Sep-2024 20:33	145_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 14	1	30-Sep-2024 20:45	151_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 14	1	30-Sep-2024 20:46	152_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 15	1	30-Sep-2024 21:09	163_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 15	1	30-Sep-2024 21:11	164_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 16	1	30-Sep-2024 21:23	170_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 16	1	30-Sep-2024 21:25	171_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICCV 17	1	30-Sep-2024 22:36	204_ICV.d	AS BA BE CD CO CR LI MO PB SB SE TL
LLCCV5	1	30-Sep-2024 22:38	205LCV5.d	AS BA BE CD CO CR LI MO PB SB SE TL
LLCCV2	1	30-Sep-2024 22:40	206LCV2.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICCB 17	1	30-Sep-2024 22:42	207_ICB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 18	1	30-Sep-2024 22:46	209_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 18	1	30-Sep-2024 22:47	210_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
MBLK-218266	1	30-Sep-2024 22:49	211SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
LCS-218266	1	30-Sep-2024 22:51	212SMPL.d	AS BA BE CD CO CR LI MO PB SB SE
MW-48	1	30-Sep-2024 22:53	213SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-48SD	5	30-Sep-2024 22:55	214SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-48MS	1	30-Sep-2024 22:57	215SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-48MSD	1	30-Sep-2024 22:59	216SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24090620
Start Date: 30-Sep-2024 End Date: 01-Oct-2024

Run ID:ICPMS06_478526
Instrument:ICPMS06
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
MW-48PDS	1	30-Sep-2024 23:01	217SMPL.d	AS BA BE CD CO CR MO PB SB SE TL
CCV 19	1	30-Sep-2024 23:05	219_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 19	1	30-Sep-2024 23:07	220_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-47	1	30-Sep-2024 23:09	221SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-49	1	30-Sep-2024 23:11	222SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
MW-50	1	30-Sep-2024 23:13	223SMPL.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 20	1	30-Sep-2024 23:25	229_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 20	1	30-Sep-2024 23:27	230_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 21	1	30-Sep-2024 23:43	238_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 21	1	30-Sep-2024 23:45	239_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 22	1	01-Oct-2024 00:07	250_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 22	1	01-Oct-2024 00:09	251_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCV 23	1	01-Oct-2024 00:11	252_CCV.d	AS BA BE CD CO CR LI MO PB SB SE TL
CCB 23	1	01-Oct-2024 00:13	253_CCB.d	AS BA BE CD CO CR LI MO PB SB SE TL
LLCCV2	1	01-Oct-2024 00:15	254LCV2.d	AS BA BE CD CO CR LI MO PB SB SE TL
LLCCV5	1	01-Oct-2024 00:17	255LCV5.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICSA	1	01-Oct-2024 00:19	256ICSA.d	AS BA BE CD CO CR LI MO PB SB SE TL
ICSAB	1	01-Oct-2024 00:21	257ICSB.d	AS BA BE CD CO CR LI MO PB SB SE TL

CCB EXCEPTIONS REPORT

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24090620

Run ID:ICPMS06_478526
Instrument:ICPMS06
Method:SW6020A

ICB	Date: 30-Sep-2024 12:15	Seq: 8280781		D/F: 1	Units: ug/L
	Analyte		**Result**	**MDL**	**Report Limit**
	Chromium		0.579	0.4	4
CCB 1	Date: 30-Sep-2024 12:37	Seq: 8280789		D/F: 1	Units: ug/L
	Analyte		**Result**	**MDL**	**Report Limit**
	Thallium		0.244	0.2	2
CCB 6	Date: 30-Sep-2024 15:08	Seq: 8281407		D/F: 1	Units: ug/L
	Analyte		**Result**	**MDL**	**Report Limit**
	Thallium		0.997	0.2	2
CCB 7	Date: 30-Sep-2024 15:41	Seq: 8281419		D/F: 1	Units: ug/L
	Analyte		**Result**	**MDL**	**Report Limit**
	Thallium		0.635	0.2	2
CCB 8	Date: 30-Sep-2024 16:11	Seq: 8281501		D/F: 1	Units: ug/L
	Analyte		**Result**	**MDL**	**Report Limit**
	Thallium		0.584	0.2	2
CCB 9	Date: 30-Sep-2024 16:23	Seq: 8281545		D/F: 1	Units: ug/L
	Analyte		**Result**	**MDL**	**Report Limit**
	Thallium		0.575	0.2	2
CCB 10	Date: 30-Sep-2024 16:54	Seq: 8281582		D/F: 1	Units: ug/L
	Analyte		**Result**	**MDL**	**Report Limit**
	Thallium		0.641	0.2	2
CCB 11	Date: 30-Sep-2024 19:55	Seq: 8281841		D/F: 1	Units: ug/L
	Analyte		**Result**	**MDL**	**Report Limit**
	Thallium		0.611	0.2	2
CCB 12	Date: 30-Sep-2024 20:17	Seq: 8281852		D/F: 1	Units: ug/L
	Analyte		**Result**	**MDL**	**Report Limit**
	Thallium		0.524	0.2	2
CCB 13	Date: 30-Sep-2024 20:33	Seq: 8281860		D/F: 1	Units: ug/L
	Analyte		**Result**	**MDL**	**Report Limit**
	Thallium		0.549	0.2	2
CCB 14	Date: 30-Sep-2024 20:46	Seq: 8281867		D/F: 1	Units: ug/L
	Analyte		**Result**	**MDL**	**Report Limit**
	Thallium		0.581	0.2	2
CCB 15	Date: 30-Sep-2024 21:11	Seq: 8281898		D/F: 1	Units: ug/L
	Analyte		**Result**	**MDL**	**Report Limit**
	Thallium		0.573	0.2	2
CCB 16	Date: 30-Sep-2024 21:25	Seq: 8281905		D/F: 1	Units: ug/L
	Analyte		**Result**	**MDL**	**Report Limit**
	Thallium		0.615	0.2	2
CCB 18	Date: 30-Sep-2024 22:47	Seq: 8281921		D/F: 1	Units: ug/L
	Analyte		**Result**	**MDL**	**Report Limit**

CCB EXCEPTIONS REPORT

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24090620

Run ID:ICPMS06_478526
Instrument:ICPMS06
Method:SW6020A

	Thallium	0.44	0.2	2	
CCB 19	Date: 30-Sep-2024 23:07	Seq: 8281931	D/F: 1	Units: ug/L	
	Analyte	**Result**	**MDL**	**Report Limit**	
	Thallium	0.484	0.2	2	
CCB 20	Date: 30-Sep-2024 23:27	Seq: 8281941	D/F: 1	Units: ug/L	
	Analyte	**Result**	**MDL**	**Report Limit**	
	Thallium	0.377	0.2	2	
CCB 21	Date: 30-Sep-2024 23:45	Seq: 8282093	D/F: 1	Units: ug/L	
	Analyte	**Result**	**MDL**	**Report Limit**	
	Thallium	0.265	0.2	2	
CCB 22	Date: 01-Oct-2024 00:09	Seq: 8282078	D/F: 1	Units: ug/L	
	Analyte	**Result**	**MDL**	**Report Limit**	
	Thallium	0.311	0.2	2	
CCB 23	Date: 01-Oct-2024 00:13	Seq: 8282080	D/F: 1	Units: ug/L	
	Analyte	**Result**	**MDL**	**Report Limit**	
	Thallium	0.345	0.2	2	

Client: TRC
Project: NRG Limestone- Appendix IV
Work Order: HS24090620

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24090620-01	MW-47	Water		12-Sep-2024 10:45	12-Sep-2024 14:25	☐
HS24090620-02	MW-48	Water		12-Sep-2024 09:30	12-Sep-2024 14:25	☐
HS24090620-03	MW-49	Water		12-Sep-2024 08:40	12-Sep-2024 14:25	☐
HS24090620-04	MW-50	Water		12-Sep-2024 10:20	12-Sep-2024 14:25	☐

Client: TRC
Project: NRG Limestone- Appendix IV
Sample ID: MW-47
Collection Date: 12-Sep-2024 10:45

ANALYTICAL REPORT
WorkOrder:HS24090620
Lab ID:HS24090620-01
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 30-Sep-2024		Analyst: JC
Antimony	< 0.000400		0.000400	0.00200	mg/L	1	30-Sep-2024 23:09
Arsenic	**0.00362**		**0.000400**	**0.00200**	**mg/L**	1	30-Sep-2024 23:09
Barium	**0.130**		**0.00190**	**0.00400**	**mg/L**	1	30-Sep-2024 23:09
Beryllium	< 0.000200		0.000200	0.00200	mg/L	1	30-Sep-2024 23:09
Cadmium	< 0.000200		0.000200	0.00200	mg/L	1	30-Sep-2024 23:09
Chromium	**0.000960**	J	**0.000400**	**0.00400**	**mg/L**	1	30-Sep-2024 23:09
Cobalt	**0.000826**	J	**0.000200**	**0.00500**	**mg/L**	1	30-Sep-2024 23:09
Lead	< 0.000600		0.000600	0.00200	mg/L	1	30-Sep-2024 23:09
Lithium	**0.0135**		**0.00100**	**0.00500**	**mg/L**	1	30-Sep-2024 23:09
Molybdenum	**0.00163**	J	**0.000600**	**0.00500**	**mg/L**	1	30-Sep-2024 23:09
Selenium	< 0.00110		0.00110	0.00200	mg/L	1	30-Sep-2024 23:09
Thallium	< 0.000200		0.000200	0.00200	mg/L	1	30-Sep-2024 23:09
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 18-Sep-2024		Analyst: JS
Mercury	< 0.0000300		0.0000300	0.000200	mg/L	1	18-Sep-2024 17:16
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	24-Sep-2024 13:03
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	10-Oct-2024 13:53
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	10-Oct-2024 13:53

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

Client: TRC
Project: NRG Limestone- Appendix IV
Sample ID: MW-48
Collection Date: 12-Sep-2024 09:30

ANALYTICAL REPORT
WorkOrder:HS24090620
Lab ID:HS24090620-02
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 30-Sep-2024		Analyst: JC
Antimony	< 0.000400		0.000400	0.00200	mg/L	1	30-Sep-2024 22:53
Arsenic	**0.00245**		**0.000400**	**0.00200**	**mg/L**	1	30-Sep-2024 22:53
Barium	**0.0286**		**0.00190**	**0.00400**	**mg/L**	1	30-Sep-2024 22:53
Beryllium	< 0.000200		0.000200	0.00200	mg/L	1	30-Sep-2024 22:53
Cadmium	< 0.000200		0.000200	0.00200	mg/L	1	30-Sep-2024 22:53
Chromium	**0.000751**	J	**0.000400**	**0.00400**	**mg/L**	1	30-Sep-2024 22:53
Cobalt	**0.000562**	J	**0.000200**	**0.00500**	**mg/L**	1	30-Sep-2024 22:53
Lead	< 0.000600		0.000600	0.00200	mg/L	1	30-Sep-2024 22:53
Lithium	**0.00908**		**0.00100**	**0.00500**	**mg/L**	1	30-Sep-2024 22:53
Molybdenum	**0.000890**	J	**0.000600**	**0.00500**	**mg/L**	1	30-Sep-2024 22:53
Selenium	**0.00295**		**0.00110**	**0.00200**	**mg/L**	1	30-Sep-2024 22:53
Thallium	**0.000513**	J	**0.000200**	**0.00200**	**mg/L**	1	30-Sep-2024 22:53
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 18-Sep-2024		Analyst: JS
Mercury	< 0.0000300		0.0000300	0.000200	mg/L	1	18-Sep-2024 17:18
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	24-Sep-2024 13:03
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	10-Oct-2024 13:53
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	10-Oct-2024 13:53

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix IV
Sample ID: MW-49
Collection Date: 12-Sep-2024 08:40

ANALYTICAL REPORT
WorkOrder:HS24090620
Lab ID:HS24090620-03
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 30-Sep-2024		Analyst: JC
Antimony	< 0.000400		0.000400	0.00200	mg/L	1	30-Sep-2024 23:11
Arsenic	**0.0195**		**0.000400**	**0.00200**	**mg/L**	1	30-Sep-2024 23:11
Barium	**1.10**		**0.00190**	**0.00400**	**mg/L**	1	30-Sep-2024 23:11
Beryllium	< 0.000200		0.000200	0.00200	mg/L	1	30-Sep-2024 23:11
Cadmium	< 0.000200		0.000200	0.00200	mg/L	1	30-Sep-2024 23:11
Chromium	**0.000809**	J	**0.000400**	**0.00400**	**mg/L**	1	30-Sep-2024 23:11
Cobalt	**0.0403**		**0.000200**	**0.00500**	**mg/L**	1	30-Sep-2024 23:11
Lead	< 0.000600		0.000600	0.00200	mg/L	1	30-Sep-2024 23:11
Lithium	**0.00211**	J	**0.00100**	**0.00500**	**mg/L**	1	30-Sep-2024 23:11
Molybdenum	**0.000780**	J	**0.000600**	**0.00500**	**mg/L**	1	30-Sep-2024 23:11
Selenium	< 0.00110		0.00110	0.00200	mg/L	1	30-Sep-2024 23:11
Thallium	< 0.000200		0.000200	0.00200	mg/L	1	30-Sep-2024 23:11
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 18-Sep-2024		Analyst: JS
Mercury	< 0.0000300		0.0000300	0.000200	mg/L	1	18-Sep-2024 17:23
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	24-Sep-2024 13:03
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	10-Oct-2024 13:53
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	10-Oct-2024 13:53

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

Client: TRC
Project: NRG Limestone- Appendix IV
Sample ID: MW-50
Collection Date: 12-Sep-2024 10:20

ANALYTICAL REPORT
WorkOrder:HS24090620
Lab ID:HS24090620-04
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 30-Sep-2024		Analyst: JC
Antimony	< 0.000400		0.000400	0.00200	mg/L	1	30-Sep-2024 23:13
Arsenic	**0.000769**	J	**0.000400**	**0.00200**	**mg/L**	1	30-Sep-2024 23:13
Barium	**0.0176**		**0.00190**	**0.00400**	**mg/L**	1	30-Sep-2024 23:13
Beryllium	< 0.000200		0.000200	0.00200	mg/L	1	30-Sep-2024 23:13
Cadmium	**0.000283**	J	**0.000200**	**0.00200**	**mg/L**	1	30-Sep-2024 23:13
Chromium	**0.000918**	J	**0.000400**	**0.00400**	**mg/L**	1	30-Sep-2024 23:13
Cobalt	**0.00467**	J	**0.000200**	**0.00500**	**mg/L**	1	30-Sep-2024 23:13
Lead	< 0.000600		0.000600	0.00200	mg/L	1	30-Sep-2024 23:13
Lithium	**0.0195**		**0.00100**	**0.00500**	**mg/L**	1	30-Sep-2024 23:13
Molybdenum	< 0.000600		0.000600	0.00500	mg/L	1	30-Sep-2024 23:13
Selenium	< 0.00110		0.00110	0.00200	mg/L	1	30-Sep-2024 23:13
Thallium	< 0.000200		0.000200	0.00200	mg/L	1	30-Sep-2024 23:13
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 18-Sep-2024		Analyst: JS
Mercury	< 0.0000300		0.0000300	0.000200	mg/L	1	18-Sep-2024 17:25
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	24-Sep-2024 13:03
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	10-Oct-2024 13:53
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	10-Oct-2024 13:53

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

Weight / Prep Log

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24090620

Batch ID: 217720 **Start Date:** 18 Sep 2024 10:30 **End Date:** 18 Sep 2024 10:30
Method: MERCURY PREP BY 7470A- WATER **Prep Code:** HG_WPR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24090620-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24090620-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24090620-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24090620-04		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 218266 **Start Date:** 30 Sep 2024 13:44 **End Date:** 30 Sep 2024 13:44
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24090620-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24090620-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24090620-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24090620-04		10 (mL)	10 (mL)	1	120 plastic HNO3

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24090620

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 217720 (0)	**Test Name :** MERCURY BY SW7470A				**Matrix:** Water	
HS24090620-01	MW-47	12 Sep 2024 10:45		18 Sep 2024 10:30	18 Sep 2024 17:16	1
HS24090620-02	MW-48	12 Sep 2024 09:30		18 Sep 2024 10:30	18 Sep 2024 17:18	1
HS24090620-03	MW-49	12 Sep 2024 08:40		18 Sep 2024 10:30	18 Sep 2024 17:23	1
HS24090620-04	MW-50	12 Sep 2024 10:20		18 Sep 2024 10:30	18 Sep 2024 17:25	1
Batch ID: 218266 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS24090620-01	MW-47	12 Sep 2024 10:45		30 Sep 2024 13:44	30 Sep 2024 23:09	1
HS24090620-02	MW-48	12 Sep 2024 09:30		30 Sep 2024 13:44	30 Sep 2024 22:53	1
HS24090620-03	MW-49	12 Sep 2024 08:40		30 Sep 2024 13:44	30 Sep 2024 23:11	1
HS24090620-04	MW-50	12 Sep 2024 10:20		30 Sep 2024 13:44	30 Sep 2024 23:13	1
Batch ID: R477933 (0)	**Test Name :** SUBCONTRACT ANALYSIS - FLOURIDE				**Matrix:** Water	
HS24090620-01	MW-47	12 Sep 2024 10:45			24 Sep 2024 13:03	1
HS24090620-02	MW-48	12 Sep 2024 09:30			24 Sep 2024 13:03	1
HS24090620-03	MW-49	12 Sep 2024 08:40			24 Sep 2024 13:03	1
HS24090620-04	MW-50	12 Sep 2024 10:20			24 Sep 2024 13:03	1
Batch ID: R479563 (0)	**Test Name :** SUBCONTRACT ANALYSIS - RADIUM 228				**Matrix:** Water	
HS24090620-01	MW-47	12 Sep 2024 10:45			10 Oct 2024 13:53	1
HS24090620-01	MW-47	12 Sep 2024 10:45			10 Oct 2024 13:53	1
HS24090620-02	MW-48	12 Sep 2024 09:30			10 Oct 2024 13:53	1
HS24090620-02	MW-48	12 Sep 2024 09:30			10 Oct 2024 13:53	1
HS24090620-03	MW-49	12 Sep 2024 08:40			10 Oct 2024 13:53	1
HS24090620-03	MW-49	12 Sep 2024 08:40			10 Oct 2024 13:53	1
HS24090620-04	MW-50	12 Sep 2024 10:20			10 Oct 2024 13:53	1
HS24090620-04	MW-50	12 Sep 2024 10:20			10 Oct 2024 13:53	1

WorkOrder: HS24090620
InstrumentID: HG04
Test Code: HG_W
Test Number: SW7470A
Test Name: Mercury by SW7470A

METHOD DETECTION / REPORTING LIMITS

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

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Mercury	7439-97-6	0.000100	0.000106	0.0000300	0.000200

WorkOrder: HS24090620
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	Antimony	7440-36-0	0.00125	0.00107	0.000400	0.00200
A	Arsenic	7440-38-2	0.00125	0.000983	0.000400	0.00200
A	Barium	7440-39-3	0.00250	0.00216	0.00190	0.00400
A	Beryllium	7440-41-7	0.000500	0.000466	0.000200	0.00200
A	Cadmium	7440-43-9	0.000500	0.000500	0.000200	0.00200
A	Chromium	7440-47-3	0.00125	0.000760	0.000400	0.00400
A	Cobalt	7440-48-4	0.000500	0.000509	0.000200	0.00500
A	Lead	7439-92-1	0.00125	0.00113	0.000600	0.00200
A	Lithium	7439-93-2	0.00250	0.00213	0.00100	0.00500
A	Molybdenum	7439-98-7	0.00125	0.00111	0.000600	0.00500
A	Selenium	7782-49-2	0.00125	0.00191	0.00110	0.00200
A	Thallium	7440-28-0	0.000500	0.000480	0.000200	0.00200

WorkOrder: HS24090620
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: HS24090620
InstrumentID: Subcontract
Test Code: SUB_RA 226
Test Number: NA
Test Name: Subcontract Analysis - Radium

METHOD DETECTION / REPORTING LIMITS

Matrix: NA **Units:** NA

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

WorkOrder: HS24090620
InstrumentID: Subcontract
Test Code: SUB_RA 228
Test Number: NA
Test Name: Subcontract Analysis - Radium 228

METHOD DETECTION / REPORTING LIMITS

Matrix: NA **Units:** NA

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

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24090620

QC BATCH REPORT

Batch ID: 217720 (0) **Instrument: HG04** **Method: MERCURY BY SW7470A**

MBLK Sample ID: **MBLK-217720** Units: **mg/L** Analysis Date: **18-Sep-2024 16:34**
Client ID: Run ID: **HG04_477505** SeqNo: **8259339** PrepDate: **18-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	< 0.0000300	0.000200								

LCS Sample ID: **LCS-217720** Units: **mg/L** Analysis Date: **18-Sep-2024 16:36**
Client ID: Run ID: **HG04_477505** SeqNo: **8259340** PrepDate: **18-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00447	0.000200	0.005	0	89.4	80 - 120				

MS Sample ID: **HS24090620-02MS** Units: **mg/L** Analysis Date: **18-Sep-2024 17:20**
Client ID: **MW-48** Run ID: **HG04_477505** SeqNo: **8259357** PrepDate: **18-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00488	0.000200	0.005	0.000021	97.2	75 - 125				

MSD Sample ID: **HS24090620-02MSD** Units: **mg/L** Analysis Date: **18-Sep-2024 17:22**
Client ID: **MW-48** Run ID: **HG04_477505** SeqNo: **8259358** PrepDate: **18-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00475	0.000200	0.005	0.000021	94.6	75 - 125	0.00488	2.7	20	

The following samples were analyzed in this batch: HS24090620-01 HS24090620-02 HS24090620-03 HS24090620-04

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24090620

QC BATCH REPORT

Batch ID: 218266 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MBLK Sample ID: **MBLK-218266** Units: **mg/L** Analysis Date: **30-Sep-2024 22:49**
Client ID: Run ID: **ICPMS06_478526** SeqNo: **8281922** PrepDate: **30-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	< 0.000400	0.00200								
Arsenic	< 0.000400	0.00200								
Barium	< 0.00190	0.00400								
Beryllium	< 0.000200	0.00200								
Cadmium	< 0.000200	0.00200								
Chromium	0.001037	0.00400								J
Cobalt	< 0.000200	0.00500								
Lead	< 0.000600	0.00200								
Lithium	< 0.00100	0.00500								
Molybdenum	< 0.000600	0.00500								
Selenium	< 0.00110	0.00200								
Thallium	< 0.000200	0.00200								

LCS Sample ID: **LCS-218266** Units: **mg/L** Analysis Date: **30-Sep-2024 22:51**
Client ID: Run ID: **ICPMS06_478526** SeqNo: **8281923** PrepDate: **30-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.0423	0.00200	0.05	0	84.6	80 - 120				
Arsenic	0.0407	0.00200	0.05	0	81.4	80 - 120				
Barium	0.04228	0.00400	0.05	0	84.6	80 - 120				
Beryllium	0.04018	0.00200	0.05	0	80.4	80 - 120				
Cadmium	0.04081	0.00200	0.05	0	81.6	80 - 120				
Chromium	0.04292	0.00400	0.05	0	85.8	80 - 120				
Cobalt	0.04186	0.00500	0.05	0	83.7	80 - 120				
Lead	0.04209	0.00200	0.05	0	84.2	80 - 120				
Lithium	0.08294	0.00500	0.1	0	82.9	80 - 120				
Molybdenum	0.04162	0.00500	0.05	0	83.2	80 - 120				
Selenium	0.0414	0.00200	0.05	0	82.8	80 - 120				

LCS Sample ID: **LCS-218266** Units: **mg/L** Analysis Date: **01-Oct-2024 12:44**
Client ID: Run ID: **ICPMS06_478656** SeqNo: **8283572** PrepDate: **30-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Thallium	0.04424	0.00200	0.05	0	88.5	80 - 120				

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24090620

QC BATCH REPORT

Batch ID: 218266 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MS Sample ID: **HS24090620-02MS** Units: **mg/L** Analysis Date: **30-Sep-2024 22:57**
Client ID: **MW-48** Run ID: **ICPMS06_478526** SeqNo: **8281926** PrepDate: **30-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.04179	0.00200	0.05	0.000093	83.4	80 - 120				
Arsenic	0.04386	0.00200	0.05	0.002447	82.8	80 - 120				
Barium	0.07001	0.00400	0.05	0.02865	82.7	80 - 120				
Beryllium	0.04068	0.00200	0.05	0.000036	81.3	80 - 120				
Cadmium	0.04033	0.00200	0.05	0.000025	80.6	80 - 120				
Chromium	0.04239	0.00400	0.05	0.000751	83.3	80 - 120				
Cobalt	0.04081	0.00500	0.05	0.000562	80.5	80 - 120				
Lead	0.04141	0.00200	0.05	0.000073	82.7	80 - 120				
Lithium	0.09043	0.00500	0.1	0.009078	81.4	80 - 120				
Molybdenum	0.04159	0.00500	0.05	0.00089	81.4	80 - 120				
Selenium	0.04408	0.00200	0.05	0.002952	82.3	80 - 120				
Thallium	0.03367	0.00200	0.05	0.000513	66.3	80 - 120				S

MSD Sample ID: **HS24090620-02MSD** Units: **mg/L** Analysis Date: **30-Sep-2024 22:59**
Client ID: **MW-48** Run ID: **ICPMS06_478526** SeqNo: **8281927** PrepDate: **30-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.0418	0.00200	0.05	0.000093	83.4	80 - 120	0.04179	0.0287	20	
Arsenic	0.04487	0.00200	0.05	0.002447	84.8	80 - 120	0.04386	2.27	20	
Barium	0.07126	0.00400	0.05	0.02865	85.2	80 - 120	0.07001	1.77	20	
Beryllium	0.04095	0.00200	0.05	0.000036	81.8	80 - 120	0.04068	0.642	20	
Cadmium	0.04081	0.00200	0.05	0.000025	81.6	80 - 120	0.04033	1.18	20	
Chromium	0.04243	0.00400	0.05	0.000751	83.4	80 - 120	0.04239	0.092	20	
Cobalt	0.04108	0.00500	0.05	0.000562	81.0	80 - 120	0.04081	0.647	20	
Lead	0.04223	0.00200	0.05	0.000073	84.3	80 - 120	0.04141	1.96	20	
Lithium	0.09192	0.00500	0.1	0.009078	82.8	80 - 120	0.09043	1.63	20	
Molybdenum	0.04221	0.00500	0.05	0.00089	82.6	80 - 120	0.04159	1.48	20	
Selenium	0.04454	0.00200	0.05	0.002952	83.2	80 - 120	0.04408	1.05	20	
Thallium	0.03493	0.00200	0.05	0.000513	68.8	80 - 120	0.03367	3.68	20	S

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24090620

QC BATCH REPORT

Batch ID: 218266 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

PDS Sample ID: **HS24090620-02PDS** Units: **mg/L** Analysis Date: **30-Sep-2024 23:01**
Client ID: **MW-48** Run ID: **ICPMS06_478526** SeqNo: **8281928** PrepDate: **30-Sep-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.09532	0.00200	0.1	0.000093	95.2	75 - 125				
Arsenic	0.09853	0.00200	0.1	0.002447	96.1	75 - 125				
Barium	0.1239	0.00400	0.1	0.02865	95.3	75 - 125				
Beryllium	0.09183	0.00200	0.1	0.000036	91.8	75 - 125				
Cadmium	0.09268	0.00200	0.1	0.000025	92.7	75 - 125				
Chromium	0.0948	0.00400	0.1	0.000751	94.0	75 - 125				
Cobalt	0.09331	0.00500	0.1	0.000562	92.8	75 - 125				
Lead	0.0964	0.00200	0.1	0.000073	96.3	75 - 125				
Molybdenum	0.09546	0.00500	0.1	0.00089	94.6	75 - 125				
Selenium	0.09939	0.00200	0.1	0.002952	96.4	75 - 125				
Thallium	0.09926	0.00200	0.1	0.000513	98.7	75 - 125				

SD Sample ID: **HS24090620-02SD** Units: **mg/L** Analysis Date: **30-Sep-2024 22:55**
Client ID: **MW-48** Run ID: **ICPMS06_478526** SeqNo: **8281925** PrepDate: **30-Sep-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Antimony	< 0.00200	0.0100					0.000093	0	10	
Arsenic	0.002856	0.0100					0.002447	0	10	J
Barium	0.02932	0.0200					0.02865	2.33	10	
Beryllium	< 0.00100	0.0100					0.000036	0	10	
Cadmium	< 0.00100	0.0100					0.000025	0	10	
Chromium	< 0.00200	0.0200					0.000751	0	10	
Cobalt	< 0.00100	0.0250					0.000562	0	10	
Lead	< 0.00300	0.0100					0.000073	0	10	
Lithium	0.009511	0.0250					0.009078	0	10	J
Molybdenum	< 0.00300	0.0250					0.00089	0	10	
Selenium	< 0.00550	0.0100					0.002952	0	10	
Thallium	< 0.00100	0.0100					0.000513	0	10	

The following samples were analyzed in this batch: HS24090620-01 HS24090620-02 HS24090620-03 HS24090620-04

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: **HS24090620**

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: HS24090620 **Date/Time Received:** **12-Sep-2024 14:25**

Client Name: TRC-HOU **Received by:** **Si Ma**

Completed By:	/S/ Kaycee Rogers	12-Sep-2024 21:26	**Reviewed by:**	/S/ Alexis Dorenbosch	13-Sep-2024 12:31
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **W** 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 ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:321999
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?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.5UC/3.5C		IR 35
Cooler(s)/Kit(s):	BLUE		
Date/Time sample(s) sent to storage:	09/12/2024 2126		
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:

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: 321999

HS24090620

WV

TRC

NRG Limestone- Appendix IV

ALS Project Manager:

Customer Information		Project Information			
Purchase Order	211385	Project Name	NRG Limestone- Appendix IV	A	ICP_TW (Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl)
Work Order		Project Number		B	HG_W (Mercury)
Company Name	TRC Corporation	Bill To Company	TRC	C	SUB_RA 226 (Sub RA 226 to GEL)
Send Report To	Lori Burris	Invoice Attn	A/P	D	SUB_RA 228 (Sub RA 228 to GEL)
Address	14701 St. Mary's Lane Suite 500	Address	14701 St. Mary's Lane Suite 500	E	Sub_Fluoride (Report from Appendix III COC)
				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-47	9-12-24	1045	Water	2,8	4	X	X	X	X	X						
2	MW-48		930	Water	2,8	4	X	X	X	X	X						
3	MW-49		840	Water	2,8	4	X	X	X	X	X						
4	MW-50		1020	Water	2,8	4	X	X	X	X	X						
5	~~MW-2 MS~~ MDB ~~MW-48 (MS) MDB~~		~~845~~ MDB	Water	2,8	4	X	X	X	X	X						
6	~~MW-2 MSD~~ MDB ~~MW-48 (MSD) MDB~~		~~845~~ MDB	Water	2,8	4	X	X	X	X	X						
7	MW-48 (MS)		930	W	2,8	4	X	X	X	X	X						
8	MW-48 (MSD)		930	W	2,8	4	X	X	X	X	X						
9																	
10																	

Sampler(s) Please Print & Sign: Mason Bond + 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:	Time:	Received by:
Isaias Sedillo	9-12-24	1425	
Relinquished by:	Date:	Time:	Received by (Laboratory): GM 09/12/24 1425
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: NRG Limestone PRIVILEGED & CONFIDENTIAL

Cooler ID	Cooler Temp.
BMW	3.5

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

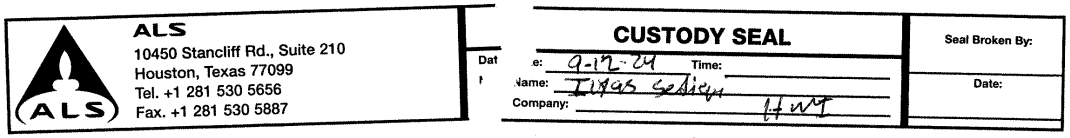
Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

2nm 39 CF0-0

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.

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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
Seal Broken By:
Date:
Time:
Name:
Company:
9-12-24
Date:

9-12-24

24-Sep-2024

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

Re: **HS24090620** Work Order: **24090530**

Dear Andrew,

ALS Environmental received 4 samples on 18-Sep-2024 10:30 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 14.

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

Client: ALS Environmental
Project: HS24090620
Work Order: **24090530**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
24090530-01	MW-47	Water	HS24090620-01	9/12/2024 10:45	9/18/2024 10:30	☐
24090530-02	MW-48	Water	HS24090620-02	9/12/2024 09:30	9/18/2024 10:30	☐
24090530-03	MW-49	Water	HS24090620-03	9/12/2024 08:40	9/18/2024 10:30	☐
24090530-04	MW-50	Water	HS24090620-04	9/12/2024 10:20	9/18/2024 10:30	☐

WET CHEMISTRY DATA ASSESSMENT CHECKLIST

Wet Chemistry	Batch Number: TITRATOR1_240919C	Instrument ID: TITRATOR1	
Method: FL_4500C_W	Work order Number (s): 24090530		
Analyst Name: DHL	Date: 09/19/2024	Reviewer Name: JB	Date:

	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: HS24090620
WorkOrder: **24090530**

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:	HS24090620
Work Order:	24090530

Case Narrative

Samples for the above noted Work Order were received on 09/18/2024. 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.

Privileged and Confidential

ALS Group, USA

Date: *24-Sep-2024*

Client:	ALS Environmental		
Project:	HS24090620	**Work Order:**	24090530
Sample ID:	MW-47	**Lab ID:**	24090530-01
Collection Date:	9/12/2024 10:45 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **DYL**
Fluoride	**0.210**		**0.10**	**mg/L**	1	9/19/2024 03:27 AM

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

Client:	ALS Environmental		
Project:	HS24090620	**Work Order:**	24090530
Sample ID:	MW-48	**Lab ID:**	24090530-02
Collection Date:	9/12/2024 09:30 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **DYL**
Fluoride	**0.190**		**0.10**	**mg/L**	1	9/19/2024 03:27 AM

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

Client:	ALS Environmental		
Project:	HS24090620	**Work Order:**	24090530
Sample ID:	MW-49	**Lab ID:**	24090530-03
Collection Date:	9/12/2024 08:40 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **DYL**
Fluoride	ND		0.10	mg/L	1	9/19/2024 03:27 AM

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

Client:	ALS Environmental		
Project:	HS24090620	**Work Order:**	24090530
Sample ID:	MW-50	**Lab ID:**	24090530-04
Collection Date:	9/12/2024 10:20 AM	**Matrix:**	WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
FLUORIDE			**A4500-F C-11**			Analyst: **DYL**
Fluoride	ND		0.10	mg/L	1	9/19/2024 03:27 AM

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

Batch ID: **R411828** Instrument ID **Titrator 1** Method: **A4500-F C-11**

MBLK Sample ID: **MB-R411828-R411828** Units: **mg/L** Analysis Date: **9/19/2024 03:27 AM**
Client ID: Run ID: **TITRATOR 1_240919C** SeqNo: **11130968** 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-R411828-R411828** Units: **mg/L** Analysis Date: **9/19/2024 03:27 AM**
Client ID: Run ID: **TITRATOR 1_240919C** SeqNo: **11130969** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.13	0.10	5	0	103	90-111	0			

MS Sample ID: **24090530-01A MS** Units: **mg/L** Analysis Date: **9/19/2024 03:27 AM**
Client ID: **MW-47** Run ID: **TITRATOR 1_240919C** SeqNo: **11130971** 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	0.21	104	90-111	0			

MSD Sample ID: **24090530-01A MSD** Units: **mg/L** Analysis Date: **9/19/2024 03:27 AM**
Client ID: **MW-47** Run ID: **TITRATOR 1_240919C** SeqNo: **11130972** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.48	0.10	5	0.21	105	90-111	5.41	1.29	20	

The following samples were analyzed in this batch:

24090530-01A	24090530-02A	24090530-03A
24090530-04A		

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

24090530

ALS - HOUSTON: ALS Environmental
Project: HS24090620

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:** **26935**

SUBCONTRACT TO:

ALS Group USA, Corp.
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:	HS24090620
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS24090620-01**	**MW-47**	**Water**	**12 Sep 2024 10:45**
	Fluoride by ISE 4500. EQuis EDD			19 Sep 2024
2.	**HS24090620-02**	**MW-48**	**Water**	**12 Sep 2024 09:30**
	Fluoride by ISE 4500. EQuis EDD			19 Sep 2024
3.	**HS24090620-03**	**MW-49**	**Water**	**12 Sep 2024 08:40**
	Fluoride by ISE 4500. EQuis EDD			19 Sep 2024
4.	**HS24090620-04**	**MW-50**	**Water**	**12 Sep 2024 10:20**
	Fluoride by ISE 4500. EQuis EDD			19 Sep 2024

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

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

Relinquished By: _____ Date/Time: 9/16/24 1700

Received By: _____ Date/Time: 9-18-24 1030

Cooler ID(s): _____ Temperature(s): 4.8 DF2

ALS Group, USA
Holland, Michigan

Sample Receipt Checklist

Client Name: **ALS - HOUSTON** Date/Time Received: **18-Sep-24 10:30**

Work Order: **24090530** Received by: **JD**

Checklist completed by Jason Delinger (eSignature) 18-Sep-24 (Date) Reviewed by: Chelsey Cook (eSignature) 18-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):	4.8/4.8 C	DF2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	9/18/2024 11:53:52 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:

Privileged and Confidential

GEL Laboratories LLC
a member of The GEL Group INC

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

October 09, 2024

Andy Neir
ALS Houston
10450 Stancliff Rd
Ste 210
Houston, Texas 77099

Re: Houston - Neir L2
Work Order: 686105

Dear Andy Neir:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on September 17, 2024. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4422.

Sincerely,

J H Crook

Jacob Crook
Project Manager

Purchase Order: HS24090620
Chain of Custody: 26934
Enclosures

problem solved

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

Certificate of Analysis

Report Date: October 9, 2024

Company :	ALS Houston
Address :	10450 Stancliff Rd Ste 210 Houston, Texas 77099
Contact:	Andy Neir
Project:	Houston - Neir L2

Client Sample ID:	MW-47	Project:	ALSE01323
Sample ID:	686105001	Client ID:	ALSE001
Matrix:	Water		
Collect Date:	12-SEP-24 10:45		
Receive Date:	17-SEP-24		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting												
GFPC Ra228, Liquid "As Received"												
Radium-228	U	1.98	2.66	3.00	pCi/L			KP1	10/08/24	1325	2674286	1
Radium-226+Radium-228 Calculation "See Parent Products"												
Radium-226+228 Sum		2.90			pCi/L		1	NXL1	10/09/24	1250	2676471	2
Rad Radium-226												
Lucas Cell, Ra226, Liquid "As Received"												
Radium-226		0.915	0.632	1.00	pCi/L			MJ2	10/07/24	1038	2675289	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"			80.4	(15%-125%)

Notes:

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: October 9, 2024

Company :	ALS Houston
Address :	10450 Stancliff Rd Ste 210 Houston, Texas 77099
Contact:	Andy Neir
Project:	Houston - Neir L2

Client Sample ID:	MW-48	Project:	ALSE01323
Sample ID:	686105002	Client ID:	ALSE001
Matrix:	Water		
Collect Date:	12-SEP-24 09:30		
Receive Date:	17-SEP-24		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting												
GFPC Ra228, Liquid "As Received"												
Radium-228		2.53	1.87	3.00	pCi/L			KP1	10/08/24	1213	2674286	1
Radium-226+Radium-228 Calculation "See Parent Products"												
Radium-226+228 Sum		3.59			pCi/L		1	NXL1	10/09/24	1250	2676471	2
Rad Radium-226												
Lucas Cell, Ra226, Liquid "As Received"												
Radium-226		1.07	0.709	1.00	pCi/L			MJ2	10/07/24	1038	2675289	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"			74.3	(15%-125%)

Notes:

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: October 9, 2024

Company :	ALS Houston
Address :	10450 Stancliff Rd Ste 210 Houston, Texas 77099
Contact:	Andy Neir
Project:	Houston - Neir L2

Client Sample ID:	MW-49	Project:	ALSE01323
Sample ID:	686105003	Client ID:	ALSE001
Matrix:	Water		
Collect Date:	12-SEP-24 08:40		
Receive Date:	17-SEP-24		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting												
GFPC Ra228, Liquid "As Received"												
Radium-228	U	1.48	1.55	3.00	pCi/L			KP1	10/08/24	1213	2674286	1
Radium-226+Radium-228 Calculation "See Parent Products"												
Radium-226+228 Sum		3.11			pCi/L		1	NXL1	10/09/24	1250	2676471	2
Rad Radium-226												
Lucas Cell, Ra226, Liquid "As Received"												
Radium-226		1.63	0.833	1.00	pCi/L			MJ2	10/07/24	1038	2675289	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"			80.7	(15%-125%)

Notes:

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: October 9, 2024

Company :	ALS Houston
Address :	10450 Stancliff Rd Ste 210 Houston, Texas 77099
Contact:	Andy Neir
Project:	Houston - Neir L2

Client Sample ID:	MW-50	Project:	ALSE01323
Sample ID:	686105004	Client ID:	ALSE001
Matrix:	Water		
Collect Date:	12-SEP-24 10:20		
Receive Date:	17-SEP-24		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting												
GFPC Ra228, Liquid "As Received"												
Radium-228	U	0.835	1.92	3.00	pCi/L			KP1	10/08/24	1213	2674286	1
Radium-226+Radium-228 Calculation "See Parent Products"												
Radium-226+228 Sum		0.982			pCi/L		1	NXL1	10/09/24	1250	2676471	2
Rad Radium-226												
Lucas Cell, Ra226, Liquid "As Received"												
Radium-226	U	0.147	0.517	1.00	pCi/L			MJ2	10/07/24	1038	2675289	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"			77.9	(15%-125%)

Notes:

Column headers are defined as follows:

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

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

QC Summary

Client : **ALS Houston**
10450 Stancliff Rd
Ste 210
Houston, Texas

Contact: **Andy Neir**

Workorder: **686105**

Report Date: December 3, 2024

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 2674286										
QC1205858852 686105002 DUP										
Radium-228		2.53		2.38	pCi/L	5.87		(0% - 100%)	KP1	10/08/2412:13
	Uncert:	+/-1.30		+/-1.30						
	TPU:	+/-1.45		+/-1.44						
QC1205858853 LCS										
Radium-228	69.6			69.4	pCi/L		99.8	(75%-125%)	KP1	10/08/2412:13
	Uncert:			+/-4.58						
	TPU:			+/-18.3						
QC1205858851 MB										
Radium-228			U	0.524	pCi/L				KP1	10/08/2412:13
	Uncert:			+/-1.40						
	TPU:			+/-1.41						
Rad Ra-226										
Batch 2675289										
QC1205860928 686105002 DUP										
Radium-226		1.07		1.29	pCi/L	19.3		(0% - 100%)	MJ2	10/07/2410:38
	Uncert:	+/-0.615		+/-0.745						
	TPU:	+/-0.639		+/-0.770						
QC1205860931 LCS										
Radium-226	27.3			28.1	pCi/L		103	(75%-125%)	MJ2	10/07/2411:17
	Uncert:			+/-3.06						
	TPU:			+/-6.73						
QC1205860926 MB										
Radium-226			U	0.292	pCi/L				MJ2	10/07/2410:38
	Uncert:			+/-0.418						
	TPU:			+/-0.423						
QC1205860930 686105002 MS										
Radium-226	134	1.07		153	pCi/L		113	(75%-125%)	MJ2	10/07/2410:38
	Uncert:	+/-0.615		+/-16.8						
	TPU:	+/-0.639		+/-28.9						

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

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

QC Summary

Workorder: **686105**

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

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

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

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

Receipt Narrative
for
ALS Environmental
SDG: 686105

October 09, 2024

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample receipt: The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on September 17, 2024 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Sample Identification: The laboratory received the following samples:

Laboratory ID	Client ID
686105001	MW-47
686105002	MW-48
686105003	MW-49
686105004	MW-50

Case Narrative:

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

J W Crook

Jacob Crook
Project Manager

686105

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:** **26934**

SUBCONTRACT TO:

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29407

Phone: +1 843 556 8171

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:	HS24090620
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS24090620-01**	**MW-47**	**Water**	**12 Sep 2024 10:45**
	Report Combined RA 226/228 Value &the 2 Individual			19 Sep 2024
	Report Combined RA 226/228 Value &the 2 Individual			19 Sep 2024
2.	**HS24090620-02**	**MW-48**	**Water**	**12 Sep 2024 09:30**
	Report Combined RA 226/228 Value &the 2 Individual			19 Sep 2024
	Report Combined RA 226/228 Value &the 2 Individual			19 Sep 2024
3.	**HS24090620-03**	**MW-49**	**Water**	**12 Sep 2024 08:40**
	Report Combined RA 226/228 Value &the 2 Individual			19 Sep 2024
	Report Combined RA 226/228 Value &the 2 Individual			19 Sep 2024
4.	**HS24090620-04**	**MW-50**	**Water**	**12 Sep 2024 10:20**
	Report Combined RA 226/228 Value &the 2 Individual			19 Sep 2024
	Report Combined RA 226/228 Value &the 2 Individual			19 Sep 2024

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above.

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

Subcontract Chain of Custody

SAMPLING STATE: Texas

COC ID: 26934

Relinquished By: _____ Date/Time: 9/16/24 1700

Received By: _____ Date/Time: 9/17/24 925

Cooler ID(s): _____ Temperature(s): _____

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: ALSE	SDG/AR/COC/Work Order: 686105
Received By: QG	Date Received: 9/12/24
Carrier and Tracking Number	Circle Applicable: (FedEx Express) FedEx Ground UPS Field Services Courier Other 7386 7926 4157

Suspected Hazard Information	Yes	No	
			*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A)Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#: [redacted] If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___
B) Did the client designate the samples are to be received as radioactive?		✓	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		✓	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 (CPM / mR/Hr) Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?		✓	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		✓	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	✓			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	✓			Preservation Method: (Wet Ice) Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: 0°c
4	~~Daily check performed and passed on IR temperature gun?~~	✓			Temperature Device Serial #: IR1-23 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	~~Samples requiring chemical preservation at proper pH?~~	✓			Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?			✓	If Yes, are Encores or Soil Kits present for solids? Yes___ No___ NA___(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No) Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample ID's and containers affected:
8	Samples received within holding time?	✓			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	✓			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?			✓	Circle Applicable: No container count on COC (Other (describe)) client sent 8 containers for MN-48
12	Are sample containers identifiable as GEL provided by use of GEL labels?			✓	
13	COC form is properly signed in relinquished/received sections?			✓	Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials AM Date 9/18/24 Page 1 of 1

List of current GEL Certifications as of 09 October 2024

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	NV-C24-00175
New Hampshire NELAP	205424
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2023-152
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235
Utah NELAP	SC000122024-41
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Appendix D
Quarterly Background Data (December 2024)

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

January 08, 2025

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

Work Order: **HS24120314**

Laboratory Results for: **NRG Limestone- Appendix III**

Dear Lori Burris,

ALS Environmental received 6 sample(s) on Dec 05, 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: ANDREW.NEIR
Andy C. Neir

Client:	TRC	**TRRP Laboratory Data Package Cover Page**
Project:	NRG Limestone- Appendix III	
WorkOrder:	**HS24120314**	

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:	NRG Limestone- Appendix III	
WorkOrder:	**HS24120314**	

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: 01/06/2025					
Project Name: NRG Limestone- Appendix III			Laboratory Job Number: HS24120314					
Reviewer Name: Andy Neir			Prep Batch Number(s): 221538, 221693, R502007, R502092, R502421, R503795					
#[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: 01/06/2025				
Project Name: NRG Limestone- Appendix III			Laboratory Job Number: HS24120314				
Reviewer Name: Andy Neir			Prep Batch Number(s): 221538, 221693, R502007, R502092, R502421, R503795				
#[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: 01/06/2025
Project Name: NRG Limestone- Appendix III		Laboratory Job Number: HS24120314
Reviewer Name: Andy Neir		Prep Batch Number(s): 221538, 221693, R502007, R502092, R502421, R503795
ER#[5]	**Description**	
1	Batch 221538, Metals by method SW6020, Sample MW-49, MS and/or MSD recovered outside control limits for calcium. For calcium, the results in the parent sample are greater than 4x the spike amount	
2	Analyses of Fluoride were performed by ALS Holland, MI. Report and Laboratory Review Checklist are appended.	
3	See Run Log and CCB Exception Reports	
4	Batch 221538, Metals by method SW6020, Sample MW-49, PDS recovered outside control limits for calcium; however, the results in the parent sample is greater than 4x 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: NRG Limestone- Appendix III
WorkOrder: HS24120314
Start Date: 11-Dec-2024 End Date: 11-Dec-2024

Run ID:HG04_501609
Instrument:HG04
Method:SW7470A

Sample No.	D/F	Time	FileID	Analytes
ICV	1	11-Dec-2024 12:06		HG
ICB	1	11-Dec-2024 12:08		HG
CRA	1	11-Dec-2024 12:09		HG
CCV 1	1	11-Dec-2024 12:13		HG
CCB 1	1	11-Dec-2024 12:15		HG
CCV 2	1	11-Dec-2024 12:34		HG
CCB 2	1	11-Dec-2024 12:36		HG
CCV 3	1	11-Dec-2024 12:50		HG
CCB 3	1	11-Dec-2024 12:53		HG
CCV 4	1	11-Dec-2024 13:15		HG
CCB 4	1	11-Dec-2024 13:16		HG
CCV 5	1	11-Dec-2024 13:37		HG
CCB 5	1	11-Dec-2024 13:38		HG
CCV 6	1	11-Dec-2024 14:01		HG
CCB 6	1	11-Dec-2024 14:03		HG
CCV 7	1	11-Dec-2024 14:27		HG
CCB 7	1	11-Dec-2024 14:28		HG
CCV 8	1	11-Dec-2024 14:37		HG
CCB 8	1	11-Dec-2024 14:38		HG
MBLK-221693	1	11-Dec-2024 14:54		HG
LCS-221693	1	11-Dec-2024 14:57		HG
MW-47	1	11-Dec-2024 15:06		HG
MW-48	1	11-Dec-2024 15:08		HG
MW-49	1	11-Dec-2024 15:09		HG
MW-49MS	1	11-Dec-2024 15:11		HG
CCV 9	1	11-Dec-2024 15:13		HG
CCB 9	1	11-Dec-2024 15:14		HG
MW-49MSD	1	11-Dec-2024 15:16		HG
MW-50	1	11-Dec-2024 15:18		HG
Field Blank	1	11-Dec-2024 15:20		HG
Field Dup	1	11-Dec-2024 15:21		HG
CCV 10	1	11-Dec-2024 15:33		HG
CCB 10	1	11-Dec-2024 15:35		HG
CCV 11	1	11-Dec-2024 15:44		HG
CCB 11	1	11-Dec-2024 15:46		HG
CCV 12	1	11-Dec-2024 16:05		HG
CCB 12	1	11-Dec-2024 16:06		HG
CCV 13	1	11-Dec-2024 16:31		HG
CCB 13	1	11-Dec-2024 16:33		HG
CCV 14	1	11-Dec-2024 16:57		HG
CCB 14	1	11-Dec-2024 16:59		HG
CCV 15	1	11-Dec-2024 17:09		HG
CCB 15	1	11-Dec-2024 17:10		HG
CRA	1	11-Dec-2024 17:12		HG

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24120314
Start Date: 09-Dec-2024 End Date: 09-Dec-2024

Run ID:ICPMS06_501833
Instrument:ICPMS06
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
ICV	1	09-Dec-2024 10:42	019_ICV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
LLICV5	1	09-Dec-2024 10:44	020LCV5.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
LLICV2	1	09-Dec-2024 10:46	021LCV2.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
ICB	1	09-Dec-2024 10:48	022_ICB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
ICSA	1	09-Dec-2024 10:54	024ICSA.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
ICSAB	1	09-Dec-2024 10:56	025ICSB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCV 1	1	09-Dec-2024 11:03	028_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 1	1	09-Dec-2024 11:05	029_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCV 2	1	09-Dec-2024 11:24	039_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 2	1	09-Dec-2024 11:26	040_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCV 3	1	09-Dec-2024 11:48	051_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 3	1	09-Dec-2024 11:50	052_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCV 4	1	09-Dec-2024 12:14	063_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 4	1	09-Dec-2024 12:16	064_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCV 5	1	09-Dec-2024 13:19	067_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 5	1	09-Dec-2024 13:21	068_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCV 6	1	09-Dec-2024 13:46	079_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 6	1	09-Dec-2024 13:48	080_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCV 7	1	09-Dec-2024 13:57	083_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 7	1	09-Dec-2024 13:59	084_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
MBLK-221538	1	09-Dec-2024 14:01	085SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
LCS-221538	1	09-Dec-2024 14:03	086SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE
MW-49	1	09-Dec-2024 14:20	089SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
MW-49MS	1	09-Dec-2024 14:23	090SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
MW-49MSD	1	09-Dec-2024 14:24	091SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
MW-49PDS	1	09-Dec-2024 14:26	092SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE
CCV 8	1	09-Dec-2024 14:37	094_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 8	1	09-Dec-2024 14:39	095_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
LCS-221538	1	09-Dec-2024 14:42	096SMPL.d	TL
MW-49SD	5	09-Dec-2024 14:44	097SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
MW-47	1	09-Dec-2024 14:46	098SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
MW-48	1	09-Dec-2024 14:48	099SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
MW-50	1	09-Dec-2024 14:50	100SMPL.d	AS B BA BE CD CO CR LI MO PB SB SE TL
Field Blank	1	09-Dec-2024 14:52	101SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
Field Dup	1	09-Dec-2024 14:54	102SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
MW-49PDS	1	09-Dec-2024 14:56	103SMPL.d	TL
CCV 9	1	09-Dec-2024 15:05	105_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 9	1	09-Dec-2024 15:07	106_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCV 10	1	09-Dec-2024 15:48	117_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 10	1	09-Dec-2024 15:50	118_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
MW-50	20	09-Dec-2024 15:52	119SMPL.d	CA
CCV 11	1	09-Dec-2024 16:19	129_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 11	1	09-Dec-2024 16:21	130_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCV 12	1	09-Dec-2024 16:50	132_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 12	1	09-Dec-2024 16:52	133_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
LLCCV2	1	09-Dec-2024 16:54	134LCV2.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
LLCCV5	1	09-Dec-2024 16:56	135LCV5.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
ICSA	1	09-Dec-2024 16:58	136ICSA.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
ICSAB	1	09-Dec-2024 17:00	137ICSB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL

Client: TRC
Project: NRG Limestone- Appendix III
Work Order: HS24120314

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24120314-01	MW-47	Water		05-Dec-2024 09:20	05-Dec-2024 14:10	☐
HS24120314-02	MW-48	Water		05-Dec-2024 10:00	05-Dec-2024 14:10	☐
HS24120314-03	MW-49	Water		05-Dec-2024 08:20	05-Dec-2024 14:10	☐
HS24120314-04	MW-50	Water		05-Dec-2024 10:50	05-Dec-2024 14:10	☐
HS24120314-05	Field Blank	Water		05-Dec-2024 10:15	05-Dec-2024 14:10	☐
HS24120314-06	Field Dup	Water		05-Dec-2024 09:00	05-Dec-2024 14:10	☐

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-47
Collection Date: 05-Dec-2024 09:20

ANALYTICAL REPORT
WorkOrder:HS24120314
Lab ID:HS24120314-01
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 07-Dec-2024		Analyst: JC
Boron	**0.0200**		**0.0110**	**0.0200**	**mg/L**	1	09-Dec-2024 14:46
Calcium	**42.0**		**0.0340**	**0.500**	**mg/L**	1	09-Dec-2024 14:46
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**157**		**2.00**	**5.00**	**mg/L**	10	10-Dec-2024 10:41
Sulfate	**48.6**		**2.00**	**5.00**	**mg/L**	10	10-Dec-2024 10:41
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**656**		**5.00**	**10.0**	**mg/L**	1	09-Dec-2024 10:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	16-Dec-2024 12:35

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

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-48
Collection Date: 05-Dec-2024 10:00

ANALYTICAL REPORT
WorkOrder:HS24120314
Lab ID:HS24120314-02
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 07-Dec-2024		Analyst: JC
Boron	**0.0209**		**0.0110**	**0.0200**	**mg/L**	1	09-Dec-2024 14:48
Calcium	**14.9**		**0.0340**	**0.500**	**mg/L**	1	09-Dec-2024 14:48
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**61.1**		**0.400**	**1.00**	**mg/L**	2	10-Dec-2024 10:47
Sulfate	**82.6**		**0.400**	**1.00**	**mg/L**	2	10-Dec-2024 10:47
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**332**		**5.00**	**10.0**	**mg/L**	1	09-Dec-2024 10:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	16-Dec-2024 12:35

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

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-49
Collection Date: 05-Dec-2024 08:20

ANALYTICAL REPORT
WorkOrder:HS24120314
Lab ID:HS24120314-03
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 07-Dec-2024		Analyst: JC
Boron	**0.0459**		**0.0110**	**0.0200**	**mg/L**	1	09-Dec-2024 14:20
Calcium	**94.4**		**0.0340**	**0.500**	**mg/L**	1	09-Dec-2024 14:20
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**255**		**2.00**	**5.00**	**mg/L**	10	10-Dec-2024 10:53
Sulfate	**91.7**		**2.00**	**5.00**	**mg/L**	10	10-Dec-2024 10:53
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**756**		**5.00**	**10.0**	**mg/L**	1	09-Dec-2024 10:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	16-Dec-2024 12:35

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: MW-50
Collection Date: 05-Dec-2024 10:50

ANALYTICAL REPORT
WorkOrder:HS24120314
Lab ID:HS24120314-04
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 07-Dec-2024		Analyst: JC
Boron	**0.723**		**0.0110**	**0.0200**	**mg/L**	1	09-Dec-2024 14:50
Calcium	**282**		**0.680**	**10.0**	**mg/L**	20	09-Dec-2024 15:52
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**101**		**4.00**	**10.0**	**mg/L**	20	10-Dec-2024 10:59
Sulfate	**1,680**		**4.00**	**10.0**	**mg/L**	20	10-Dec-2024 10:59
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**1,800**		**5.00**	**10.0**	**mg/L**	1	09-Dec-2024 10:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	16-Dec-2024 12:35

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

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: Field Blank
Collection Date: 05-Dec-2024 10:15

ANALYTICAL REPORT
WorkOrder:HS24120314
Lab ID:HS24120314-05
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 07-Dec-2024		Analyst: JC
Boron	< 0.0110		0.0110	0.0200	mg/L	1	09-Dec-2024 14:52
Calcium	**0.112**	J	**0.0340**	**0.500**	**mg/L**	1	09-Dec-2024 14:52
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	< 0.200		0.200	0.500	mg/L	1	10-Dec-2024 11:04
Sulfate	< 0.200		0.200	0.500	mg/L	1	10-Dec-2024 11:04
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	< 5.00		5.00	10.0	mg/L	1	09-Dec-2024 10:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	16-Dec-2024 12:35

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

Privileged and Confidential

Client: TRC
Project: NRG Limestone- Appendix III
Sample ID: Field Dup
Collection Date: 05-Dec-2024 09:00

ANALYTICAL REPORT
WorkOrder:HS24120314
Lab ID:HS24120314-06
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 07-Dec-2024		Analyst: JC
Boron	**0.0218**		**0.0110**	**0.0200**	**mg/L**	1	09-Dec-2024 14:54
Calcium	**14.5**		**0.0340**	**0.500**	**mg/L**	1	09-Dec-2024 14:54
ANIONS BY E300.0, REV 2.1, 1993		**Method:E300**					Analyst: TH
Chloride	**61.2**		**0.200**	**0.500**	**mg/L**	1	10-Dec-2024 11:40
Sulfate	**83.7**		**0.200**	**0.500**	**mg/L**	1	10-Dec-2024 11:40
TOTAL DISSOLVED SOLIDS BY SM2540C -2011		**Method:M2540C**					Analyst: MH
Total Dissolved Solids (Residue, Filterable)	**404**		**5.00**	**10.0**	**mg/L**	1	09-Dec-2024 10:30
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	16-Dec-2024 12:35

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

Weight / Prep Log

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24120314

Batch ID: 221538 **Start Date:** 07 Dec 2024 10:00 **End Date:** 07 Dec 2024 10:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24120314-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24120314-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24120314-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24120314-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24120314-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24120314-06		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 221693 **Start Date:** 11 Dec 2024 08:30 **End Date:** 11 Dec 2024 08:30
Method: MERCURY PREP BY 7470A- WATER **Prep Code:** HG_WPR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24120314-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24120314-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24120314-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24120314-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24120314-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24120314-06		10 (mL)	10 (mL)	1	120 plastic HNO3

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24120314

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 221538 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS24120314-01	MW-47	05 Dec 2024 09:20		07 Dec 2024 10:00	09 Dec 2024 14:46	1
HS24120314-02	MW-48	05 Dec 2024 10:00		07 Dec 2024 10:00	09 Dec 2024 14:48	1
HS24120314-03	MW-49	05 Dec 2024 08:20		07 Dec 2024 10:00	09 Dec 2024 14:20	1
HS24120314-04	MW-50	05 Dec 2024 10:50		07 Dec 2024 10:00	09 Dec 2024 15:52	20
HS24120314-04	MW-50	05 Dec 2024 10:50		07 Dec 2024 10:00	09 Dec 2024 14:50	1
HS24120314-05	Field Blank	05 Dec 2024 10:15		07 Dec 2024 10:00	09 Dec 2024 14:52	1
HS24120314-06	Field Dup	05 Dec 2024 09:00		07 Dec 2024 10:00	09 Dec 2024 14:54	1
Batch ID: 221693 (0)	**Test Name :** MERCURY BY SW7470A				**Matrix:** Water	
HS24120314-01	MW-47	05 Dec 2024 09:20		11 Dec 2024 08:30	11 Dec 2024 15:06	1
HS24120314-02	MW-48	05 Dec 2024 10:00		11 Dec 2024 08:30	11 Dec 2024 15:08	1
HS24120314-03	MW-49	05 Dec 2024 08:20		11 Dec 2024 08:30	11 Dec 2024 15:09	1
HS24120314-04	MW-50	05 Dec 2024 10:50		11 Dec 2024 08:30	11 Dec 2024 15:18	1
HS24120314-05	Field Blank	05 Dec 2024 10:15		11 Dec 2024 08:30	11 Dec 2024 15:20	1
HS24120314-06	Field Dup	05 Dec 2024 09:00		11 Dec 2024 08:30	11 Dec 2024 15:21	1
Batch ID: R502007 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS24120314-01	MW-47	05 Dec 2024 09:20			10 Dec 2024 10:41	10
HS24120314-02	MW-48	05 Dec 2024 10:00			10 Dec 2024 10:47	2
HS24120314-03	MW-49	05 Dec 2024 08:20			10 Dec 2024 10:53	10
HS24120314-04	MW-50	05 Dec 2024 10:50			10 Dec 2024 10:59	20
HS24120314-05	Field Blank	05 Dec 2024 10:15			10 Dec 2024 11:04	1
HS24120314-06	Field Dup	05 Dec 2024 09:00			10 Dec 2024 11:40	1
Batch ID: R502092 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS24120314-01	MW-47	05 Dec 2024 09:20			09 Dec 2024 10:30	1
HS24120314-02	MW-48	05 Dec 2024 10:00			09 Dec 2024 10:30	1
HS24120314-03	MW-49	05 Dec 2024 08:20			09 Dec 2024 10:30	1
HS24120314-04	MW-50	05 Dec 2024 10:50			09 Dec 2024 10:30	1
HS24120314-05	Field Blank	05 Dec 2024 10:15			09 Dec 2024 10:30	1
HS24120314-06	Field Dup	05 Dec 2024 09:00			09 Dec 2024 10:30	1
Batch ID: R502421 (0)	**Test Name :** SUBCONTRACT ANALYSIS - FLOURIDE				**Matrix:** Water	
HS24120314-01	MW-47	05 Dec 2024 09:20			16 Dec 2024 12:35	1
HS24120314-02	MW-48	05 Dec 2024 10:00			16 Dec 2024 12:35	1
HS24120314-03	MW-49	05 Dec 2024 08:20			16 Dec 2024 12:35	1
HS24120314-04	MW-50	05 Dec 2024 10:50			16 Dec 2024 12:35	1
HS24120314-05	Field Blank	05 Dec 2024 10:15			16 Dec 2024 12:35	1
HS24120314-06	Field Dup	05 Dec 2024 09:00			16 Dec 2024 12:35	1

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24120314

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R503795 (0)	**Test Name :** SUBCONTRACT ANALYSIS - RADIUM 228				**Matrix:** Water	
HS24120314-01	MW-47	05 Dec 2024 09:20			06 Jan 2025 16:02	1
HS24120314-01	MW-47	05 Dec 2024 09:20			06 Jan 2025 16:02	1
HS24120314-02	MW-48	05 Dec 2024 10:00			06 Jan 2025 16:02	1
HS24120314-02	MW-48	05 Dec 2024 10:00			06 Jan 2025 16:02	1
HS24120314-03	MW-49	05 Dec 2024 08:20			06 Jan 2025 16:02	1
HS24120314-03	MW-49	05 Dec 2024 08:20			06 Jan 2025 16:02	1
HS24120314-04	MW-50	05 Dec 2024 10:50			06 Jan 2025 16:02	1
HS24120314-04	MW-50	05 Dec 2024 10:50			06 Jan 2025 16:02	1

WorkOrder: HS24120314
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	0.00584	0.0110	0.0200
A	Calcium	7440-70-2	0.0500	0.130	0.0340	0.500

WorkOrder: HS24120314
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: HS24120314
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	0.506	0.200	0.500
A	Sulfate	14808-79-8	0.500	0.502	0.200	0.500

WorkOrder: HS24120314
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	7.50	4.00	5.00	10.0

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24120314

QC BATCH REPORT

Batch ID: 221538 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MBLK Sample ID: **MBLK-221538** Units: **mg/L** Analysis Date: **09-Dec-2024 14:01**
Client ID: Run ID: **ICPMS06_501833** SeqNo: **8570436** PrepDate: **07-Dec-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-221538** Units: **mg/L** Analysis Date: **09-Dec-2024 14:03**
Client ID: Run ID: **ICPMS06_501833** SeqNo: **8570437** PrepDate: **07-Dec-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4219	0.0200	0.5	0	84.4	80 - 120				
Calcium	4.635	0.500	5	0	92.7	80 - 120				

MS Sample ID: **HS24120314-03MS** Units: **mg/L** Analysis Date: **09-Dec-2024 14:23**
Client ID: **MW-49** Run ID: **ICPMS06_501833** SeqNo: **8570441** PrepDate: **07-Dec-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4811	0.0200	0.5	0.04586	87.0	80 - 120				
Calcium	99.21	0.500	5	94.44	95.4	80 - 120				O

MSD Sample ID: **HS24120314-03MSD** Units: **mg/L** Analysis Date: **09-Dec-2024 14:24**
Client ID: **MW-49** Run ID: **ICPMS06_501833** SeqNo: **8570442** PrepDate: **07-Dec-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4953	0.0200	0.5	0.04586	89.9	80 - 120	0.4811	2.93	20	
Calcium	98.37	0.500	5	94.44	78.5	80 - 120	99.21	0.854	20	SO

PDS Sample ID: **HS24120314-03PDS** Units: **mg/L** Analysis Date: **09-Dec-2024 14:26**
Client ID: **MW-49** Run ID: **ICPMS06_501833** SeqNo: **8570443** PrepDate: **07-Dec-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4534	0.0200	0.5	0.04586	81.5	75 - 125				
Calcium	96.35	0.500	10	94.44	19.0	75 - 125				SO

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24120314

QC BATCH REPORT

Batch ID: 221538 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

SD Sample ID: **HS24120314-03SD** Units: **mg/L** Analysis Date: **09-Dec-2024 14:44**
Client ID: **MW-49** Run ID: **ICPMS06_501833** SeqNo: **8570524** PrepDate: **07-Dec-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Boron	< 0.0550	0.100					0.04586	0	10	
Calcium	96.76	2.50					94.44	2.46	10	

The following samples were analyzed in this batch: HS24120314-01 HS24120314-02 HS24120314-03 HS24120314-04 HS24120314-05 HS24120314-06

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24120314

QC BATCH REPORT

Batch ID: R502007 (0) **Instrument: ICS-Integrion** **Method: ANIONS BY E300.0, REV 2.1, 1993**

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **10-Dec-2024 07:22**
Client ID: Run ID: **ICS-Integrion_502007** SeqNo: **8583709** 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: **10-Dec-2024 07:33**
Client ID: Run ID: **ICS-Integrion_502007** SeqNo: **8583710** PrepDate: DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.33	0.500	20	0	102	90 - 110				
Sulfate	19.28	0.500	20	0	96.4	90 - 110				

MS Sample ID: **HS24120366-06MS** Units: **mg/L** Analysis Date: **10-Dec-2024 09:01**
Client ID: Run ID: **ICS-Integrion_502007** SeqNo: **8583723** PrepDate: DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	386.6	5.00	100	300.2	86.4	80 - 120				
Sulfate	211.6	5.00	100	129	82.6	80 - 120				

MS Sample ID: **HS24120314-03MS** Units: **mg/L** Analysis Date: **10-Dec-2024 11:45**
Client ID: **MW-49** Run ID: **ICS-Integrion_502007** SeqNo: **8583746** PrepDate: DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	342.4	5.00	100	255	87.4	80 - 120				
Sulfate	195.1	5.00	100	91.66	103	80 - 120				

MSD Sample ID: **HS24120366-06MSD** Units: **mg/L** Analysis Date: **10-Dec-2024 09:07**
Client ID: Run ID: **ICS-Integrion_502007** SeqNo: **8583724** PrepDate: DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	385.8	5.00	100	300.2	85.6	80 - 120	386.6	0.205	20	
Sulfate	210	5.00	100	129	81.0	80 - 120	211.6	0.764	20	

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24120314

QC BATCH REPORT

Batch ID: R502007 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MSD Sample ID: **HS24120314-03MSD** Units: **mg/L** Analysis Date: **10-Dec-2024 11:51**
Client ID: **MW-49** Run ID: **ICS-Integrion_502007** SeqNo: **8583747** PrepDate: DF: **10**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	343	5.00	100	255	88.0	80 - 120	342.4	0.163	20	
Sulfate	196.6	5.00	100	91.66	105	80 - 120	195.1	0.768	20	

The following samples were analyzed in this batch: HS24120314-01 HS24120314-02 HS24120314-03 HS24120314-04 HS24120314-05 HS24120314-06

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: HS24120314

QC BATCH REPORT

Batch ID: R502092 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK Sample ID: **WMBLK-12092024** Units: **mg/L** Analysis Date: **09-Dec-2024 10:30**
Client ID: Run ID: **Balance1_502092** SeqNo: **8585561** 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-12092024** Units: **mg/L** Analysis Date: **09-Dec-2024 10:30**
Client ID: Run ID: **Balance1_502092** SeqNo: **8585560** 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)	1046	10.0	1000	0	105	85 - 115				

DUP Sample ID: **HS24120352-03DUP** Units: **mg/L** Analysis Date: **09-Dec-2024 10:30**
Client ID: Run ID: **Balance1_502092** SeqNo: **8585556** 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)	5180	10.0					5220	0.769	20	

DUP Sample ID: **HS24120314-03DUP** Units: **mg/L** Analysis Date: **09-Dec-2024 10:30**
Client ID: **MW-49** Run ID: **Balance1_502092** SeqNo: **8585550** 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)	796	10.0					756	5.15	20	

The following samples were analyzed in this batch: HS24120314-01 HS24120314-02 HS24120314-03 HS24120314-04 HS24120314-05 HS24120314-06

Client: TRC
Project: NRG Limestone- Appendix III
WorkOrder: **HS24120314**

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
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: HS24120314 **Date/Time Received:** **05-Dec-2024 14:10**

Client Name: TRC-HOU **Received by:** **Jacob Coronado**

Completed By:	/S/ Rajen Giga	06-Dec-2024 10:18	**Reviewed by:**	/S/ Alexis Dorenbosch	06-Dec-2024 11:34
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **W** 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 ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:327602
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?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	1.4uc/c , 1.0uc/c	IR34	
Cooler(s)/Kit(s):	49207/46440		
Date/Time sample(s) sent to storage:	12/06/2024 10:30		
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:

Cincinnati, OH +1 513 733 5336
Everett, WA +1 425 356 2600
Fort Collins, CO +1 970 490 1511
Holland, MI +1 616 399 6070

Chain of Custody Forr

Page 1 of 1

COC ID: 327602

HS24120314

TRC
NRG Limestone

, WV

ALS Project Manager:

Customer Information		Project Information	
Purchase Order	211586	Project Name	NRG Limestone- Appendix III - IV
Work Order		Project Number	528473.0000.0000
Company Name	TRC Corporation	Bill To Company	TRC
Send Report To	Lori Burns	Invoice Attn	A/P
Address	14701 St Mary's Lane Suite 500	Address	14701 St Mary's Lane Suite 500
City/State/Zip	Houston, TX 77079	City/State/Zip	Houston TX 77079
Phone	(713) 244-1000	Phone	(713) 244-1000
Fax	(713) 244-1099	Fax	(713) 244-1099
e-Mail Address	LBurns@trcsolutions.com	e-Mail Address	apinvoiceapproval@trcsolutions.com

A	ICP_TW (Sb,As,B,Ba,Be,Ca Cd,Cr,Co Pb,Li,Mo,Se,Tl)
B	300_W (Cl, SO4)
C	Sub_Fluoride (Sub Fluoride to ALS Michigan)
D	TDS_W 2540C (TDS)
E	ICP_TW (B, Ca, (App III))
F	HG_W (Mercury)
G	SUB_RA 228 (Sub RA 228 to GEL)
H	SUB_RA 226 (Sub RA 226 to GEL)
I	
J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-47	12-5-24	920	Water	2.8	5	X	X	X	X	X	X	X	X			
2	MW-48		1000	Water	2.8	5	X	X	X	X	X	X	X	X			
3	MW-49		820	Water	2.8	5	X	X	X	X	X	X	X	X			
4	MW-50		1050	Water	2.8	5	X	X	X	X	X	X	X	X			
5	MW-49-MS		820	Water	2.8	5	X	X	X	X	X	X	X	X			
6	MW-49-MSD		820	Water	2.8	5	X	X	X	X	X	X	X	X			
7	Field Blank		1015	Water	2.8	3	X	X	X	X	X	X	X	X			
8	Field Dup		900	Water	2.8	3	X	X	X	X	X	X	X	X			
9																	
10																	

Sampler(s) Please Print & Sign: Cody Springer

Shipment Method: Consult. Drop off

Required Turnaround Time: (Check Box) ☐ STD 10 W. Days ☒ 5 W. Days ☐ 2 W. Days ☐ 24 Hr ☐ Other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Cody Springer	12-5-24	1410	
Relinquished by:	Date:	Time:	Received by (Laboratory):
	12/5/24	1410	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: NRG Limestone PRIVILEGED & CONFIDENTIAL

Cooler ID	Cooler Temp.
49207	1.4
46440	1.0

QC Package: (Check One Box Below)
☐ Level II Std QC ☒ Level II Std QC/Raw Data
☐ Level III Std QC/Raw Data ☐ Other
☐ Level IV SVM/LCS

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

1736

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.

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Privileged and Confidential

CUSTODY SEAL
Seal Broken By:
Date:
Time:
CUSTODY SEAL
Seal Broken By:
Date:
Time:
ALS
10450 Stanciff Rd., Suite 210
Houston, Texas 77099
Tel: +1 281 530 5656
Fax: +1 281 530 5887
ALS
10450 Stanciff Rd., Suite 210
Houston, Texas 77099
Tel: +1 281 530 5656
Fax: +1 281 530 5887

16-Dec-2024

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

Re: **HS24120314** Work Order: **24120232**

Dear Andrew,

ALS Environmental received 6 samples on 10-Dec-2024 09:00 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 20.

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

Client:	ALS Environmental
Project:	HS24120314
Work Order:	24120232

TRRP Laboratory Data Package Cover Page

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

This signature page, the laboratory case narrative, 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) for each analyte for each method and matrix;
R10 Other problems or anomalies:
See Case Narrative.

Release Statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached Case Narrative and QC Summaries. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified, and no information affecting the quality of the data has been knowingly withheld.

Chelsey Cook

Chelsey Cook
Project Manager

WET CHEMISTRY DATA ASSESSMENT CHECKLIST

Wet Chemistry	Batch Number: TITRATOR1_241213B	Instrument ID: TITRATOR1
Method: FL_4500C_W	Work order Number (s): 24120232	
Analyst Name: KB	Date: 12/13/2024 Reviewer Name:SH	Date:12/13/24

	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: HS24120314
Work Order: **24120232**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
24120232-01	MW-47	Water	HS24120314-01	12/5/2024 09:20	12/10/2024 09:00	☐
24120232-02	MW-48	Water	HS24120314-02	12/5/2024 10:00	12/10/2024 09:00	☐
24120232-03	MW-49	Water	HS24120314-03	12/5/2024 08:20	12/10/2024 09:00	☐
24120232-04	MW-50	Water	HS24120314-04	12/5/2024 10:50	12/10/2024 09:00	☐
24120232-05	Field Blank	Water	HS24120314-05	12/5/2024 10:15	12/10/2024 09:00	☐
24120232-06	Field Dup	Water	HS24120314-06	12/5/2024 09:00	12/10/2024 09:00	☐

Client: ALS Environmental
Project: HS24120314
WorkOrder: **24120232**

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:	HS24120314
Work Order:	24120232

Case Narrative

Samples for the above noted Work Order were received on 12/10/2024. 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: *16-Dec-24*

Client: ALS Environmental
Project: HS24120314
Sample ID: MW-47
Collection Date: 12/5/2024 09:20 AM

Work Order: 24120232
Lab ID: 24120232-01
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
FLUORIDE		Method: **A4500-F C-11**					Analyst: **KLB**
Fluoride	**0.370**		**0.058**	**0.10**	**mg/L**	1	12/13/2024 15:59

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

Client: ALS Environmental
Project: HS24120314
Sample ID: MW-48
Collection Date: 12/5/2024 10:00 AM

Work Order: 24120232
Lab ID: 24120232-02
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
FLUORIDE		Method: **A4500-F C-11**					Analyst: **KLB**
Fluoride	**0.460**		**0.058**	**0.10**	**mg/L**	1	12/13/2024 15:59

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

Client: ALS Environmental
Project: HS24120314
Sample ID: MW-49
Collection Date: 12/5/2024 08:20 AM

Work Order: 24120232
Lab ID: 24120232-03
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
FLUORIDE		Method: **A4500-F C-11**					Analyst: **KLB**
Fluoride	**0.0900**	J	**0.058**	**0.10**	**mg/L**	1	12/13/2024 15:59

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

Client: ALS Environmental
Project: HS24120314
Sample ID: MW-50
Collection Date: 12/5/2024 10:50 AM

Work Order: 24120232
Lab ID: 24120232-04
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
FLUORIDE		Method: **A4500-F C-11**					Analyst: **KLB**
Fluoride	**0.0700**	J	**0.058**	**0.10**	**mg/L**	1	12/13/2024 15:59

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

Client: ALS Environmental
Project: HS24120314
Sample ID: Field Blank
Collection Date: 12/5/2024 10:15 AM

Work Order: 24120232
Lab ID: 24120232-05
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
FLUORIDE		Method: **A4500-F C-11**					Analyst: **KLB**
Fluoride	U		0.058	0.10	mg/L	1	12/13/2024 15:59

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

Client: ALS Environmental
Project: HS24120314
Sample ID: Field Dup
Collection Date: 12/5/2024 09:00 AM

Work Order: 24120232
Lab ID: 24120232-06
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
FLUORIDE		Method: **A4500-F C-11**					Analyst: **KLB**
Fluoride	**0.430**		**0.058**	**0.10**	**mg/L**	1	12/13/2024 15:59

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

ALS Group, USA

Date: 16-Dec-24

WorkOrder: 24120232
InstrumentID: Titrator 1
Test Code: FL_4500C_W
Test Number: A4500-F C-11
Test Name: Fluoride

METHOD DETECTION / REPORTING LIMITS

Matrix: Water **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	Fluoride	16984-48-8	0	0.058	0.10

Work Order: 24120232
Client: ALS Environmental
Project: HS24120314

DATES REPORT

Sample ID	Client Sample ID	Matrix	Collection Date	TCLP Date	Prep Date	Analysis Date
Batch ID R416110 **Test Name:** Fluoride						
24120232-01	MW-47	Water	12/5/2024 9:20:00 AM			12/13/2024 03:59 PM
24120232-02	MW-48		12/5/2024 10:00:00 AM			12/13/2024 03:59 PM
24120232-03	MW-49		12/5/2024 8:20:00 AM			12/13/2024 03:59 PM
24120232-04	MW-50		12/5/2024 10:50:00 AM			12/13/2024 03:59 PM
24120232-05	Field Blank		12/5/2024 10:15:00 AM			12/13/2024 03:59 PM
24120232-06	Field Dup		12/5/2024 9:00:00 AM			12/13/2024 03:59 PM

Batch ID: **R416110** Instrument ID **Titrator 1** Method: **A4500-F C-11**

MBLK Sample ID: **MB-R416110-R416110** Units: **mg/L** Analysis Date: **12/13/2024 03:59 PM**
Client ID: Run ID: **TITRATOR 1_241213B** SeqNo: **11311984** Prep Date: DF: **1**

Analyte	Result	MDL	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	U	0.058	0.10								

LCS Sample ID: **LCS-R416110-R416110** Units: **mg/L** Analysis Date: **12/13/2024 03:59 PM**
Client ID: Run ID: **TITRATOR 1_241213B** SeqNo: **11311985** Prep Date: DF: **1**

Analyte	Result	MDL	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.32	0.058	0.10	5	0	106	90-111	0			

MS Sample ID: **24120232-03AMS** Units: **mg/L** Analysis Date: **12/13/2024 03:59 PM**
Client ID: **MW-49** Run ID: **TITRATOR 1_241213B** SeqNo: **11311989** Prep Date: DF: **1**

Analyte	Result	MDL	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.36	0.058	0.10	5	0.09	105	90-111	0			

MSD Sample ID: **24120232-03AMSD** Units: **mg/L** Analysis Date: **12/13/2024 03:59 PM**
Client ID: **MW-49** Run ID: **TITRATOR 1_241213B** SeqNo: **11311990** Prep Date: DF: **1**

Analyte	Result	MDL	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.32	0.058	0.10	5	0.09	105	90-111	5.36	0.749	20	

The following samples were analyzed in this batch:

24120232-01A	24120232-02A	24120232-03A
24120232-04A	24120232-05A	24120232-06A

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

24120232

ALS - HOUSTON: ALS Environmental
Project: HS24120314

0 Stancliff Rd, Ste 210
ton, TX 77099
-1 281 530 5656
-1 281 530 5887
v.alsglobal.com

SAMPLING STATE:

COC ID: 27547

SUBCONTRACT TO:

ALS Group USA, (
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:	HS24120314
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS24120314-01**	**MW-47**	**Water**	**05 Dec 2024 09:20**
	Fluoride by ISE 4500. EQuis EDD			12 Dec 2024
2.	**HS24120314-02**	**MW-48**	**Water**	**05 Dec 2024 10:00**
	Fluoride by ISE 4500. EQuis EDD			12 Dec 2024
3.	**HS24120314-03**	**MW-49**	**Water**	**05 Dec 2024 08:20**
	Fluoride by ISE 4500. EQuis EDD Designated MS/MSD			12 Dec 2024
4.	**HS24120314-04**	**MW-50**	**Water**	**05 Dec 2024 10:50**
	Fluoride by ISE 4500. EQuis EDD			12 Dec 2024
5.	**HS24120314-05**	**Field Blank**	**Water**	**05 Dec 2024 10:15**
	Fluoride by ISE 4500. EQuis EDD			12 Dec 2024
6.	**HS24120314-06**	**Field Dup**	**Water**	**05 Dec 2024 09:00**
	Fluoride by ISE 4500. EQuis EDD			12 Dec 2024

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above. MW-49 Client Designated MS/MSD

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

12/6/24

Subcontract Chain of Custody

SAMPLING STATE: **Texas**

COC ID: **27547**

Relinquished By: [signature] (RF)

Date/Time: 12/9/24 1700

Received By:

Date/Time: 12-10-24 900

Cooler ID(s):

Temperature(s): 2.8 °C

ALS Group, USA
Holland, Michigan

Sample Receipt Checklist

Client Name: **ALS - HOUSTON** Date/Time Received: **10-Dec-24 09:00**

Work Order: **24120232** Received by: **JD**

Checklist completed by Jason Delinger (eSignature) 11-Dec-24 (Date) Reviewed by: Chelsey Cook (eSignature) 12-Dec-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):	2.8/2.8 c	df	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	12/11/2024 9:40:51 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:

SRC Page 1 of 1

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

January 08, 2025

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

Work Order: **HS24120314**

Laboratory Results for: **NRG Limestone- Appendix IV**

Dear Lori Burris,

ALS Environmental received 6 sample(s) on Dec 05, 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: ANDREW.NEIR
Andy C. Neir

Client:	TRC	**TRRP Laboratory Data Package Cover Page**
Project:	NRG Limestone- Appendix IV	
WorkOrder:	**HS24120314**	

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:	NRG Limestone- Appendix IV	
WorkOrder:	**HS24120314**	

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: 01/06/2025					
Project Name: NRG Limestone- Appendix IV			Laboratory Job Number: HS24120314					
Reviewer Name: Andy Neir			Prep Batch Number(s): 221538, 221693					
#[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: 01/06/2025				
Project Name: NRG Limestone- Appendix IV			Laboratory Job Number: HS24120314				
Reviewer Name: Andy Neir			Prep Batch Number(s): 221538, 221693				
#[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: 01/06/2025
Project Name: NRG Limestone- Appendix IV		Laboratory Job Number: HS24120314
Reviewer Name: Andy Neir		Prep Batch Number(s): 221538, 221693
ER#[5]	**Description**	
1	Batch 221538, Metals by method SW6020, Sample MW-49, MS and/or MSD recovered outside control limits for arsenic, barium, and thallium. For barium the results in the parent sample are greater than 4x the spike amount	
2	Analyses of Fluoride were performed by ALS Holland, MI. Report and Laboratory Review Checklist are appended. Analyses of Radium 226/228 were analyzed by GEL Laboratories in Charleston, SC. Final report is appended.	
3	See Run Log and CCB Exception Reports	
4	Batch 221538, Metals by method SW6020, Sample MW-49, PDS recovered outside control limits for barium ; however, the results in the parent sample is greater than 4x 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: NRG Limestone- Appendix IV
WorkOrder: HS24120314
Start Date: 11-Dec-2024 End Date: 11-Dec-2024

Run ID:HG04_501609
Instrument:HG04
Method:SW7470A

Sample No.	D/F	Time	FileID	Analytes
ICV	1	11-Dec-2024 12:06		HG
ICB	1	11-Dec-2024 12:08		HG
CRA	1	11-Dec-2024 12:09		HG
CCV 1	1	11-Dec-2024 12:13		HG
CCB 1	1	11-Dec-2024 12:15		HG
CCV 2	1	11-Dec-2024 12:34		HG
CCB 2	1	11-Dec-2024 12:36		HG
CCV 3	1	11-Dec-2024 12:50		HG
CCB 3	1	11-Dec-2024 12:53		HG
CCV 4	1	11-Dec-2024 13:15		HG
CCB 4	1	11-Dec-2024 13:16		HG
CCV 5	1	11-Dec-2024 13:37		HG
CCB 5	1	11-Dec-2024 13:38		HG
CCV 6	1	11-Dec-2024 14:01		HG
CCB 6	1	11-Dec-2024 14:03		HG
CCV 7	1	11-Dec-2024 14:27		HG
CCB 7	1	11-Dec-2024 14:28		HG
CCV 8	1	11-Dec-2024 14:37		HG
CCB 8	1	11-Dec-2024 14:38		HG
MBLK-221693	1	11-Dec-2024 14:54		HG
LCS-221693	1	11-Dec-2024 14:57		HG
MW-47	1	11-Dec-2024 15:06		HG
MW-48	1	11-Dec-2024 15:08		HG
MW-49	1	11-Dec-2024 15:09		HG
MW-49MS	1	11-Dec-2024 15:11		HG
CCV 9	1	11-Dec-2024 15:13		HG
CCB 9	1	11-Dec-2024 15:14		HG
MW-49MSD	1	11-Dec-2024 15:16		HG
MW-50	1	11-Dec-2024 15:18		HG
Field Blank	1	11-Dec-2024 15:20		HG
Field Dup	1	11-Dec-2024 15:21		HG
CCV 10	1	11-Dec-2024 15:33		HG
CCB 10	1	11-Dec-2024 15:35		HG
CCV 11	1	11-Dec-2024 15:44		HG
CCB 11	1	11-Dec-2024 15:46		HG
CCV 12	1	11-Dec-2024 16:05		HG
CCB 12	1	11-Dec-2024 16:06		HG
CCV 13	1	11-Dec-2024 16:31		HG
CCB 13	1	11-Dec-2024 16:33		HG
CCV 14	1	11-Dec-2024 16:57		HG
CCB 14	1	11-Dec-2024 16:59		HG
CCV 15	1	11-Dec-2024 17:09		HG
CCB 15	1	11-Dec-2024 17:10		HG
CRA	1	11-Dec-2024 17:12		HG

FORM 13 - ANALYSIS RUN LOG

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24120314
Start Date: 09-Dec-2024 End Date: 09-Dec-2024

Run ID:ICPMS06_501833
Instrument:ICPMS06
Method:SW6020A

Sample No.	D/F	Time	FileID	Analytes
ICV	1	09-Dec-2024 10:42	019_ICV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
LLICV5	1	09-Dec-2024 10:44	020LCV5.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
LLICV2	1	09-Dec-2024 10:46	021LCV2.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
ICB	1	09-Dec-2024 10:48	022_ICB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
ICSA	1	09-Dec-2024 10:54	024ICSA.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
ICSAB	1	09-Dec-2024 10:56	025ICSB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCV 1	1	09-Dec-2024 11:03	028_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 1	1	09-Dec-2024 11:05	029_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCV 2	1	09-Dec-2024 11:24	039_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 2	1	09-Dec-2024 11:26	040_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCV 3	1	09-Dec-2024 11:48	051_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 3	1	09-Dec-2024 11:50	052_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCV 4	1	09-Dec-2024 12:14	063_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 4	1	09-Dec-2024 12:16	064_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCV 5	1	09-Dec-2024 13:19	067_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 5	1	09-Dec-2024 13:21	068_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCV 6	1	09-Dec-2024 13:46	079_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 6	1	09-Dec-2024 13:48	080_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCV 7	1	09-Dec-2024 13:57	083_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 7	1	09-Dec-2024 13:59	084_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
MBLK-221538	1	09-Dec-2024 14:01	085SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
LCS-221538	1	09-Dec-2024 14:03	086SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE
MW-49	1	09-Dec-2024 14:20	089SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
MW-49MS	1	09-Dec-2024 14:23	090SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
MW-49MSD	1	09-Dec-2024 14:24	091SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
MW-49PDS	1	09-Dec-2024 14:26	092SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE
CCV 8	1	09-Dec-2024 14:37	094_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 8	1	09-Dec-2024 14:39	095_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
LCS-221538	1	09-Dec-2024 14:42	096SMPL.d	TL
MW-49SD	5	09-Dec-2024 14:44	097SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
MW-47	1	09-Dec-2024 14:46	098SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
MW-48	1	09-Dec-2024 14:48	099SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
MW-50	1	09-Dec-2024 14:50	100SMPL.d	AS B BA BE CD CO CR LI MO PB SB SE TL
Field Blank	1	09-Dec-2024 14:52	101SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
Field Dup	1	09-Dec-2024 14:54	102SMPL.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
MW-49PDS	1	09-Dec-2024 14:56	103SMPL.d	TL
CCV 9	1	09-Dec-2024 15:05	105_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 9	1	09-Dec-2024 15:07	106_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCV 10	1	09-Dec-2024 15:48	117_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 10	1	09-Dec-2024 15:50	118_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
MW-50	20	09-Dec-2024 15:52	119SMPL.d	CA
CCV 11	1	09-Dec-2024 16:19	129_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 11	1	09-Dec-2024 16:21	130_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCV 12	1	09-Dec-2024 16:50	132_CCV.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
CCB 12	1	09-Dec-2024 16:52	133_CCB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
LLCCV2	1	09-Dec-2024 16:54	134LCV2.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
LLCCV5	1	09-Dec-2024 16:56	135LCV5.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
ICSA	1	09-Dec-2024 16:58	136ICSA.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL
ICSAB	1	09-Dec-2024 17:00	137ICSB.d	AS B BA BE CA CD CO CR LI MO PB SB SE TL

CCB EXCEPTIONS REPORT

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24120314

Run ID:HG04_501609
Instrument:HG04
Method:SW7470A

CCB 9 Date: 11-Dec-2024 15:14 Seq: 8585874 D/F: 1 Units: ug/L

Analyte	Result	MDL	Report Limit
Mercury	-0.032	0.03	0.2

CCB EXCEPTIONS REPORT

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24120314

Run ID:ICPMS06_501833
Instrument:ICPMS06
Method:SW6020A

CCB 1	Date: 09-Dec-2024 11:05	Seq: 8569816		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Chromium	-0.521	0.4	4	
CCB 2	Date: 09-Dec-2024 11:26	Seq: 8569971		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Chromium	-0.55	0.4	4	
CCB 3	Date: 09-Dec-2024 11:50	Seq: 8569983		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Chromium	-0.564	0.4	4	
CCB 4	Date: 09-Dec-2024 12:16	Seq: 8570053		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Chromium	-0.538	0.4	4	
CCB 5	Date: 09-Dec-2024 13:21	Seq: 8570336		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Chromium	-0.536	0.4	4	
CCB 6	Date: 09-Dec-2024 13:48	Seq: 8570348		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Chromium	-0.532	0.4	4	
CCB 7	Date: 09-Dec-2024 13:59	Seq: 8570435		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Chromium	-0.547	0.4	4	
CCB 8	Date: 09-Dec-2024 14:39	Seq: 8570522		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Chromium	-0.497	0.4	4	
CCB 9	Date: 09-Dec-2024 15:07	Seq: 8570599		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Chromium	-0.532	0.4	4	
CCB 10	Date: 09-Dec-2024 15:50	Seq: 8570655		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Chromium	-0.543	0.4	4	
CCB 11	Date: 09-Dec-2024 16:21	Seq: 8570740		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Chromium	-0.505	0.4	4	
CCB 12	Date: 09-Dec-2024 16:52	Seq: 8571254		D/F: 1	Units: ug/L
	Analyte	**Result**	**MDL**	**Report Limit**	
	Chromium	-0.501	0.4	4	

Client: TRC
Project: NRG Limestone- Appendix IV
Work Order: HS24120314

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS24120314-01	MW-47	Water		05-Dec-2024 09:20	05-Dec-2024 14:10	☐
HS24120314-02	MW-48	Water		05-Dec-2024 10:00	05-Dec-2024 14:10	☐
HS24120314-03	MW-49	Water		05-Dec-2024 08:20	05-Dec-2024 14:10	☐
HS24120314-04	MW-50	Water		05-Dec-2024 10:50	05-Dec-2024 14:10	☐
HS24120314-05	Field Blank	Water		05-Dec-2024 10:15	05-Dec-2024 14:10	☐
HS24120314-06	Field Dup	Water		05-Dec-2024 09:00	05-Dec-2024 14:10	☐

Client: TRC
Project: NRG Limestone- Appendix IV
Sample ID: MW-47
Collection Date: 05-Dec-2024 09:20

ANALYTICAL REPORT
WorkOrder:HS24120314
Lab ID:HS24120314-01
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 07-Dec-2024		Analyst: JC
Antimony	< 0.000400		0.000400	0.00200	mg/L	1	09-Dec-2024 14:46
Arsenic	**0.00343**		**0.000400**	**0.00200**	**mg/L**	1	09-Dec-2024 14:46
Barium	**0.125**		**0.00190**	**0.00400**	**mg/L**	1	09-Dec-2024 14:46
Beryllium	< 0.000200		0.000200	0.00200	mg/L	1	09-Dec-2024 14:46
Cadmium	< 0.000200		0.000200	0.00200	mg/L	1	09-Dec-2024 14:46
Chromium	< 0.000400		0.000400	0.00400	mg/L	1	09-Dec-2024 14:46
Cobalt	**0.000580**	J	**0.000200**	**0.00500**	**mg/L**	1	09-Dec-2024 14:46
Lead	< 0.000600		0.000600	0.00200	mg/L	1	09-Dec-2024 14:46
Lithium	**0.0150**		**0.00100**	**0.00500**	**mg/L**	1	09-Dec-2024 14:46
Molybdenum	**0.00158**	J	**0.000600**	**0.00500**	**mg/L**	1	09-Dec-2024 14:46
Selenium	< 0.00110		0.00110	0.00200	mg/L	1	09-Dec-2024 14:46
Thallium	< 0.000200		0.000200	0.00200	mg/L	1	09-Dec-2024 14:46
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 11-Dec-2024		Analyst: DH
Mercury	< 0.0000300		0.0000300	0.000200	mg/L	1	11-Dec-2024 15:06
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	16-Dec-2024 12:35
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	06-Jan-2025 16:02
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	06-Jan-2025 16:02

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

Client: TRC
Project: NRG Limestone- Appendix IV
Sample ID: MW-48
Collection Date: 05-Dec-2024 10:00

ANALYTICAL REPORT
WorkOrder:HS24120314
Lab ID:HS24120314-02
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 07-Dec-2024		Analyst: JC
Antimony	< 0.000400		0.000400	0.00200	mg/L	1	09-Dec-2024 14:48
Arsenic	**0.00561**		**0.000400**	**0.00200**	**mg/L**	1	09-Dec-2024 14:48
Barium	**0.0234**		**0.00190**	**0.00400**	**mg/L**	1	09-Dec-2024 14:48
Beryllium	< 0.000200		0.000200	0.00200	mg/L	1	09-Dec-2024 14:48
Cadmium	< 0.000200		0.000200	0.00200	mg/L	1	09-Dec-2024 14:48
Chromium	< 0.000400		0.000400	0.00400	mg/L	1	09-Dec-2024 14:48
Cobalt	< 0.000200		0.000200	0.00500	mg/L	1	09-Dec-2024 14:48
Lead	< 0.000600		0.000600	0.00200	mg/L	1	09-Dec-2024 14:48
Lithium	**0.00848**		**0.00100**	**0.00500**	**mg/L**	1	09-Dec-2024 14:48
Molybdenum	**0.00111**	J	**0.000600**	**0.00500**	**mg/L**	1	09-Dec-2024 14:48
Selenium	**0.00332**		**0.00110**	**0.00200**	**mg/L**	1	09-Dec-2024 14:48
Thallium	< 0.000200		0.000200	0.00200	mg/L	1	09-Dec-2024 14:48
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 11-Dec-2024		Analyst: DH
Mercury	< 0.0000300		0.0000300	0.000200	mg/L	1	11-Dec-2024 15:08
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	16-Dec-2024 12:35
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	06-Jan-2025 16:02
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	06-Jan-2025 16:02

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

Client: TRC
Project: NRG Limestone- Appendix IV
Sample ID: MW-49
Collection Date: 05-Dec-2024 08:20

ANALYTICAL REPORT
WorkOrder:HS24120314
Lab ID:HS24120314-03
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 07-Dec-2024		Analyst: JC
Antimony	< 0.000400		0.000400	0.00200	mg/L	1	09-Dec-2024 14:20
Arsenic	**0.0202**		**0.000400**	**0.00200**	**mg/L**	1	09-Dec-2024 14:20
Barium	**0.918**		**0.00190**	**0.00400**	**mg/L**	1	09-Dec-2024 14:20
Beryllium	< 0.000200		0.000200	0.00200	mg/L	1	09-Dec-2024 14:20
Cadmium	< 0.000200		0.000200	0.00200	mg/L	1	09-Dec-2024 14:20
Chromium	< 0.000400		0.000400	0.00400	mg/L	1	09-Dec-2024 14:20
Cobalt	**0.0331**		**0.000200**	**0.00500**	**mg/L**	1	09-Dec-2024 14:20
Lead	< 0.000600		0.000600	0.00200	mg/L	1	09-Dec-2024 14:20
Lithium	**0.00248**	J	**0.00100**	**0.00500**	**mg/L**	1	09-Dec-2024 14:20
Molybdenum	**0.000877**	J	**0.000600**	**0.00500**	**mg/L**	1	09-Dec-2024 14:20
Selenium	< 0.00110		0.00110	0.00200	mg/L	1	09-Dec-2024 14:20
Thallium	< 0.000200		0.000200	0.00200	mg/L	1	09-Dec-2024 14:20
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 11-Dec-2024		Analyst: DH
Mercury	< 0.0000300		0.0000300	0.000200	mg/L	1	11-Dec-2024 15:09
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	16-Dec-2024 12:35
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	06-Jan-2025 16:02
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	06-Jan-2025 16:02

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

Client: TRC
Project: NRG Limestone- Appendix IV
Sample ID: MW-50
Collection Date: 05-Dec-2024 10:50

ANALYTICAL REPORT
WorkOrder:HS24120314
Lab ID:HS24120314-04
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 07-Dec-2024		Analyst: JC
Antimony	< 0.000400		0.000400	0.00200	mg/L	1	09-Dec-2024 14:50
Arsenic	**0.000640**	J	**0.000400**	**0.00200**	**mg/L**	1	09-Dec-2024 14:50
Barium	**0.0175**		**0.00190**	**0.00400**	**mg/L**	1	09-Dec-2024 14:50
Beryllium	< 0.000200		0.000200	0.00200	mg/L	1	09-Dec-2024 14:50
Cadmium	**0.000986**	J	**0.000200**	**0.00200**	**mg/L**	1	09-Dec-2024 14:50
Chromium	< 0.000400		0.000400	0.00400	mg/L	1	09-Dec-2024 14:50
Cobalt	**0.00532**		**0.000200**	**0.00500**	**mg/L**	1	09-Dec-2024 14:50
Lead	< 0.000600		0.000600	0.00200	mg/L	1	09-Dec-2024 14:50
Lithium	**0.0220**		**0.00100**	**0.00500**	**mg/L**	1	09-Dec-2024 14:50
Molybdenum	< 0.000600		0.000600	0.00500	mg/L	1	09-Dec-2024 14:50
Selenium	< 0.00110		0.00110	0.00200	mg/L	1	09-Dec-2024 14:50
Thallium	< 0.000200		0.000200	0.00200	mg/L	1	09-Dec-2024 14:50
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 11-Dec-2024		Analyst: DH
Mercury	< 0.0000300		0.0000300	0.000200	mg/L	1	11-Dec-2024 15:18
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	16-Dec-2024 12:35
SUBCONTRACT ANALYSIS - RADIUM 226		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	06-Jan-2025 16:02
SUBCONTRACT ANALYSIS - RADIUM 228		**Method:NA**					Analyst: SUB
Subcontract Analysis	See Attached		0		NA	1	06-Jan-2025 16:02

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

Client: TRC
Project: NRG Limestone- Appendix IV
Sample ID: Field Blank
Collection Date: 05-Dec-2024 10:15

ANALYTICAL REPORT
WorkOrder:HS24120314
Lab ID:HS24120314-05
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 07-Dec-2024		Analyst: JC
Antimony	< 0.000400		0.000400	0.00200	mg/L	1	09-Dec-2024 14:52
Arsenic	< 0.000400		0.000400	0.00200	mg/L	1	09-Dec-2024 14:52
Barium	< 0.00190		0.00190	0.00400	mg/L	1	09-Dec-2024 14:52
Beryllium	< 0.000200		0.000200	0.00200	mg/L	1	09-Dec-2024 14:52
Cadmium	< 0.000200		0.000200	0.00200	mg/L	1	09-Dec-2024 14:52
Chromium	< 0.000400		0.000400	0.00400	mg/L	1	09-Dec-2024 14:52
Cobalt	< 0.000200		0.000200	0.00500	mg/L	1	09-Dec-2024 14:52
Lead	< 0.000600		0.000600	0.00200	mg/L	1	09-Dec-2024 14:52
Lithium	< 0.00100		0.00100	0.00500	mg/L	1	09-Dec-2024 14:52
Molybdenum	< 0.000600		0.000600	0.00500	mg/L	1	09-Dec-2024 14:52
Selenium	< 0.00110		0.00110	0.00200	mg/L	1	09-Dec-2024 14:52
Thallium	< 0.000200		0.000200	0.00200	mg/L	1	09-Dec-2024 14:52
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 11-Dec-2024		Analyst: DH
Mercury	< 0.0000300		0.0000300	0.000200	mg/L	1	11-Dec-2024 15:20
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	16-Dec-2024 12:35

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

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Client: TRC
Project: NRG Limestone- Appendix IV
Sample ID: Field Dup
Collection Date: 05-Dec-2024 09:00

ANALYTICAL REPORT
WorkOrder:HS24120314
Lab ID:HS24120314-06
Matrix:Water

ANALYSES	RESULT	QUAL	SDL	MQL	UNITS	DILUTION FACTOR	DATE ANALYZED
ICP-MS METALS BY SW6020A		**Method:SW6020A**			Prep:SW3010A / 07-Dec-2024		Analyst: JC
Antimony	< 0.000400		0.000400	0.00200	mg/L	1	09-Dec-2024 14:54
Arsenic	**0.00546**		**0.000400**	**0.00200**	**mg/L**	1	09-Dec-2024 14:54
Barium	**0.0228**		**0.00190**	**0.00400**	**mg/L**	1	09-Dec-2024 14:54
Beryllium	< 0.000200		0.000200	0.00200	mg/L	1	09-Dec-2024 14:54
Cadmium	< 0.000200		0.000200	0.00200	mg/L	1	09-Dec-2024 14:54
Chromium	< 0.000400		0.000400	0.00400	mg/L	1	09-Dec-2024 14:54
Cobalt	< 0.000200		0.000200	0.00500	mg/L	1	09-Dec-2024 14:54
Lead	< 0.000600		0.000600	0.00200	mg/L	1	09-Dec-2024 14:54
Lithium	**0.00815**		**0.00100**	**0.00500**	**mg/L**	1	09-Dec-2024 14:54
Molybdenum	**0.00110**	J	**0.000600**	**0.00500**	**mg/L**	1	09-Dec-2024 14:54
Selenium	**0.00353**		**0.00110**	**0.00200**	**mg/L**	1	09-Dec-2024 14:54
Thallium	< 0.000200		0.000200	0.00200	mg/L	1	09-Dec-2024 14:54
MERCURY BY SW7470A		**Method:SW7470A**			Prep:SW7470A / 11-Dec-2024		Analyst: DH
Mercury	< 0.0000300		0.0000300	0.000200	mg/L	1	11-Dec-2024 15:21
SUBCONTRACT ANALYSIS - FLOURIDE		**Method:NA**					Analyst: SUBHO
Subcontract Analysis	See Attached		0			1	16-Dec-2024 12:35

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

Privileged and Confidential

Weight / Prep Log

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24120314

Batch ID: 221538 **Start Date:** 07 Dec 2024 10:00 **End Date:** 07 Dec 2024 10:00
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24120314-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24120314-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24120314-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24120314-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24120314-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24120314-06		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 221693 **Start Date:** 11 Dec 2024 08:30 **End Date:** 11 Dec 2024 08:30
Method: MERCURY PREP BY 7470A- WATER **Prep Code:** HG_WPR

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS24120314-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24120314-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24120314-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24120314-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24120314-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS24120314-06		10 (mL)	10 (mL)	1	120 plastic HNO3

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24120314

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 221538 (0)	**Test Name :** ICP-MS METALS BY SW6020A				**Matrix:** Water	
HS24120314-01	MW-47	05 Dec 2024 09:20		07 Dec 2024 10:00	09 Dec 2024 14:46	1
HS24120314-02	MW-48	05 Dec 2024 10:00		07 Dec 2024 10:00	09 Dec 2024 14:48	1
HS24120314-03	MW-49	05 Dec 2024 08:20		07 Dec 2024 10:00	09 Dec 2024 14:20	1
HS24120314-04	MW-50	05 Dec 2024 10:50		07 Dec 2024 10:00	09 Dec 2024 15:52	20
HS24120314-04	MW-50	05 Dec 2024 10:50		07 Dec 2024 10:00	09 Dec 2024 14:50	1
HS24120314-05	Field Blank	05 Dec 2024 10:15		07 Dec 2024 10:00	09 Dec 2024 14:52	1
HS24120314-06	Field Dup	05 Dec 2024 09:00		07 Dec 2024 10:00	09 Dec 2024 14:54	1
Batch ID: 221693 (0)	**Test Name :** MERCURY BY SW7470A				**Matrix:** Water	
HS24120314-01	MW-47	05 Dec 2024 09:20		11 Dec 2024 08:30	11 Dec 2024 15:06	1
HS24120314-02	MW-48	05 Dec 2024 10:00		11 Dec 2024 08:30	11 Dec 2024 15:08	1
HS24120314-03	MW-49	05 Dec 2024 08:20		11 Dec 2024 08:30	11 Dec 2024 15:09	1
HS24120314-04	MW-50	05 Dec 2024 10:50		11 Dec 2024 08:30	11 Dec 2024 15:18	1
HS24120314-05	Field Blank	05 Dec 2024 10:15		11 Dec 2024 08:30	11 Dec 2024 15:20	1
HS24120314-06	Field Dup	05 Dec 2024 09:00		11 Dec 2024 08:30	11 Dec 2024 15:21	1
Batch ID: R502007 (0)	**Test Name :** ANIONS BY E300.0, REV 2.1, 1993				**Matrix:** Water	
HS24120314-01	MW-47	05 Dec 2024 09:20			10 Dec 2024 10:41	10
HS24120314-02	MW-48	05 Dec 2024 10:00			10 Dec 2024 10:47	2
HS24120314-03	MW-49	05 Dec 2024 08:20			10 Dec 2024 10:53	10
HS24120314-04	MW-50	05 Dec 2024 10:50			10 Dec 2024 10:59	20
HS24120314-05	Field Blank	05 Dec 2024 10:15			10 Dec 2024 11:04	1
HS24120314-06	Field Dup	05 Dec 2024 09:00			10 Dec 2024 11:40	1
Batch ID: R502092 (0)	**Test Name :** TOTAL DISSOLVED SOLIDS BY SM2540C-2011				**Matrix:** Water	
HS24120314-01	MW-47	05 Dec 2024 09:20			09 Dec 2024 10:30	1
HS24120314-02	MW-48	05 Dec 2024 10:00			09 Dec 2024 10:30	1
HS24120314-03	MW-49	05 Dec 2024 08:20			09 Dec 2024 10:30	1
HS24120314-04	MW-50	05 Dec 2024 10:50			09 Dec 2024 10:30	1
HS24120314-05	Field Blank	05 Dec 2024 10:15			09 Dec 2024 10:30	1
HS24120314-06	Field Dup	05 Dec 2024 09:00			09 Dec 2024 10:30	1
Batch ID: R502421 (0)	**Test Name :** SUBCONTRACT ANALYSIS - FLOURIDE				**Matrix:** Water	
HS24120314-01	MW-47	05 Dec 2024 09:20			16 Dec 2024 12:35	1
HS24120314-02	MW-48	05 Dec 2024 10:00			16 Dec 2024 12:35	1
HS24120314-03	MW-49	05 Dec 2024 08:20			16 Dec 2024 12:35	1
HS24120314-04	MW-50	05 Dec 2024 10:50			16 Dec 2024 12:35	1
HS24120314-05	Field Blank	05 Dec 2024 10:15			16 Dec 2024 12:35	1
HS24120314-06	Field Dup	05 Dec 2024 09:00			16 Dec 2024 12:35	1

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24120314

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R503795 (0)	**Test Name :** SUBCONTRACT ANALYSIS - RADIUM 228				**Matrix:** Water	
HS24120314-01	MW-47	05 Dec 2024 09:20			06 Jan 2025 16:02	1
HS24120314-01	MW-47	05 Dec 2024 09:20			06 Jan 2025 16:02	1
HS24120314-02	MW-48	05 Dec 2024 10:00			06 Jan 2025 16:02	1
HS24120314-02	MW-48	05 Dec 2024 10:00			06 Jan 2025 16:02	1
HS24120314-03	MW-49	05 Dec 2024 08:20			06 Jan 2025 16:02	1
HS24120314-03	MW-49	05 Dec 2024 08:20			06 Jan 2025 16:02	1
HS24120314-04	MW-50	05 Dec 2024 10:50			06 Jan 2025 16:02	1
HS24120314-04	MW-50	05 Dec 2024 10:50			06 Jan 2025 16:02	1

WorkOrder: HS24120314
InstrumentID: HG04
Test Code: HG_W
Test Number: SW7470A
Test Name: Mercury by SW7470A

METHOD DETECTION / REPORTING LIMITS

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

Type	Analyte	CAS	DCS Spike	DCS	MDL	PQL
A	Mercury	7439-97-6	0.000100	0.0000960	0.0000300	0.000200

WorkOrder: HS24120314
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	Antimony	7440-36-0	0.00125	0.00119	0.000400	0.00200
A	Arsenic	7440-38-2	0.00125	0.00105	0.000400	0.00200
A	Barium	7440-39-3	0.00250	0.00200	0.00190	0.00400
A	Beryllium	7440-41-7	0.000500	0.000870	0.000200	0.00200
A	Cadmium	7440-43-9	0.000500	0.00101	0.000200	0.00200
A	Chromium	7440-47-3	0.00125	0.00251	0.000400	0.00400
A	Cobalt	7440-48-4	0.000500	0.000993	0.000200	0.00500
A	Lead	7439-92-1	0.00125	0.000967	0.000600	0.00200
A	Lithium	7439-93-2	0.00250	0.00101	0.00100	0.00500
A	Molybdenum	7439-98-7	0.00125	0.00101	0.000600	0.00500
A	Selenium	7782-49-2	0.00250	0.00104	0.00110	0.00200
A	Thallium	7440-28-0	0.000500	0.000840	0.000200	0.00200

WorkOrder: HS24120314
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: HS24120314
InstrumentID: Subcontract
Test Code: SUB_RA 226
Test Number: NA
Test Name: Subcontract Analysis - Radium

METHOD DETECTION / REPORTING LIMITS

Matrix: NA **Units:** NA

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

WorkOrder: HS24120314
InstrumentID: Subcontract
Test Code: SUB_RA 228
Test Number: NA
Test Name: Subcontract Analysis - Radium 228

METHOD DETECTION / REPORTING LIMITS

Matrix: NA **Units:** NA

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

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24120314

QC BATCH REPORT

Batch ID: 221538 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MBLK Sample ID: **MBLK-221538** Units: **mg/L** Analysis Date: **09-Dec-2024 14:01**
Client ID: Run ID: **ICPMS06_501833** SeqNo: **8570436** PrepDate: **07-Dec-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	< 0.000400	0.00200								
Arsenic	< 0.000400	0.00200								
Barium	< 0.00190	0.00400								
Beryllium	< 0.000200	0.00200								
Cadmium	< 0.000200	0.00200								
Chromium	< 0.000400	0.00400								
Cobalt	< 0.000200	0.00500								
Lead	< 0.000600	0.00200								
Lithium	< 0.00100	0.00500								
Molybdenum	< 0.000600	0.00500								
Selenium	< 0.00110	0.00200								
Thallium	< 0.000200	0.00200								

LCS Sample ID: **LCS-221538** Units: **mg/L** Analysis Date: **09-Dec-2024 14:03**
Client ID: Run ID: **ICPMS06_501833** SeqNo: **8570437** PrepDate: **07-Dec-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.0462	0.00200	0.05	0	92.4	80 - 120				
Arsenic	0.04525	0.00200	0.05	0	90.5	80 - 120				
Barium	0.04462	0.00400	0.05	0	89.2	80 - 120				
Beryllium	0.04296	0.00200	0.05	0	85.9	80 - 120				
Cadmium	0.04503	0.00200	0.05	0	90.1	80 - 120				
Chromium	0.04551	0.00400	0.05	0	91.0	80 - 120				
Cobalt	0.04546	0.00500	0.05	0	90.9	80 - 120				
Lead	0.04352	0.00200	0.05	0	87.0	80 - 120				
Lithium	0.08657	0.00500	0.1	0	86.6	80 - 120				
Molybdenum	0.04484	0.00500	0.05	0	89.7	80 - 120				
Selenium	0.04595	0.00200	0.05	0	91.9	80 - 120				

LCS Sample ID: **LCS-221538** Units: **mg/L** Analysis Date: **09-Dec-2024 14:42**
Client ID: Run ID: **ICPMS06_501833** SeqNo: **8570523** PrepDate: **07-Dec-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Thallium	0.04119	0.00200	0.05	0	82.4	80 - 120				

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24120314

QC BATCH REPORT

Batch ID: 221538 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

MS Sample ID: **HS24120314-03MS** Units: **mg/L** Analysis Date: **09-Dec-2024 14:23**
Client ID: **MW-49** Run ID: **ICPMS06_501833** SeqNo: **8570441** PrepDate: **07-Dec-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.04449	0.00200	0.05	0.000046	88.9	80 - 120				
Arsenic	0.06475	0.00200	0.05	0.02018	89.1	80 - 120				
Barium	0.9679	0.00400	0.05	0.9175	101	80 - 120				O
Beryllium	0.04309	0.00200	0.05	0.000008	86.2	80 - 120				
Cadmium	0.04437	0.00200	0.05	-0.000015	88.8	80 - 120				
Chromium	0.0438	0.00400	0.05	0.000131	87.3	80 - 120				
Cobalt	0.07523	0.00500	0.05	0.03313	84.2	80 - 120				
Lead	0.04416	0.00200	0.05	-0.000018	88.3	80 - 120				
Lithium	0.0965	0.00500	0.1	0.002476	94.0	80 - 120				
Molybdenum	0.04545	0.00500	0.05	0.000877	89.1	80 - 120				
Selenium	0.04398	0.00200	0.05	0.000117	87.7	80 - 120				
Thallium	0.03478	0.00200	0.05	0.00003	69.5	80 - 120				S

MSD Sample ID: **HS24120314-03MSD** Units: **mg/L** Analysis Date: **09-Dec-2024 14:24**
Client ID: **MW-49** Run ID: **ICPMS06_501833** SeqNo: **8570442** PrepDate: **07-Dec-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.04429	0.00200	0.05	0.000046	88.5	80 - 120	0.04449	0.451	20	
Arsenic	0.06422	0.00200	0.05	0.02018	88.1	80 - 120	0.06475	0.822	20	
Barium	0.9869	0.00400	0.05	0.9175	139	80 - 120	0.9679	1.94	20	SO
Beryllium	0.04333	0.00200	0.05	0.000008	86.6	80 - 120	0.04309	0.555	20	
Cadmium	0.04463	0.00200	0.05	-0.000015	89.3	80 - 120	0.04437	0.586	20	
Chromium	0.04313	0.00400	0.05	0.000131	86.0	80 - 120	0.0438	1.53	20	
Cobalt	0.07378	0.00500	0.05	0.03313	81.3	80 - 120	0.07523	1.94	20	
Lead	0.04402	0.00200	0.05	-0.000018	88.1	80 - 120	0.04416	0.311	20	
Lithium	0.09641	0.00500	0.1	0.002476	93.9	80 - 120	0.0965	0.0912	20	
Molybdenum	0.04462	0.00500	0.05	0.000877	87.5	80 - 120	0.04545	1.85	20	
Selenium	0.04331	0.00200	0.05	0.000117	86.4	80 - 120	0.04398	1.55	20	
Thallium	0.03568	0.00200	0.05	0.00003	71.3	80 - 120	0.03478	2.57	20	S

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24120314

QC BATCH REPORT

Batch ID: 221538 (0) **Instrument: ICPMS06** **Method: ICP-MS METALS BY SW6020A**

PDS Sample ID: **HS24120314-03PDS** Units: **mg/L** Analysis Date: **09-Dec-2024 14:26**
Client ID: **MW-49** Run ID: **ICPMS06_501833** SeqNo: **8570443** PrepDate: **07-Dec-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	0.08677	0.00200	0.1	0.000046	86.7	75 - 125				
Arsenic	0.1061	0.00200	0.1	0.02018	85.9	75 - 125				
Barium	0.9751	0.00400	0.1	0.9175	57.6	75 - 125				SO
Beryllium	0.08298	0.00200	0.1	0.000008	83.0	75 - 125				
Cadmium	0.08714	0.00200	0.1	-0.000015	87.2	75 - 125				
Chromium	0.08428	0.00400	0.1	0.000131	84.2	75 - 125				
Cobalt	0.1134	0.00500	0.1	0.03313	80.3	75 - 125				
Lead	0.08523	0.00200	0.1	-0.000018	85.2	75 - 125				
Lithium	0.0924	0.00500	0.1	0.002476	89.9	70 - 125				
Molybdenum	0.08684	0.00500	0.1	0.000877	86.0	75 - 125				
Selenium	0.08516	0.00200	0.1	0.000117	85.0	75 - 125				

PDS Sample ID: **HS24120314-03PDS** Units: **mg/L** Analysis Date: **09-Dec-2024 14:56**
Client ID: **MW-49** Run ID: **ICPMS06_501833** SeqNo: **8570530** PrepDate: **07-Dec-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Thallium	0.1188	0.00200	0.1	0	119	75 - 125				

SD Sample ID: **HS24120314-03SD** Units: **mg/L** Analysis Date: **09-Dec-2024 14:44**
Client ID: **MW-49** Run ID: **ICPMS06_501833** SeqNo: **8570524** PrepDate: **07-Dec-2024** DF: **5**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Antimony	< 0.00200	0.0100					0	0	10	
Arsenic	0.01981	0.0100					0.02018	1.84	10	
Barium	0.9011	0.0200					0.9175	1.79	10	
Beryllium	< 0.00100	0.0100					0	0	10	
Cadmium	< 0.00100	0.0100					0	0	10	
Chromium	< 0.00200	0.0200					0	0	10	
Cobalt	0.03312	0.0250					0.03313	0.0121	10	
Lead	< 0.00300	0.0100					0	0	10	
Lithium	< 0.00500	0.0250					0.002476	0	10	
Molybdenum	< 0.00300	0.0250					0.000877	0	10	
Selenium	< 0.00550	0.0100					0	0	10	
Thallium	0.001017	0.0100					0	0	10	J

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24120314

QC BATCH REPORT

Batch ID: 221538 (0)	Instrument: ICPMS06	Method: ICP-MS METALS BY SW6020A

The following samples were analyzed in this batch:				
	HS24120314-01	HS24120314-02	HS24120314-03	HS24120314-04
	HS24120314-05	HS24120314-06		

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: HS24120314

QC BATCH REPORT

Batch ID: 221693 (0) **Instrument: HG04** **Method: MERCURY BY SW7470A**

MBLK Sample ID: **MBLK-221693** Units: **mg/L** Analysis Date: **11-Dec-2024 14:54**
Client ID: Run ID: **HG04_501609** SeqNo: **8585863** PrepDate: **11-Dec-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	< 0.0000300	0.000200								

LCS Sample ID: **LCS-221693** Units: **mg/L** Analysis Date: **11-Dec-2024 14:57**
Client ID: Run ID: **HG04_501609** SeqNo: **8585864** PrepDate: **11-Dec-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0051	0.000200	0.005	0	102	80 - 120				

MS Sample ID: **HS24120314-03MS** Units: **mg/L** Analysis Date: **11-Dec-2024 15:11**
Client ID: **MW-49** Run ID: **HG04_501609** SeqNo: **8585872** PrepDate: **11-Dec-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00397	0.000200	0.005	-0.000006	79.5	75 - 125				

MSD Sample ID: **HS24120314-03MSD** Units: **mg/L** Analysis Date: **11-Dec-2024 15:16**
Client ID: **MW-49** Run ID: **HG04_501609** SeqNo: **8585875** PrepDate: **11-Dec-2024** DF: **1**

Analyte	Result	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00424	0.000200	0.005	-0.000006	84.9	75 - 125	0.00397	6.58	20	

The following samples were analyzed in this batch: HS24120314-01 HS24120314-02 HS24120314-03 HS24120314-04 HS24120314-05 HS24120314-06

Client: TRC
Project: NRG Limestone- Appendix IV
WorkOrder: **HS24120314**

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
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: HS24120314 **Date/Time Received:** **05-Dec-2024 14:10**

Client Name: TRC-HOU **Received by:** **Jacob Coronado**

Completed By:	/S/ Rajen Giga	06-Dec-2024 10:18	**Reviewed by:**	/S/ Alexis Dorenbosch	06-Dec-2024 11:34
	eSignature	Date/Time		eSignature	Date/Time

Matrices: **W** 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 ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:327602
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?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	1.4uc/c , 1.0uc/c	IR34	
Cooler(s)/Kit(s):	49207/46440		
Date/Time sample(s) sent to storage:	12/06/2024 10:30		
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:

Cincinnati, OH +1 513 733 5336
Everett, WA +1 425 356 2600
Fort Collins, CO +1 970 490 1511
Holland, MI +1 616 399 6070

Chain of Custody Forr

Page 1 of 1

COC ID: 327602

HS24120314

TRC
NRG Limestone

, WV

ALS Project Manager:

Customer Information		Project Information			
Purchase Order	211586	Project Name	NRG Limestone- Appendix III - IV	A	ICP_TW (Sb,As,B,Ba,Be,Ca Cd,Cr,Co Pb,Li,Mo,Se,Tl)
Work Order		Project Number	528473.0000.0000	B	300_W (Cl, SO4)
Company Name	TRC Corporation	Bill To Company	TRC	C	Sub_Fluoride (Sub Fluoride to ALS Michigan)
Send Report To	Lori Burns	Invoice Attn	A/P	D	TDS_W 2540C (TDS)
Address	14701 St Mary's Lane Suite 500	Address	14701 St Mary's Lane Suite 500	E	ICP_TW (B, Ca, (Aop III))
				F	HG_W (Mercury)
City/State/Zip	Houston, TX 77079	City/State/Zip	Houston TX 77079	G	SUB_RA 228 (Sub RA 228 to GEL)
Phone	(713) 244-1000	Phone	(713) 244-1000	H	SUB_RA 226 (Sub RA 226 to GEL)
Fax	(713) 244-1099	Fax	(713) 244-1099	I	
e-Mail Address	LBurns@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-47	12-5-24	920	Water	2.8	5	X	X	X	X	X	X	X	X			
2	MW-48		1000	Water	2.8	5	X	X	X	X	X	X	X	X			
3	MW-49		820	Water	2.8	5	X	X	X	X	X	X	X	X			
4	MW-50		1050	Water	2.8	5	X	X	X	X	X	X	X	X			
5	MW-49 - MS		820	Water	2.8	5	X	X	X	X	X	X	X	X			
6	MW-49 - MSD		820	Water	2.8	5	X	X	X	X	X	X	X	X			
7	Field Blank		1015	Water	2.8	3	X	X	X	X	X	X	X	X			
8	Field Dup		900	Water	2.8	3	X	X	X	X	X	X	X	X			
9																	
10																	

Sampler(s) Please Print & Sign: Cody Springer

Shipment Method: Consult. Drop off

Required Turnaround Time: (Check Box) ☐ STD 10 W. Days ☒ 5 W. Days ☐ 2 W. Days ☐ 24 Hr ☐ Other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Cody Springer	12-5-24	1410	
Relinquished by:	Date: 12/5/24	Time: 1410	Received by (Laboratory):
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: NRG Limestone PRIVILEGED & CONFIDENTIAL

Cooler ID	Cooler Temp.
49207	1.4
46440	1.0

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

1736

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.

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Privileged and Confidential

CUSTODY SEAL
Seal Broken By:
Date:
Time:
CUSTODY SEAL
Seal Broken By:
Date:
Time:
ALS
10450 Stanciff Rd., Suite 210
Houston, Texas 77099
Tel: +1 281 530 5656
Fax: +1 281 530 5887
ALS
10450 Stanciff Rd., Suite 210
Houston, Texas 77099
Tel: +1 281 530 5656
Fax: +1 281 530 5887

16-Dec-2024

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

Re: **HS24120314** Work Order: **24120232**

Dear Andrew,

ALS Environmental received 6 samples on 10-Dec-2024 09:00 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 20.

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

Client:	ALS Environmental
Project:	HS24120314
Work Order:	24120232

TRRP Laboratory Data Package Cover Page

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

This signature page, the laboratory case narrative, 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) for each analyte for each method and matrix;
R10 Other problems or anomalies:
See Case Narrative.

Release Statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached Case Narrative and QC Summaries. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified, and no information affecting the quality of the data has been knowingly withheld.

Chelsey Cook

Chelsey Cook
Project Manager

WET CHEMISTRY DATA ASSESSMENT CHECKLIST

Wet Chemistry	Batch Number: TITRATOR1_241213B	Instrument ID: TITRATOR1
Method: FL_4500C_W	Work order Number (s): 24120232	
Analyst Name: KB	Date: 12/13/2024 Reviewer Name:SH	Date:12/13/24

	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: HS24120314
Work Order: **24120232**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
24120232-01	MW-47	Water	HS24120314-01	12/5/2024 09:20	12/10/2024 09:00	☐
24120232-02	MW-48	Water	HS24120314-02	12/5/2024 10:00	12/10/2024 09:00	☐
24120232-03	MW-49	Water	HS24120314-03	12/5/2024 08:20	12/10/2024 09:00	☐
24120232-04	MW-50	Water	HS24120314-04	12/5/2024 10:50	12/10/2024 09:00	☐
24120232-05	Field Blank	Water	HS24120314-05	12/5/2024 10:15	12/10/2024 09:00	☐
24120232-06	Field Dup	Water	HS24120314-06	12/5/2024 09:00	12/10/2024 09:00	☐

Client: ALS Environmental
Project: HS24120314
WorkOrder: **24120232**

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:	HS24120314
Work Order:	24120232

Case Narrative

Samples for the above noted Work Order were received on 12/10/2024. 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: *16-Dec-24*

Client: ALS Environmental
Project: HS24120314
Sample ID: MW-47
Collection Date: 12/5/2024 09:20 AM

Work Order: 24120232
Lab ID: 24120232-01
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
FLUORIDE		Method: **A4500-F C-11**					Analyst: **KLB**
Fluoride	**0.370**		**0.058**	**0.10**	**mg/L**	1	12/13/2024 15:59

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

Client: ALS Environmental
Project: HS24120314
Sample ID: MW-48
Collection Date: 12/5/2024 10:00 AM

Work Order: 24120232
Lab ID: 24120232-02
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
FLUORIDE		Method: **A4500-F C-11**					Analyst: **KLB**
Fluoride	**0.460**		**0.058**	**0.10**	**mg/L**	1	12/13/2024 15:59

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

Client: ALS Environmental
Project: HS24120314
Sample ID: MW-49
Collection Date: 12/5/2024 08:20 AM

Work Order: 24120232
Lab ID: 24120232-03
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
FLUORIDE		Method: **A4500-F C-11**					Analyst: **KLB**
Fluoride	**0.0900**	J	**0.058**	**0.10**	**mg/L**	1	12/13/2024 15:59

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

Client: ALS Environmental
Project: HS24120314
Sample ID: MW-50
Collection Date: 12/5/2024 10:50 AM

Work Order: 24120232
Lab ID: 24120232-04
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
FLUORIDE		Method: **A4500-F C-11**					Analyst: **KLB**
Fluoride	**0.0700**	J	**0.058**	**0.10**	**mg/L**	1	12/13/2024 15:59

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

Client: ALS Environmental
Project: HS24120314
Sample ID: Field Blank
Collection Date: 12/5/2024 10:15 AM

Work Order: 24120232
Lab ID: 24120232-05
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
FLUORIDE		Method: **A4500-F C-11**					Analyst: **KLB**
Fluoride	U		0.058	0.10	mg/L	1	12/13/2024 15:59

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

Client: ALS Environmental
Project: HS24120314
Sample ID: Field Dup
Collection Date: 12/5/2024 09:00 AM

Work Order: 24120232
Lab ID: 24120232-06
Matrix: WATER

Analyses	Result	Qual	SDL	MQL	Units	Dilution Factor	Date Analyzed
FLUORIDE		Method: **A4500-F C-11**					Analyst: **KLB**
Fluoride	**0.430**		**0.058**	**0.10**	**mg/L**	1	12/13/2024 15:59

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

ALS Group, USA

Date: 16-Dec-24

WorkOrder: 24120232
InstrumentID: Titrator 1
Test Code: FL_4500C_W
Test Number: A4500-F C-11
Test Name: Fluoride

METHOD DETECTION / REPORTING LIMITS

Matrix: Water **Units:** mg/L

Type	Analyte	CAS	DCS	MDL	Unadjusted MQL
A	Fluoride	16984-48-8	0	0.058	0.10

Work Order: 24120232
Client: ALS Environmental
Project: HS24120314

DATES REPORT

Sample ID	Client Sample ID	Matrix	Collection Date	TCLP Date	Prep Date	Analysis Date
Batch ID R416110 **Test Name:** Fluoride						
24120232-01	MW-47	Water	12/5/2024 9:20:00 AM			12/13/2024 03:59 PM
24120232-02	MW-48		12/5/2024 10:00:00 AM			12/13/2024 03:59 PM
24120232-03	MW-49		12/5/2024 8:20:00 AM			12/13/2024 03:59 PM
24120232-04	MW-50		12/5/2024 10:50:00 AM			12/13/2024 03:59 PM
24120232-05	Field Blank		12/5/2024 10:15:00 AM			12/13/2024 03:59 PM
24120232-06	Field Dup		12/5/2024 9:00:00 AM			12/13/2024 03:59 PM

ALS Group, USA

Date: 16-Dec-24

Client: ALS Environmental

Work Order: 24120232

Project: HS24120314

QC BATCH REPORT

Batch ID: **R416110** Instrument ID **Titrator 1** Method: **A4500-F C-11**

MBLK Sample ID: **MB-R416110-R416110** Units: **mg/L** Analysis Date: **12/13/2024 03:59 PM**

Client ID: Run ID: **TITRATOR 1_241213B** SeqNo: **11311984** Prep Date: DF: **1**

Analyte	Result	MDL	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	U	0.058	0.10								

LCS Sample ID: **LCS-R416110-R416110** Units: **mg/L** Analysis Date: **12/13/2024 03:59 PM**

Client ID: Run ID: **TITRATOR 1_241213B** SeqNo: **11311985** Prep Date: DF: **1**

Analyte	Result	MDL	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.32	0.058	0.10	5	0	106	90-111	0			

MS Sample ID: **24120232-03AMS** Units: **mg/L** Analysis Date: **12/13/2024 03:59 PM**

Client ID: **MW-49** Run ID: **TITRATOR 1_241213B** SeqNo: **11311989** Prep Date: DF: **1**

Analyte	Result	MDL	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.36	0.058	0.10	5	0.09	105	90-111	0			

MSD Sample ID: **24120232-03AMSD** Units: **mg/L** Analysis Date: **12/13/2024 03:59 PM**

Client ID: **MW-49** Run ID: **TITRATOR 1_241213B** SeqNo: **11311990** Prep Date: DF: **1**

Analyte	Result	MDL	MQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	5.32	0.058	0.10	5	0.09	105	90-111	5.36	0.749	20	

The following samples were analyzed in this batch:

24120232-01A	24120232-02A	24120232-03A
24120232-04A	24120232-05A	24120232-06A

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

24120232

ALS - HOUSTON: ALS Environmental
Project: HS24120314

0 Stancliff Rd, Ste 210
ton, TX 77099
-1 281 530 5656
-1 281 530 5887
v.alsglobal.com

SAMPLING STATE:

COC ID: 27547

SUBCONTRACT TO:

ALS Group USA, (
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:	HS24120314
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS24120314-01**	**MW-47**	**Water**	**05 Dec 2024 09:20**
	Fluoride by ISE 4500. EQuis EDD			12 Dec 2024
2.	**HS24120314-02**	**MW-48**	**Water**	**05 Dec 2024 10:00**
	Fluoride by ISE 4500. EQuis EDD			12 Dec 2024
3.	**HS24120314-03**	**MW-49**	**Water**	**05 Dec 2024 08:20**
	Fluoride by ISE 4500. EQuis EDD Designated MS/MSD			12 Dec 2024
4.	**HS24120314-04**	**MW-50**	**Water**	**05 Dec 2024 10:50**
	Fluoride by ISE 4500. EQuis EDD			12 Dec 2024
5.	**HS24120314-05**	**Field Blank**	**Water**	**05 Dec 2024 10:15**
	Fluoride by ISE 4500. EQuis EDD			12 Dec 2024
6.	**HS24120314-06**	**Field Dup**	**Water**	**05 Dec 2024 09:00**
	Fluoride by ISE 4500. EQuis EDD			12 Dec 2024

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above. MW-49 Client Designated MS/MSD

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

12/6/24

Subcontract Chain of Custody

SAMPLING STATE: **Texas**

COC ID: **27547**

Relinquished By: [signature] (RF)

Date/Time: 12/9/24 1700

Received By:

Date/Time: 12-10-24 900

Cooler ID(s):

Temperature(s): 2.8 °C

ALS Group, USA
Holland, Michigan

Sample Receipt Checklist

Client Name: **ALS - HOUSTON** Date/Time Received: **10-Dec-24 09:00**

Work Order: **24120232** Received by: **JD**

Checklist completed by Jason Delinger (eSignature) 11-Dec-24 (Date) Reviewed by: Chelsey Cook (eSignature) 12-Dec-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):	2.8/2.8 c	df	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	12/11/2024 9:40:51 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:

SRC Page 1 of 1

GEL Laboratories LLC
a member of The GEL Group INC

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

January 03, 2025

Andy Neir
ALS Houston
10450 Stancliff Rd
Ste 210
Houston, Texas 77099

Re: Houston - Neir L2
Work Order: 699577

Dear Andy Neir:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on December 10, 2024. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4422.

Sincerely,

J W Crook

Jacob Crook
Project Manager

Purchase Order: HS24120314
Chain of Custody: 27546
Enclosures

problem solved

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

Certificate of Analysis

Report Date: January 3, 2025

Company :	ALS Houston
Address :	10450 Stancliff Rd Ste 210 Houston, Texas 77099
Contact:	Andy Neir
Project:	Houston - Neir L2

Client Sample ID:	MW-47	Project:	ALSE01323
Sample ID:	699577001	Client ID:	ALSE001
Matrix:	Water		
Collect Date:	05-DEC-24 09:20		
Receive Date:	10-DEC-24		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting												
GFPC Ra228, Liquid "As Received"												
Radium-228		3.04	2.30	3.00	pCi/L			ST2	01/02/25	1312	2720203	1
Radium-226+Radium-228 Calculation "See Parent Products"												
Radium-226+228 Sum		6.44			pCi/L			NXL1	01/03/25	1513	2720206	2
Rad Radium-226												
Lucas Cell, Ra226, Liquid "As Received"												
Radium-226		3.40	0.212	1.00	pCi/L			MJ2	01/02/25	0825	2721663	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"			83.6	(15%-125%)

Notes:

Column headers are defined as follows:

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

Certificate of Analysis

Report Date: January 3, 2025

Company :	ALS Houston
Address :	10450 Stancliff Rd Ste 210 Houston, Texas 77099
Contact:	Andy Neir
Project:	Houston - Neir L2

Client Sample ID:	MW-48	Project:	ALSE01323
Sample ID:	699577002	Client ID:	ALSE001
Matrix:	Water		
Collect Date:	05-DEC-24 10:00		
Receive Date:	10-DEC-24		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting												
GFPC Ra228, Liquid "As Received"												
Radium-228	U	-0.665	2.07	3.00	pCi/L			ST2	01/02/25	1312	2720203	1
Radium-226+Radium-228 Calculation "See Parent Products"												
Radium-226+228 Sum		0.0225			pCi/L			NXL1	01/03/25	1513	2720206	2
Rad Radium-226												
Lucas Cell, Ra226, Liquid "As Received"												
Radium-226	U	0.0225	0.302	1.00	pCi/L			MJ2	01/02/25	0825	2721663	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"			73.4	(15%-125%)

Notes:

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: January 3, 2025

Company :	ALS Houston
Address :	10450 Stancliff Rd Ste 210 Houston, Texas 77099
Contact:	Andy Neir
Project:	Houston - Neir L2

Client Sample ID:	MW-49	Project:	ALSE01323
Sample ID:	699577003	Client ID:	ALSE001
Matrix:	Water		
Collect Date:	05-DEC-24 08:20		
Receive Date:	10-DEC-24		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting												
GFPC Ra228, Liquid "As Received"												
Radium-228	U	1.32	1.72	3.00	pCi/L			ST2	01/02/25	1312	2720203	1
Radium-226+Radium-228 Calculation "See Parent Products"												
Radium-226+228 Sum		2.21			pCi/L			NXL1	01/03/25	1513	2720206	2
Rad Radium-226												
Lucas Cell, Ra226, Liquid "As Received"												
Radium-226		0.884	0.188	1.00	pCi/L			MJ2	01/02/25	0825	2721663	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"			89.5	(15%-125%)

Notes:

Column headers are defined as follows:

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

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

Certificate of Analysis

Report Date: January 3, 2025

Company :	ALS Houston
Address :	10450 Stancliff Rd Ste 210 Houston, Texas 77099
Contact:	Andy Neir
Project:	Houston - Neir L2

Client Sample ID:	MW-50	Project:	ALSE01323
Sample ID:	699577004	Client ID:	ALSE001
Matrix:	Water		
Collect Date:	05-DEC-24 10:50		
Receive Date:	10-DEC-24		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting												
GFPC Ra228, Liquid "As Received"												
Radium-228		1.71	1.68	3.00	pCi/L			ST2	01/02/25	1312	2720203	1
Radium-226+Radium-228 Calculation "See Parent Products"												
Radium-226+228 Sum		3.83			pCi/L			NXL1	01/03/25	1513	2720206	2
Rad Radium-226												
Lucas Cell, Ra226, Liquid "As Received"												
Radium-226		2.11	0.203	1.00	pCi/L			MJ2	01/02/25	0825	2721663	3

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"			81.2	(15%-125%)

Notes:

Column headers are defined as follows:

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

QC Summary

Client : **ALS Houston**
10450 Stancliff Rd
Ste 210
Houston, Texas

Contact: **Andy Neir**

Workorder: **699577**

Report Date: January 3, 2025

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 2720203										
QC1205948337 699577003 DUP										
Radium-228	U	1.32	U	1.46	pCi/L	0		N/A	ST2	01/02/2513:12
	Uncert:	+/-1.08		+/-1.18						
	TPU:	+/-1.13		+/-1.23						
QC1205948338 LCS										
Radium-228	80.8			88.6	pCi/L		110	(75%-125%)	ST2	01/02/2513:12
	Uncert:			+/-5.55						
	TPU:			+/-23.4						
QC1205948336 MB										
Radium-228			U	0.983	pCi/L				ST2	01/02/2515:38
	Uncert:			+/-1.22						
	TPU:			+/-1.24						
Rad Ra-226										
Batch 2721663										
QC1205951450 699577003 DUP										
Radium-226		0.884		0.848	pCi/L	4.14		(0% - 100%)	MJ2	01/02/2508:58
	Uncert:	+/-0.297		+/-0.301						
	TPU:	+/-0.337		+/-0.351						
QC1205951453 LCS										
Radium-226	27.2			24.9	pCi/L		91.4	(75%-125%)	MJ2	01/02/2508:58
	Uncert:			+/-1.46						
	TPU:			+/-4.28						
QC1205951448 MB										
Radium-226				0.293	pCi/L				MJ2	01/02/2508:25
	Uncert:			+/-0.171						
	TPU:			+/-0.177						
QC1205951452 699577003 MS										
Radium-226	134	0.884		143	pCi/L		106	(75%-125%)	MJ2	01/02/2508:58
	Uncert:	+/-0.297		+/-8.95						
	TPU:	+/-0.337		+/-24.6						

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

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

QC Summary

Workorder: **699577**

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

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

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

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

Receipt Narrative
for
ALS Environmental
SDG: 699577

January 03, 2025

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample receipt: The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 10, 2024 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Sample Identification: The laboratory received the following samples:

Laboratory ID	Client ID
699577001	MW-47
699577002	MW-48
699577003	MW-49
699577004	MW-50

Case Narrative:

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

J W Crook

Jacob Crook
Project Manager

699577

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:** **27546**

SUBCONTRACT TO:

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29407

Phone: +1 843 556 8171

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:	
Email:	

INVOICE INFORMATION:

Company:	ALS Houston
Contact:	Accounts Payable
Address:	10450 Stancliff Rd, Ste 210
Phone:	+1 281 530 5656
Reference:	HS24120314
TSR:	Sonia West

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	**HS24120314-01**	**MW-47**	**Water**	**05 Dec 2024 09:20**
	Report Combined RA 226/228 Value &the 2 Individual			12 Dec 2024
	Report Combined RA 226/228 Value &the 2 Individual			12 Dec 2024
2.	**HS24120314-02**	**MW-48**	**Water**	**05 Dec 2024 10:00**
	Report Combined RA 226/228 Value &the 2 Individual			12 Dec 2024
	Report Combined RA 226/228 Value &the 2 Individual			12 Dec 2024
3.	**HS24120314-03**	**MW-49**	**Water**	**05 Dec 2024 08:20**
	Report Combined RA 226/228 Value &the 2 Individual *Designated MS/MSD*			12 Dec 2024
	Report Combined RA 226/228 Value &the 2 Individual *Designated MS/MSD*			12 Dec 2024
4.	**HS24120314-04**	**MW-50**	**Water**	**05 Dec 2024 10:50**
	Report Combined RA 226/228 Value &the 2 Individual			12 Dec 2024
	Report Combined RA 226/228 Value &the 2 Individual			12 Dec 2024

Comments: Please analyze for the analysis listed above.
Send report to the emails shown above. MW-49 Client Designated MS/MSD

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

12/6/24

Subcontract Chain of Custody

SAMPLING STATE: Texas

COC ID: 27546

Relinquished By: _____ Date/Time: 12/9/24 0700

Received By: _____ Date/Time: 12/10/24 0900

Cooler ID(s): _____ Temperature(s): _____

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: ALSE	**SDG/AR/COC/Work Order:** 699577
Received By: QG	**Date Received:** 12/10/24
Carrier and Tracking Number	Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other 7386 7929 8453

Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A)Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___
B) Did the client designate the samples are to be received as radioactive?		X	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		X	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 CPM / mR/Hr **Classified as: Rad 1 Rad 2 Rad 3**
D) Did the client designate samples are hazardous?		X	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		X	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	X			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*		X		Preservation Method: Wet Ice Ice Packs Dry ice None Other: melted ice *all temperatures are recorded in Celsius TEMP: 6ic
4	Daily check performed and passed on IR temperature gun?	✓			Temperature Device Serial #: IR1-23 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	X			Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?			X	If Yes, are Encores or Soil Kits present for solids? Yes___ No___ NA___(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No) Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample ID's and containers affected:
8	Samples received within holding time?	X			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	X			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?			X	Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?			X	
13	COC form is properly signed in relinquished/received sections?	X			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials AM Date 12/13/24 Page 1 of 1

List of current GEL Certifications as of 03 January 2025

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	NV-C24-00175
New Hampshire NELAP	205424
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2023-152
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235
Utah NELAP	SC000122024-45
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Appendix E
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 7, 2024, at the NRG Limestone Electric Generating Station (Limestone) in Jewett, 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;
- A4500-F C-11 – Fluoride by ion selective electrode;
- SW-846 6020A – Metals (Calcium, Boron and Sodium) 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

Fourteen (14) groundwater samples, one (1) duplicate groundwater sample and one (1) field blank were analyzed for chloride, sulfate, fluoride, calcium, boron, and TDS. In addition, groundwater sample MW-21 was also analyzed for sodium. 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 shown 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 a temperature of 1.3 and 1.1°C. Samples reported in the data package were prepared and analyzed within holding times.

Calibrations

According to the LRC, initial and continuing calibration data met EPA, Standard Method (SM) and SW-846 Method requirements for chloride, sulfate, fluoride and TDS.

Metals continuing calibration blanks (CCBs) had detections of boron and sodium. Associated samples were reported at concentrations greater than 5X the CCB result and did not require qualification.

Blanks

Chloride, sulfate, fluoride, metals, and TDS were reported as not-detected in the method blanks.

One field blank (Field Blank) was collected and analyzed as part of this data package. An estimated detection of calcium (0.135 J mg/L) was identified in the field blank. Associated samples were reported for calcium 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 chloride, sulfate, fluoride, metals and TDS.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) samples for fluoride analyzed on samples MW-02 and MW-48 were within QC acceptance criteria. Chloride/sulfate MSMSDs analyzed on MW-47,

MW-2 and MW-17 were within QC acceptance criteria. MS/MSD analysis is not a requirement of TDS method SM2540C.

Metals batch 208665 MS/MSD analyzed on site sample MW-02 had calcium and sodium recovery outside acceptance criteria. However, the amount of calcium and sodium spiked was less than 4X the unspiked parent sample and may not represent the matrix effect; therefore, this MS/MSD was not used for qualification purposes.

Post Digestion Spike and Serial Dilution

The metals post digestion spike (PDS) analyzed on site sample MW-02 was within laboratory acceptance criteria.

The metals serial dilution analyzed on site sample MW-02 had elevated percent difference for boron (18.6 %D). Based on professional judgement, since the percent difference is less than 30%, data were not qualified.

Laboratory Duplicates

Laboratory duplicate for TDS analyzed on site sample MW-02 was within QC acceptance criteria.

Field Precision

One (1) field duplicate sample was included in this data package (MW-19/Field Duplicate). Both sample and duplicate, MW-19/Field Duplicate, were reported as detected for boron, calcium, chloride, sulfate and TDS. The relative percent difference (RPD) between sample and duplicate was within the QC acceptance criteria of 30% for boron, calcium, chloride, and sulfate. Samples MW-19 and Field Duplicate were qualified as estimated (J) for TDS, 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 Limestone site.

The data user is advised that samples MW-19 and Field Duplicate were qualified as estimated (J) for TDS, 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. Limestone Electric Generating Station, Jewett, Texas.

Table 1 – Cross-Reference between Laboratory and Field Identifications

Laboratory Identification	Field Identification	Matrix Type
HS24030489-01	MW-01	Groundwater
HS24030489-02	MW-02	Groundwater
HS24030489-03	MW-17	Groundwater
HS24030489-04	MW-18	Groundwater
HS24030489-05	MW-19	Groundwater
HS24030489-06	MW-20	Groundwater
HS24030489-07	MW-21	Groundwater
HS24030489-08	MW-22	Groundwater
HS24030489-09	MW-27R	Groundwater
HS24030489-10	MW-28	Groundwater
HS24030489-11	MW-47	Groundwater
HS24030489-12	MW-48	Groundwater
HS24030489-13	MW-49	Groundwater
HS24030489-14	MW-50	Groundwater
HS24030489-15	Field Blank	Water
HS24030489-16	Field Duplicate	Groundwater

Table 2 – Qualified Analytical Data

Field Identification	Analyte	Qualification	Reason for Qualification
MW-19 Field Duplicate	TDS	J	Sample/duplicate precision oustide 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-19/ Field Duplicate	Boron	0.0418	0.0427	2	A
	Calcium	35.7	36.3	2	A
	Chloride	37.6	38.1	1	A
	Sulfate	104	106	2	A
	TDS	358	2,730	154	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 – 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 March 28, 2024, at the NRG Limestone Electric Generating Station (Limestone) in Jewett, 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;
- A4500-F C-11 – Fluoride by ion selective electrode;
- SW-846 6020A – Metals (Boron) 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 and one duplicate groundwater sample were collected and analyzed for one or more of the following: boron, sulfate, fluoride 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 0.3°C. Samples reported in the data package were prepared and analyzed within holding times.

Calibrations

According to the LRC, initial calibration data met EPA, standard method and SW-846 Method requirements.

Metals continuing calibration blanks (CCBs) had detections of boron. Associated samples were reported at concentrations greater than 5X the CCB result and did not require qualification.

Blanks

Boron, sulfate, fluoride and TDS were reported as not-detected in the method blanks.

Laboratory Control Samples

Laboratory control samples (LCS) met the QC acceptance criteria for boron and sulfate.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) for fluoride on sample MW-47 and sulfate on sample MW-02 were within QC acceptance criteria. MS/MSD for boron was analyzed on a sample not associated with the project site and was not used for qualification purposes. MS/MSD analysis is not a requirement of TDS method SM2540C.

Post Digestion Spike and Serial Dilution

The post digestion spike and serial dilution for boron were analyzed on a sample not associated with the project site and was not evaluated.

Laboratory Duplicates

Laboratory duplicates for TDS were within QC acceptance criteria.

Field Precision

One (1) field duplicate sample was included in this data package (MW-19/DUP-01). Both sample and duplicate, MW-19/DUP-01, were reported as detected for TDS. The relative percent difference (RPD) between sample and duplicate was within the QC acceptance criteria of 30% for TDS.

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 Limestone 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. Limestone Electric Generating Station, Jewett, Texas.

Table 1 – Cross-Reference between Laboratory and Field Identifications

Laboratory Identification	Field Identification	Matrix Type
HS24031757-01	MW-02	Groundwater
HS24031757-02	MW-21	Groundwater
HS24031757-03	MW-47	Groundwater
HS24031757-04	MW-50	Groundwater
HS24031757-05	MW-17	Groundwater
HS24031757-06	MW-18	Groundwater
HS24031757-07	MW-19	Groundwater
HS24031757-08	DUP-01	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-19/DUP-01	TDS	264	270	2	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 March 7, 2024 at the NRG Limestone Electric Generating Station (Limestone) in Jewett, 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:

- A4500-F C-11 – Fluoride by ion selective electrode;
- SW-846 6020A – Metals by inductively coupled plasma-mass spectrometry (ICP/MS);
- SW-846 7470A – Mercury by manual cold vapor technique;
- EPA 903.1 – Radium-226 by alpha counting detector method; and
- EPA 904.0 – Radium-228 by radiochemical/precipitation; count by gas-flow proportional beta counter.

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

Four (4) groundwater samples were analyzed for metals, mercury, fluoride and radium-226/228. 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. The SAP also states that radiochemistry data will be compared to laboratory supplied limits instead of the aforementioned limits. 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 of the paperwork filled out properly. The laboratory sample receipt checklist stated the samples were received at temperatures of 3.0°C. Samples reported in the data package were prepared and analyzed within holding times.

Calibrations

According to the LRC, initial and continuing calibration data met EPA and SW-846 Method requirements for fluoride and radium-226/228.

Metals had continuing calibration blanks (CCBs) outside acceptance criteria for mercury and thallium. Thallium was reported as not-detected in the associated samples and was not affected by the CCB detections. Sample MW-48 was qualified as not-detected (U) for mercury, due to sample detection less than 5X the CCB concentration.

Surrogate/Carrier Recoveries

Radium-226/Radium-228 carrier recoveries were within laboratory acceptance criteria.

Blanks

Metals, mercury, fluoride and radium-226/228 were reported as not-detected in the method blanks.

Laboratory Control Samples

Laboratory control samples (LCS) met the QC acceptance criteria for metals, mercury, fluoride and radium-226/228.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) samples for metals and mercury were analyzed on site sample MW-48 and were within QC acceptance criteria. Fluoride MS/MSD was analyzed on

a sample not associated with the CCR monitoring network and was not evaluated. MS/MSDs are not a requirement of the radium methods.

Post Digestion Spike and Serial Dilution
The post digestion spike and serial dilution for metals were within QC acceptance criteria.

Laboratory Duplicates
Laboratory duplicates for Radium-226/228 were within acceptance criteria.

Field Precision
A field duplicate sample was 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 Limestone site.

The data user is advised that sample MW-48 was qualified as not-detected (U) for mercury, due to sample detection less than 5X the CCB concentration.

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. Limestone Electric Generating Station, Jewett, Texas.

Table 1 – Cross-Reference between Laboratory and Field Identifications

Laboratory Identification	Field Identification	Matrix Type
HS24030492-01	MW-47	Groundwater
HS24030492-02	MW-48	Groundwater
HS24030492-03	MW-49	Groundwater
HS24030492-04	MW-50	Groundwater

Table 2 – Qualified Analytical Data

Field Identification	Analyte	Qualification	Reason for Qualification
MW-48	Mercury	U	CCB contamination.

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 June 3, 2024, at the NRG Limestone Electric Generating Station (Limestone) in Jewett, 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;
- A4500-F C-11 – Fluoride by ion selective electrode;
- SW-846 6020A – Metals (Calcium, and Boron) 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

Four (4) groundwater samples, one (1) duplicate groundwater sample and one (1) field blank were analyzed for chloride, sulfate, fluoride, calcium, boron, 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 shown 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 a temperature of 3.3 and 4.2°C. Samples reported in the data package 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.

Chloride/sulfate continuing calibration blanks (CCBs) had detections of chloride. Associated sample FB-01 was reported for chloride at less than 5X the CCB concentration and was qualified as not-detected (U), due to CCB contamination.

Blanks

Chloride, sulfate, fluoride, metals, and TDS were reported as not-detected in the method blanks.

One field blank (FB-01) was collected and analyzed as part of this data package. Estimated detection of calcium (0.273 J mg/L), chloride (0.435 J mg/L) and sulfate (0.406 J mg/L) were identified in the field blank. The chloride result in the field blank was determined to be the result of CCB contamination. Associated samples were reported for calcium and sulfate 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 chloride, sulfate, fluoride, metals and TDS.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) sample for fluoride analyzed on sample MW-48 was within QC acceptance criteria. MS/MSD analysis is not a requirement of TDS method SM2540C.

Metals batch 213127 MS/MSD analyzed on site sample MW-48 had calcium recovery outside acceptance criteria. However, the amount of calcium and sodium spiked was less than 4X the unspiked parent sample and may not represent the matrix effect; therefore, this MS/MSD was not used for qualification purposes.

Chloride/sulfate batch R468893 MS/MSD analyzed on site sample MW-48 had low recovery for sulfate. Sample MW-48 was qualified as estimated low (JL) for sulfate, due to low MS/MSD recovery.

Post Digestion Spike and Serial Dilution

The metals post digestion spike (PDS) analyzed on site sample MW-48 was outside QC limits for calcium. However, the amount of calcium spiked was less than 4X the unspiked parent sample and was not evaluated.

The metals serial dilution analyzed on site sample MW-48 had elevated percent difference for calcium (12.1 %D). Based on professional judgement, since the percent difference is less than 30%, data were not qualified.

Laboratory Duplicates

Laboratory duplicate for TDS analyzed on site sample MW-48 was within QC acceptance criteria.

Field Precision

One (1) field duplicate sample was included in this data package (MW-47/DUP-01). Both sample and duplicate, MW-47/DUP-01, were reported as detected for boron, calcium, chloride, sulfate, fluoride and TDS. The relative percent difference (RPD) between sample and duplicate was within the QC acceptance criteria of 30% for the listed analytes.

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 Limestone site.

The data user is advised that sample FB-01 was reported for chloride at less than 5X the CCB concentration and was qualified as not-detected (U), due to CCB contamination. Sample MW-48 was qualified as estimated low (JL) for sulfate, due to low MS/MSD recovery.

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. Limestone Electric Generating Station, Jewett, Texas.

Table 1 – Cross-Reference between Laboratory and Field Identifications

Laboratory Identification	Field Identification	Matrix Type
HS24060122-01	MW-47	Groundwater
HS24060122-02	MW-48	Groundwater
HS24060122-03	MW-49	Groundwater
HS24060122-04	MW-50	Groundwater
HS24060122-05	FB-01	Water
HS24060122-06	DUP-01	Groundwater

Table 2 – Qualified Analytical Data

Field Identification	Analyte	Qualification	Reason for Qualification
FB-01	Chloride	U	CCB contamination.
MW-48	Sulfate	JL	Low MS/MSD recovery.

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-47/DUP-01	Boron	0.0221	0.0221	0	A
	Calcium	42.6	43.1	1	A
	Chloride	123	120	3	A
	Sulfate	38.9	39.3	1	A
	TDS	700	782	11	A
	Fluoride	0.210	0.200	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 June 3, 2024 at the NRG Limestone Electric Generating Station (Limestone) in Jewett, 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:

- A4500-F C-11 – Fluoride by ion selective electrode;
- SW-846 6020A – Metals by inductively coupled plasma-mass spectrometry (ICP/MS);
- SW-846 7470A – Mercury by manual cold vapor technique;
- EPA 903.1 – Radium-226 by alpha counting detector method; and
- EPA 904.0 – Radium-228 by radiochemical/precipitation; count by gas-flow proportional beta counter.

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

Four (4) groundwater samples were analyzed for metals, mercury, fluoride and radium-226/228. 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. The SAP also states that radiochemistry data will be compared to laboratory supplied limits instead of the aforementioned limits. 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 of the paperwork filled out properly. The laboratory sample receipt checklist stated the samples were received at temperatures of 3.3 and 4.2°C. Samples reported in the data package were prepared and analyzed within holding times.

Calibrations

According to the LRC, initial and continuing calibration data met EPA and SW-846 Method requirements for mercury, fluoride and radium-226/228.

Metals had continuing calibration blanks (CCBs) outside acceptance criteria for chromium and thallium. Thallium was reported as not-detected in the associated samples and was not affected by the CCB detections. Sample MW-48 was qualified as not-detected (U) for chromium, due to sample detection less than 5X the CCB concentration.

Surrogate/Carrier Recoveries

Radium-226/Radium-228 carrier recoveries were within laboratory acceptance criteria.

Blanks

Mercury, fluoride and radium-226/228 were reported as not-detected in the method blanks.

Metals method blank had a detection of thallium (0.000946J mg/L). The associated samples were reported as not-detected for thallium and were not affected by the detection in the method blank.

Laboratory Control Samples

Laboratory control samples (LCS) met the QC acceptance criteria for metals, mercury, fluoride and radium-226/228.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) samples for metals and mercury were analyzed on site sample MW-48 and were within QC acceptance criteria. Fluoride MS/MSD was analyzed on a sample not associated with the CCR monitoring network and was not evaluated. MS/MSDs are not a requirement of the radium methods.

Post Digestion Spike and Serial Dilution

The post digestion spike and serial dilution for metals were within QC acceptance criteria.

Laboratory Duplicates

Laboratory duplicate for Radium-226 was outside acceptance criteria. The Radium-226 duplicate was analyzed on a sample not associated with the project site and was not qualified. The laboratory duplicate for Radium-228 analyzed on MW-47 was outside acceptance criteria. Sample MW-47 was qualified as estimated (J) for Radium-228, due to laboratory duplicate outside acceptance criteria.

Field Precision

A field duplicate sample was 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 Limestone site.

The data user is advised that sample MW-48 was qualified as not-detected (U) for chromium, due to sample detection less than 5X the CCB concentration. Sample MW-47 was qualified as estimated (J) for Radium-228, due to laboratory duplicate 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. Limestone Electric Generating Station, Jewett, Texas.

Table 1 – Cross-Reference between Laboratory and Field Identifications

Laboratory Identification	Field Identification	Matrix Type
HS24060131-01	MW-47	Groundwater
HS24060131-02	MW-48	Groundwater
HS24060131-03	MW-49	Groundwater
HS24060131-04	MW-50	Groundwater

Table 2 – Qualified Analytical Data

Field Identification	Analyte	Qualification	Reason for Qualification
MW-48	Chromium	U	CCB contamination.
MW-47	Radium-228	J	Laboratory duplicate 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.

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 12, 2024, at the NRG Limestone Electric Generating Station (Limestone) in Jewett, 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;
- A4500-F C-11 – Fluoride by ion selective electrode;
- SW-846 6020A – Metals (Calcium, Boron and Sodium) 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

Fourteen (14) groundwater samples, one (1) duplicate groundwater sample and one (1) field blank were analyzed for chloride, sulfate, fluoride, calcium, boron, and TDS. In addition, groundwater sample MW-21 was also analyzed for sodium. 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 5.1 and 5.5°C. Samples reported in the data package were prepared and analyzed within holding times.

Calibrations

According to the LRC, initial and continuing calibration data met EPA, Standard Method (SM) and SW-846 Method requirements for chloride, sulfate, fluoride and TDS.

Metals continuing calibration blanks (CCBs) had detections of sodium. Associated samples were reported at concentrations greater than 5X the CCB result and did not require qualification.

Blanks

Chloride, sulfate, fluoride, metals, and TDS were reported as not-detected in the method blanks.

One field blank (FB-01) was collected and analyzed as part of this data package. An estimated detection of calcium (0.177 J mg/L) was identified in the field blank. Associated samples were reported for calcium 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 chloride, sulfate, fluoride, metals and TDS.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) samples for chloride/sulfate analyzed on site samples MW-20 and MW-02 were within QC acceptance criteria. Fluoride and metals batch 217714 MS/MSDs were analyzed on samples not associated with the CCR monitoring well network and were not evaluated. MS/MSD analysis is not a requirement of TDS method SM2540C.

Metals batch 217656 MS/MSD analyzed on site sample MW-02 had calcium and sodium recovery outside acceptance criteria. However, the amount of calcium and sodium spiked was less than 4X the unspiked parent sample and may not represent the matrix effect; therefore, this MS/MSD was not used for qualification purposes.

Post Digestion Spike and Serial Dilution

The metals post digestion spike (PDS) and serial dilution (SD) for metals batch 217714 were analyzed on a sample not associated with the CCR monitoring well network and were not evaluated.

The metals PDS for batch 217656 had low recovery for sodium. However, the amount of sodium spiked in the PDS was less than 4X the parent sample; therefore, PDS data were not evaluated. The serial dilution for this batch was within QC acceptance criteria.

Laboratory Duplicates

Laboratory duplicates for TDS analyzed on site samples MW-02 and DUP-01 were within QC acceptance criteria.

Field Precision

One (1) field duplicate sample was included in this data package (MW-19/DUP-01). Both sample and duplicate, MW-19/DUP-01, were reported as detected for boron, calcium, chloride, sulfate and TDS. The relative percent difference (RPD) between sample and duplicate was within the QC acceptance criteria of 30% for the listed analytes.

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 Limestone 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. Limestone Electric Generating Station, Jewett, Texas.

Table 1 – Cross-Reference between Laboratory and Field Identifications

Laboratory Identification	Field Identification	Matrix Type
HS24090586-01	MW-01	Groundwater
HS24090586-02	MW-02	Groundwater
HS24090586-03	MW-17	Groundwater
HS24090586-04	MW-18	Groundwater
HS24090586-05	MW-19	Groundwater
HS24090586-06	MW-20	Groundwater
HS24090586-07	MW-21	Groundwater
HS24090586-08	MW-22	Groundwater
HS24090586-09	MW-27R	Groundwater
HS24090586-10	MW-28	Groundwater
HS24090586-11	MW-47	Groundwater
HS24090586-12	MW-48	Groundwater
HS24090586-13	MW-49	Groundwater
HS24090586-14	MW-50	Groundwater
HS24090586-15	DUP-01	Groundwater
HS24090586-16	FB-01	Water

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-19/DUP-01	Boron	0.0411	0.0392	5	A
	Calcium	37.1	34.7	7	A
	Chloride	39.4	39.4	0	A
	Sulfate	93.1	93.1	0	A
	TDS	266	298	11	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 a groundwater sample collected October 24, 2024, at the NRG Limestone Electric Generating Station (Limestone) in Jewett, 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:

- SW-846 6020A – Metals (Boron and Calcium) by inductively coupled plasma-mass spectrometry (ICP/MS).

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

One (1) groundwater sample was collected and analyzed for boron and calcium. 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 3.1°C. Samples reported in the data package were prepared and analyzed within holding times.

Calibrations
According to the LRC, initial and continuing calibration data met SW-846 Method requirements.

Blanks
Boron and calcium were reported as not-detected in the method blanks.

Laboratory Control Samples
Laboratory control samples (LCS) met the QC acceptance criteria for boron and sulfate.

Matrix Spike/Matrix Spike Duplicates
Matrix spike/matrix spike duplicate (MS/MSD) for boron and calcium was analyzed on a sample not associated with the project site and was not used for qualification purposes.

Post Digestion Spike and Serial Dilution
The post digestion spike and serial dilution for boron and calcium were analyzed on a sample not associated with the project site and was not evaluated.

Laboratory Duplicates
Laboratory duplicates were not analyzed as part of this data package.

Field Precision
A field duplicate was not collected as part of this data package.

Summary
The groundwater analytical data are usable for the purpose of determining current concentrations of COCs in this medium at the Limestone 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. Limestone Electric Generating Station, Jewett, Texas.

Table 1 – Cross-Reference between Laboratory and Field Identifications

Laboratory Identification	Field Identification	Matrix Type
HS24101544-01	MW-21	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 September 12, 2024 at the NRG Limestone Electric Generating Station (Limestone) in Jewett, 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:

- A4500-F C-11 – Fluoride by ion selective electrode;
- SW-846 6020A – Metals by inductively coupled plasma-mass spectrometry (ICP/MS);
- SW-846 7470A – Mercury by manual cold vapor technique;
- EPA 903.1 – Radium-226 by alpha counting detector method; and
- EPA 904.0 – Radium-228 by radiochemical/precipitation; count by gas-flow proportional beta counter.

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

Four (4) groundwater samples were analyzed for metals, mercury, fluoride and radium-226/228. 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. The SAP also states that radiochemistry data will be compared to laboratory supplied limits instead of the aforementioned limits. 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 of the paperwork filled out properly. The laboratory sample receipt checklist stated the samples were received at temperatures of 3.5°C. Samples reported in the data package were prepared and analyzed within holding times.

Calibrations

According to the LRC, initial and continuing calibration data met EPA and SW-846 Method requirements for fluoride and radium-226/228.

Metals had continuing calibration blanks (CCBs) outside acceptance criteria for thallium. Sample MW-48 was qualified as not-detected (U) for thallium, due to sample detection less than 5X the CCB concentration.

Surrogate/Carrier Recoveries

Radium-226/Radium-228 carrier recoveries were within laboratory acceptance criteria.

Blanks

Mercury, fluoride and radium-226/228 were reported as not-detected in the method blanks.

Metals method blank had a detection of chromium (0.001037J mg/L). The associated samples, MW-47, MW-48, MW-49 and MW-50 were reported as detected less than 2X the method blank concentration for chromium and were qualified as not-detected (U), due to method blank contamination.

Laboratory Control Samples

Laboratory control samples (LCS) met the QC acceptance criteria for metals, mercury, fluoride and radium-226/228.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) samples for fluoride analyzed on sample MW-47 and mercury analyzed on sample MW-48 and were within QC acceptance criteria. MS/MSDs are not a requirement of the radium methods.

Metals MS/MSD analyzed on site sample MW-48 had low recovery for Thallium. Sample MW-48 was qualified as non-detect estimated (UJ) for thallium, due to low MS/MSD recovery.

Post Digestion Spike and Serial Dilution

The post digestion spike and serial dilution for metals were within QC acceptance criteria.

Laboratory Duplicates

Laboratory duplicates for Radium-226/228 were within acceptance criteria.

Field Precision

A field duplicate sample was 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 Limestone site.

The data user is advised that sample MW-48 was qualified as not-detected (U) for thallium, due to sample detection less than 5X the CCB concentration. Samples, MW-47, MW-48, MW-49 and MW-50 were qualified as not-detected (U) for chromium, due to method blank contamination. Sample MW-48 was qualified as non-detect estimated (UJ) for thallium, due to low MS/MSD recovery.

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. Limestone Electric Generating Station, Jewett, Texas.

Table 1 – Cross-Reference between Laboratory and Field Identifications

Laboratory Identification	Field Identification	Matrix Type
HS24090620-01	MW-47	Groundwater
HS24090620-02	MW-48	Groundwater
HS24090620-03	MW-49	Groundwater
HS24090620-04	MW-50	Groundwater

Table 2 – Qualified Analytical Data

Field Identification	Analyte	Qualification	Reason for Qualification
MW-48	Thallium	UJ	CCB contamination and low MS/MSD recovery.
MW-47 MW-48 MW-49 MW-50	Chromium	U	Method blank contamination.

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 December 5, 2024, at the NRG Limestone Electric Generating Station (Limestone) in Jewett, 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;
- A4500-F C-11 – Fluoride by ion selective electrode;
- SW-846 6020A – Metals (Calcium, and Boron) 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

Four (4) groundwater samples, one (1) duplicate groundwater sample and one (1) field blank were analyzed for chloride, sulfate, fluoride, calcium, boron, 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 1.0°C. Samples reported in the data package were prepared and analyzed within holding times.

Calibrations

According to the LRC, initial and continuing calibration data met EPA, Standard Method (SM) and SW-846 Method requirements.

Blanks

Chloride, sulfate, fluoride, metals, and TDS were reported as not-detected in the method blanks.

One field blank (Field Blank) was collected and analyzed as part of this data package. An estimated detection of calcium (0.112 J mg/L) was identified in the field blank. Associated samples were reported for calcium 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 chloride, sulfate, fluoride, metals and TDS.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) samples for fluoride, chloride and sulfate analyzed on sample MW-49 were within QC acceptance criteria. MS/MSD analysis is not a requirement of TDS method SM2540C.

Metals batch 221538 MS/MSD analyzed on site sample MW-49 had calcium recovery outside acceptance criteria. However, the amount of calcium and sodium spiked was less than 4X the unspiked parent sample and may not represent the matrix effect; therefore, this MS/MSD was not used for qualification purposes.

Post Digestion Spike and Serial Dilution

The metals post digestion spike (PDS) analyzed on site sample MW-49 was outside QC limits for calcium. However, the amount of calcium spiked was less than 4X the unspiked parent sample and was not evaluated.

The metals serial dilution analyzed on site sample MW-49 was within acceptance criteria.

Laboratory Duplicates

Laboratory duplicate for TDS analyzed on site sample MW-49 was within QC acceptance criteria.

Field Precision

One (1) field duplicate sample was included in this data package (MW-48/Field Dup). Both sample and duplicate, MW-48/Field Dup, were reported as detected for boron, calcium, chloride, sulfate, fluoride and TDS. The relative percent difference (RPD) between sample and duplicate was within the QC acceptance criteria of 30% for the listed analytes.

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 Limestone 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. Limestone Electric Generating Station, Jewett, Texas.

Table 1 – Cross-Reference between Laboratory and Field Identifications

Laboratory Identification	Field Identification	Matrix Type
HS24120314-01	MW-47	Groundwater
HS24120314-02	MW-48	Groundwater
HS24120314-03	MW-49	Groundwater
HS24120314-04	MW-50	Groundwater
HS24120314-05	Field Blank	Water
HS24120314-06	Field Dup	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-48/ Field Dup	Boron	0.0209	0.0218	4	A
	Calcium	14.9	14.5	3	A
	Chloride	61.1	61.2	0	A
	Sulfate	82.6	83.7	1	A
	TDS	332	404	20	A
	Fluoride	0.460	0.430	7	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 December 5, 2024 at the NRG Limestone Electric Generating Station (Limestone) in Jewett, 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:

- A4500-F C-11 – Fluoride by ion selective electrode;
- SW-846 6020A – Metals by inductively coupled plasma-mass spectrometry (ICP/MS);
- SW-846 7470A – Mercury by manual cold vapor technique;
- EPA 903.1 – Radium-226 by alpha counting detector method; and
- EPA 904.0 – Radium-228 by radiochemical/precipitation; count by gas-flow proportional beta counter.

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

Four (4) groundwater samples were analyzed for metals, mercury, fluoride and radium-226/228. One (1) field blank and one (1) field duplicate were analyzed for metals, mercury and fluoride. 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. The SAP also states that radiochemistry data will be compared to laboratory supplied limits instead of the aforementioned limits. 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 of the paperwork filled out properly. The laboratory sample receipt checklist stated the samples were received at temperatures of 3.3 and 4.2°C. Samples reported in the data package were prepared and analyzed within holding times.

Calibrations

According to the LRC, initial calibration data met EPA and SW-846 Method requirements for mercury, fluoride and radium-226/228.

Metals had continuing calibration blanks (CCBs) outside acceptance criteria for chromium and mercury. Chromium and mercury were reported as not-detected in the associated samples and were not affected by the CCB detections.

Surrogate/Carrier Recoveries

Radium-226/Radium-228 carrier recoveries were within laboratory acceptance criteria.

Blanks

Metals, mercury, fluoride and radium-228 were reported as not-detected in the method blanks.

Radium-226 method blank had a detection of 0.293 +/- 0.171 pCi/L). The associated samples were reported as either not-detected for Radium-226 or detected greater than 2X the method blank concentration and were not affected by the detection in the method blank.

The field blank was reported as not-detected for metals, mercury and fluoride.

Laboratory Control Samples

Laboratory control samples (LCS) met the QC acceptance criteria for metals, mercury, fluoride and radium-226/228.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) samples for mercury, fluoride and radium-226/228 were analyzed on site sample MW-49 and were within QC acceptance criteria.

Metals batch 221538 MS/MSD analyzed on site sample MW-49 had low recovery for barium and thallium. The amount of barium spiked was less than 4X the unspiked parent sample and may not represent the matrix effect; therefore, barium was not qualified. Thallium was qualified as non-detect estimated low (UJL) for sample MW-49, due to low MS/MSD recovery.

Post Digestion Spike and Serial Dilution

The post digestion spike had low recovery for barium. However, the amount of barium spiked was less than 4X the parent sample and was not used for qualification purposes. The serial dilution for metals was within QC acceptance criteria.

Laboratory Duplicates

Laboratory duplicates for Radium-226/228 were within acceptance criteria.

Field Precision

A field duplicate sample was included in this data package (MW-48/Field Dup). The sample and duplicate, MW-48 and Field Dup, were reported as detected for arsenic, barium, lithium, molybdenum, selenium, and fluoride. The relative percent difference (RPD) between sample and duplicate was within the QC acceptance criteria of 30% for the listed analytes.

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 Limestone site.

The data user is advised that sample MW-49 was qualified as non-detect estimated low (UJL) for Thallium, due to low MS/MSD recovery.

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. Limestone Electric Generating Station, Jewett, Texas.

Table 1 – Cross-Reference between Laboratory and Field Identifications

Laboratory Identification	Field Identification	Matrix Type
HS24120314-01	MW-47	Groundwater
HS24120314-02	MW-48	Groundwater
HS24120314-03	MW-49	Groundwater
HS24120314-04	MW-50	Groundwater
HS24120314-05	Field Blank	Water
HS24120314-06	Field Dup	Groundwater

Table 2 – Qualified Analytical Data

Field Identification	Analyte	Qualification	Reason for Qualification
MW-49	Thallium	UJL	Low MS/MSD recovery.

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-48/ Field Dup	Arsenic	0.00561	0.00546	3	A
	Barium	0.0234	0.0228	3	A
	Lithium	0.00848	0.00815	4	A
	Molybdenum	0.00111J	0.00110J	1	A
	Selenium	0.00332	0.00353	6	A
	Fluoride	0.460	0.430	7	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.

Appendix F
Alternative Source Demonstrations

Texas Commission on Environmental Quality

Waste Permits Division Correspondence Cover Sheet

Date: July 18, 2024
Facility Name: NRG-Limestone Generating Station
Permit or Registration No.: CCR 115

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

Limestone Electric Generating Station
Landfill (Unit 004)

TCEQ Coal Combustion Residuals (CCR) Registration No. CCR115
Industrial Solid Waste Registration No. 32490
EPA Identification No. TXD000837336
RN100542927/CN603207218

July 2024

Prepared For
NRG Texas Power, LLC
Jewett, Texas

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Figure 2 Potentiometric Flow Map – March 2024

Figure 3 METGCD Well Map

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Attachment 1 Boring Logs

Executive Summary

The NRG Texas Power, LLC (NRG) Limestone Electric Generating Station (Station) is located approximately seven miles northwest of Jewett, Texas and approximately 0.5 miles north of the intersection of Limestone, Freestone, and Leon Counties. 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 Station has one active CCR unit, the Landfill (Unit 004), that is managed pursuant to 30 TAC Chapter 352, which is the subject of this Alternative Source Demonstration (ASD).

The 14th semi-annual groundwater detection monitoring event was conducted on March 7, 2024. Verification sampling was performed for this sampling event on March 28th, 2024. Statistical evaluation of the Appendix III monitoring parameters 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 identified. TRC, on behalf of NRG notified the Texas Commission on Environmental Quality (TCEQ) of its intent to prepare an ASD on June 25th, 2024.

As previously described in the ASD for the third 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 2024 semi-annual detection monitoring event analytical 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 Landfill, based on the following lines of reasoning:

- Numerous historical and active natural gas wells and their associated well pads and surface pits are located immediately surrounding and within the footprint of the Landfill. Well pits associated with the natural gas wells contribute spent completion or workover fluids to groundwater that contain constituents that are also CCR Rule Appendix III detection monitoring constituents;
- As shown on the boring logs for the Landfill CCR groundwater monitoring network, lignite and shale seams that contain trace amounts of boron are present at the Landfill and several monitor wells were installed into and screened across these seams;
- The Jewett lignite surface mine is located approximately 1.5 miles south of the Landfill; and
- Natural variations in groundwater geochemistry likely related to changes in pH, ion exchanges, electrical conductivity (EC), and/or salinity.

Therefore, NRG will continue performing semi-annual detection monitoring for the Landfill per 30 TAC Chapter 352.

Section 1
Introduction

1.1 Background

The NRG Texas Power, LLC (NRG) Limestone Electric Generating Station (Station) is located approximately seven miles northwest of Jewett, Texas and approximately 0.5 miles north of the intersection of Limestone, Freestone, and Leon Counties. The Station is bisected by Farm-to-Market Road 39 (FM 39), which runs north-south through the middle of the Station. The western portion of the Station is located in Limestone County and includes the electricity generating portion of the Station. The eastern portion of the Station is located in Freestone County and includes the solid waste disposal area (SWDA).

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). 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 one active CCR-management unit – Landfill (Unit 004).

The Landfill is located within the eastern portion of the Station as shown on Figure 1. The Landfill was constructed in 1980 and is used for the final disposition of CCR. The western half of the Landfill has reached capacity and historically had been closed and capped prior to the effective date of the CCR Rule (October 19, 2015). CCR is currently being placed at the southern part of the eastern portion of the Landfill.

1.1.1 Groundwater Monitoring Program

The certified CCR monitoring well network for the Landfill consists of two upgradient background monitoring wells (MW-27R and MW-28) and eight downgradient monitoring wells (MW-01, MW-02, MW-17, MW-18, MW-19, MW-20, MW-21, and MW-22). Four new downgradient monitor wells (MW-47, MW-46, MW-49, MW-50) were installed in December 2023 and were added to the CCR monitoring network. A groundwater potentiometric surface map was prepared by TRC for the March 2024 semi-annual detection monitoring event and is provided in this ASD as Figure 2. The direction of groundwater flow beneath the Landfill was to the south - southwest.

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 were documented in the *Annual Groundwater Monitoring Report, Landfill (Unit 004)* (ERM 2018a) pursuant to §257.90(e).

The Station has continued to conduct semi-annual detection monitoring at the Landfill per the federal CCR Rule and 30 TAC Chapter 352. As of the March 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 third 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 are the sixth data set statistically evaluated using the new background water quality data set.

1.2 Purpose

TRC prepared this ASD to evaluate two apparent SSIs above background levels: boron and sulfate; 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 Landfill.

2.1 Hydrogeology

Based on the *Geologic Atlas of Texas, Waco Sheet* (BEG 1972), the Station is primarily located within the outcrop of the Calvert Bluff Formation of the Wilcox Group. Minor portions of the southeast corner of the Station are located within the outcrop of the Carrizo Sand and minor portions of the southwest corner of the Station are immediately underlain by alluvium. The Calvert Bluff Formation underlies both the Carrizo Sand and alluvium where present.

The Landfill is located solely within the outcrop of the Calvert Bluff Formation (BEG 1972); however, site investigation data indicate the Landfill may also be located within the outcrop of the Carrizo Sand. The Calvert Bluff Formation consists mostly of mudstone interbedded with fine sandstone, lignite, and ironstone concretions. The mudstone contains silt and very fine sand laminae. The Carrizo Sand consists of very fine sand with partings of silty clay, carbonaceous clay, and ironstone. The Carrizo Sand and the Wilcox Group comprise the Carrizo-Wilcox aquifer, which is recognized by the Texas Water Development Board (TWDB) as a major aquifer system in Texas. The Station is located within the outcrop, or the recharge zone, of the Carrizo-Wilcox aquifer (TWDB 2011).

Site investigations were conducted at the Station by Espey, Huston & Associated in 1986; Radian International in 1996 and 1997; EPRI in 2007, and Environmental Resources Management, Inc. (ERM) in 2016. The results of these investigations were summarized in the October 2017 *Ground Water Monitoring Networks for Coal Combustion Residual (CCR) Rule Compliance* report (ERM 2017b). Surficial material at the Landfill consists of in-situ or reworked clay from the Axtell-Tabor soil association. This clay is the source material for the Landfill liner and cap. Boring logs indicate the surficial material is underlain by interbedded clays, silts, and sands of the Quaternary alluvium, Carrizo Sand, and Calvert Bluff Formation. The boundaries between these units are generally indistinguishable.

2.2 Surrounding Area

2.2.1 Oil and Gas Production Wells

The Station and surrounding vicinity are densely populated with historical and current oil and gas activities consisting primarily of the installation and operation of natural gas production wells. Numerous active natural gas wells and their associated well pads, surface pits, subsurface pipelines, and infrastructure are

located immediately surrounding and within the footprint of the Landfill. Figure 3 is a Mid-East Texas Groundwater Conservation District (METGCD) well map showing the locations of wells in the vicinity of the Landfill. The map is limited to Freestone and Leon counties and does not show wells in Limestone County immediately west of the Landfill. This figure demonstrates the extent to which non-CCR sources of constituents to groundwater pervade the vicinity of the Landfill.

Surface well pits typically contain spent completion fluids or workover fluids. Completion or workover fluids are often brine-containing liquids that are used for well testing and are chemically compatible with the formation fluids; and the spent fluids contained in the pits would have come into contact with formation water. According to the United States Geological Survey (USGS) National Produced Waters Geochemical Database, water co-produced with hydrocarbons (referred to as "produced water" or "formation water") from geologic formations underlying the Site has the following composition (USGS 2018):

- pH ranging from 4.67 standard units (SU) to 5.6 SU;
- Calcium ranging from 12,560 milligrams per liter (mg/L) to 33,520 mg/L;
- Chloride ranging from 56,980 mg/L to 96,200 mg/L;
- Sulfate ranging from 480 mg/L to 1,790 mg/L; and
- Total dissolved solids (TDS) ranging from 98,330 mg/L to 152,970 mg/L.

Considering the composition of the formation water with which the completion or workover fluids came into contact and the typical brine composition of these fluids, potential releases of these fluids would be expected to affect groundwater quality within the immediate vicinity and downgradient of the natural gas well pads and surface pits. Even minor releases of these fluids could increase the concentrations of calcium, chloride, sulfate, and TDS and decrease the pH in the nearby Landfill upgradient and downgradient monitoring wells.

2.2.2 Lignite Mine

Approximately 1.5 miles south of the Landfill is the Jewett lignite mine. The Jewett Mine is a 35,000-acre surface-mine complex. The mine, which is one of the largest in Texas, produced about 5.3 million short tons of lignite per year, according to the U.S. Department of Energy (USDOE). The 31-year-old mine provided lignite for combustion at the Station. In 2018, NRG decided to close the mine and is in the process of performing reclamation.

In 2020, the Jewett Mine had four final pits containing water ranging from approximately 340 million to 1.5 billion gallons. The estimated volumes remaining in the pits in 2020 were as follows:

- E-South Final Pit: 342,000,000 gallons;
- RP-D9 Final Pit: 403,000,000 gallons;
- B-North Final Pit: 375,000,000 gallons; and

- BX Final Pit: 1,290,000,000 gallons.

The pits can have depths greater than 100 feet. The groundwater potentiometric surface is generally understood to be above the bottom of the pits. Multiple seams of lignite at varying depths below the ground surface were removed from these pits during mining.

According to the U.S Department of Energy, Office of Scientific and Technical Information*, Trace elements in Texas Lignite*, 1983, during coal mining and utilization, trace elements are released into the environment. Certain of these elements may have beneficial or neutral effects while other trace elements are potentially harmful. On a national basis, nine of these elements: antimony, arsenic, boron, cadmium, germanium, mercury, molybdenum, selenium, and silver; are commonly found in concentrations greater than the levels present in typical crustal rocks. Because of the conditions under which Gulf Coast lignites were deposited and the nature of lignites in general, the modes of occurrence and concentrations of trace elements in Texas lignites are different from coals found elsewhere in the United States. Based on a limited data set of 38 lignite samples from Arkansas, Mississippi, and Alabama compiled in 1975, Gulf Coast lignites were identified as having higher levels of boron, lanthanum, lead, selenium, uranium, yttrium, and zirconium than other US coal regions.

2.2.3 Lignite/Shale Seams in Monitoring Wells

A review of the boring logs for the Landfill monitoring network identified lignite seams and shale starting at around 37 feet below ground surface (bgs) in some of the borings. As noted on the boring logs in Attachment 1, monitor wells were completed across these lignite and shale seams. Although lignite seams and shale are not noted in all of the borings for the monitoring network, the presences of these minerals in the subsurface would have an effect on groundwater quality for the region.

As noted above, lignite contains trace elements that are released into the environment, which include boron. As presented in the Geological Survey Bulletin 1314-A, *Geochemical Investigations of Some Black Shales and Associated Rocks,* trace elements of boron, barium, gallium, and strontium are found in the upper cretaceous shales of Texas. The following section discusses the geochemistry of the groundwater in the area.

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.

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, 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 concentrations of boron in groundwater at the Landfill, the source of boron is more likely natural rather than anthropogenic. Therefore, the increase in concentration of boron at MW-02, MW-21, and MW-50 can be related to natural variations in groundwater geochemistry related to pH, ion exchanges, EC, and salinity.

2.3.2 Sulfate

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)

Section 3
Alternative Source Demonstration

The 14th semi-annual detection monitoring event was conducted on March 7, 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 identified: boron and pH.

Verification sampling was conducted on March 28, 2024 and NRG notified the TCEQ of its intent to prepare an ASD on June 27, 2024, addressing the apparent SSIs for boron and sulfate.

The UTLs and sampling results for the apparent SSIs are provided in Table 1 below.

Table 1 SSI – March 2024 Semi-annual Detection Monitoring Event

ANALYTE	WELL	LTL	UTL	SAMPLE DATE	VALUE	UNIT
Boron	MW-02	NA	0.44	3/28/2024	1.24	mg/L
Boron	MW-21	NA	0.44	3/28/2024	0.724	mg/L
Boron	MW-50	NA	0.44	3/28/2024	0.691	mg/L
Sulfate	MW-02 (DG)	NA	890	3/28/2024	1,010	mg/l

Notes: DG = Downgradient
UG = Upgradient
mg/L = milligrams per Liter

Alternative sources for the apparent SSIs encompass a range of apparent lines of reasoning and include the following non-CCR sources located in the vicinity of the Landfill:

- The Station and surrounding vicinity are densely populated with historical and current oil and gas activities consisting primarily of natural gas production wells;
- Monitor wells were completed into and screened across both lignite and shale seams that are a source of trace elements such as boron; and
- A lignite mine is located immediately south of the Landfill and mining operations can impact the groundwater quality and pH of groundwater over a long period of time.

Acidity is transported from a mine in groundwater or by surface water runoff that can then infiltrate into groundwater. Through migration, such groundwater, can impact groundwater quality at and in the vicinity of the Landfill. During historical detection monitoring at the Landfill, the pH of groundwater at

MW-21 has remained within the range of 5.0 to 5.6 S.U. As discussed in Section 2.2, low pH (< 6) conditions are favorable for the dissolution of boron from mineral surfaces in the soil and bedrock.

In summary, the apparent SSIs for boron and sulfate for the 14th semi-annual detection monitoring event are most likely related to other non-CCR off-site sources (oil and gas activities or the historic lignite mine), the apparent presence of lignite seams within the screened portion of the monitor wells, or natural variations in groundwater geochemistry (acidic pH conditions) rather than a release to groundwater from the Landfill.

Section 4
Conclusions

Based on statistical evaluation of the March 7, 2024 semi-annual detection monitoring event analytical results, two apparent SSIs: boron and sulphate; were identified for the Landfill. This ASD has identified the following lines of reasoning that support alternative sources for the apparent SSIs:

- Numerous historical and active natural gas wells and their associated well pads and surface pits are located immediately surrounding and within the footprint of the Landfill. Well pits associated with the natural gas wells contribute spent completion or workover fluids to groundwater that contain constituents that are also CCR Rule Appendix III detection monitoring constituents;
- As shown on the boring logs for the Landfill CCR groundwater monitoring network, lignite and shale seams that contain trace amounts of boron are present at the Landfill and several monitor wells were installed into and screened across these seams;
- The Jewett lignite surface mine is located approximately 1.5 south of the Landfill; and
- Natural variations in groundwater geochemistry likely related to changes in pH, ion exchanges, EC, and/or salinity.

Therefore, based on the lines of reasoning presented in this ASD, alternative sources and/or natural variations in groundwater geochemistry, rather than a release from the Landfill have been demonstrated to be responsible for the apparent SSIs observed. Based on this successful ASD, NRG will continue semi-annual detection monitoring for the Landfill per 30 TAC Chapter 352.

Section 5
References

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Figures



PROJECT:
NRG TEXAS POWER, LLC
Limestone Electric Generating Station
Jewett, Texas

TITLE:
Site Map

DRAWN BY:	O. Fonseka	PROJECT No.:	298367.2002.0000
CHECKED BY:	R. Varnell		**FIGURE 1**
APPROVED BY:	R. Varnell		
DATE:	January 2021		

TRC
10550 Richmond Ave.
Suite 210
Houston, TX 77042
Phone: 713.244.1000

FILE: Fig 2 - NRG-LimestoneStation - Landfill_Adjusted.dwg

HOU D:\Users\SRay\Downloads\ Fig 2 - NRG-LimestoneStation - Landfill_Adjusted.dwg 01/07/21



LEGEND

- Landfill Background CCR Locations
- Monitor Well
- Landfill CCR Monitor Well
- ***447.17*** Groundwater Elevation (FT MSL)
- ***NM*** Not Measured
- Groundwater Flow Direction
- Groundwater Elevation Contour - Dashed where Inferred (FT MSL)
- CCR Landfill Boundary

STATE OF TEXAS
ANTHONY DWORACZYK
GEOLOGY
2658
LICENSED
PROFESSIONAL GEOSCIENTIST

7-2-24

NOTE:
GROUNDWATER ELEVATIONS MEASURED BY HMI ON MARCH 2024.

0 690 1,380 FT

1 " = 700 '
1:8,400

N

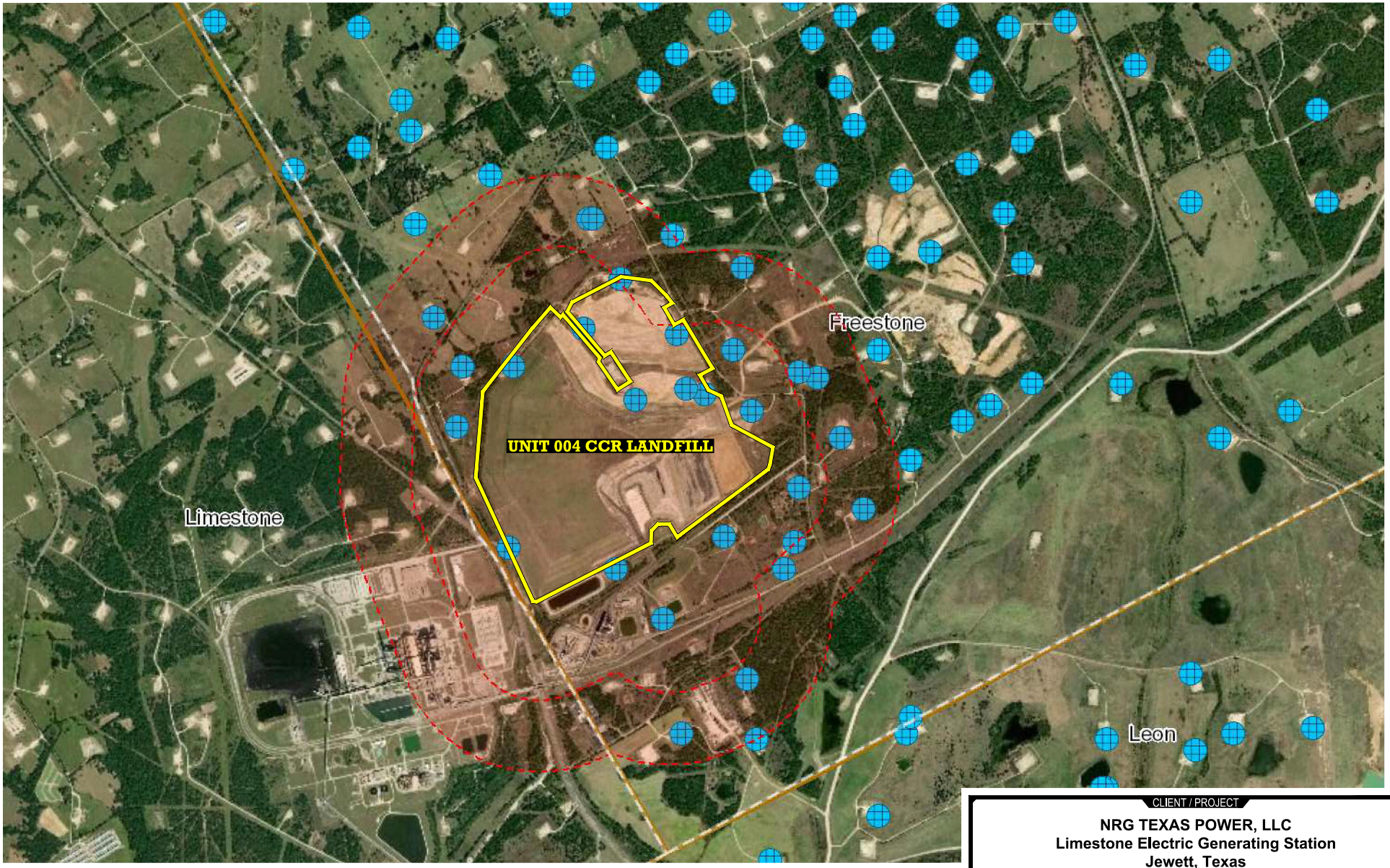
PROJECT:
NRG TEXAS POWER, LLC
LIMESTONE
JEWETT, TEXAS

TITLE:
GROUNDWATER POTENTIOMETRIC SURFACE - MARCH 2024

DRAWN BY:	F. Yarbrough	PROJ. NO.:	585632.0000.0000
CHECKED BY:	J. Atwell		
APPROVED BY:	A. Dworaczyk		**FIGURE 2**
DATE:	July 2024		

TRC
14701 St. Mary's Lane, Suite 500
Houston, TX, 77079
Phone 281.616.0100
www.trcsolutions.com

FILE NO.: 585632_2-2.mxd



July 3, 2019

polygonLayer

Override 1

METGCD Wells

METGCD Wells

Yes

Counties

1:36,112

0 0.3 0.6 1.2 mi

0 0.5 1 2 km

Halff Associates, Inc.
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user

CLIENT / PROJECT

NRG TEXAS POWER, LLC
Limestone Electric Generating Station
Jewett, Texas

TITLE

OIL AND GAS WELL MAP

DRAWN BY: O. Fonseka	REQUEST BY: T. Dworaczyk	PROJECT NO. 528473
DWG. DATE: October 2023	PROJECT-MGR: T. Dworaczyk	

TRC
14701 ST. MARY'S LANE, STE. 500
HOUSTON, TEXAS 77079
PHONE: 281-616-0100
TRCcompanies.com

FIGURE 3

Attachments

ESPEY, HUSTON & ASSOCIATES, INC.
ENGINEERING & ENVIRONMENTAL CONSULTANTS

HOLE NO. MW-1

DRILLING LOG

HOLE NO.	MW-1
LOCATION	Limestone Electric Generating Station
GROUND ELEV.	±418.06'
DRILL ANGLE	0°
COLLAR ELEV.	None
DRILL DIRECTION	Vertical
TOTAL DEPTH	60'
STARTED	10/1/86
ELEV. DATUM	Surface
COMPLETED	10/1/86

	DEPTH	DATE	TIME
FIRST FREE WATER			
BAILED WATER LEVEL			
STATIC WATER LEVEL	4.88	10/7/86	1635

PROJECT NO.	8754
SHEET	1 OF 1
PROJECT/SITE	Houston Lighting & Power
GEO/ENG.	Clyde Smith
CONTRACTOR	Reed & Morris
DRILLER	Ray Reed
RIG MODEL	CFD-1
HOLE TYPE	Rotary
HOLE DIAMETER	5"
DRILL FLUID	H_2O

TESTS	SAMPLES	COMPLETION

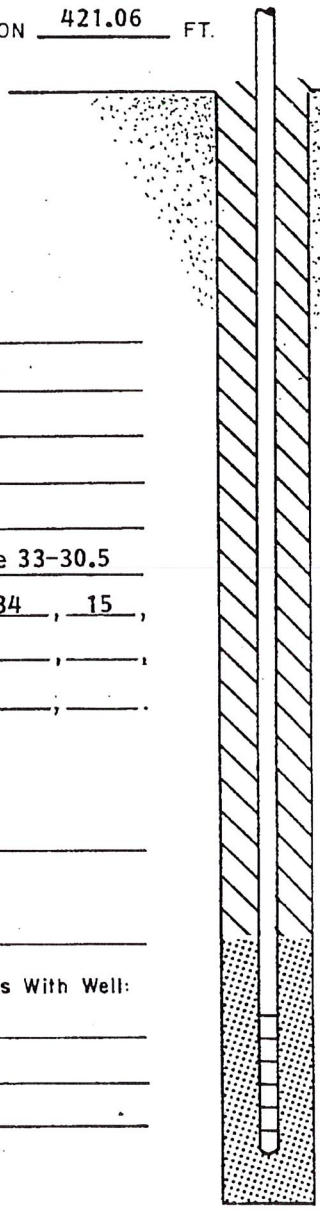
ELEV.	DEPTH	LEGEND	CLASSIFICATION/DESCRIPTION	RECOV.	SAMPLES	DRILLING REMARKS
	5		Brown sand and clay			
	10		Light gray, fine grained sand with minor amounts gray clay and ironstone			
	15					
	20					
	25		Gray silty clay			
	30					
	35		Interbedded brown to tan sand and gray clay			
	40		- very lignitic 39-41'			
	45		Fine gray sand with thin interbeds of gray clay			
	50					
	55		Gray clay			
	60		T.D. at 60'			

WELL COMPLETION RECORD

JOB NO. 8754 WELL NO. MW1 GEOLOGIST Clyde Smith

CLIENT HL&P DRILLER Reed & Morris

TOP OF CASING ELEVATION 421.06 FT. STICK-UP 3.0 FT.



DETAILS OF CONSTRUCTION:

Date Completed 10/1/86

Hole Diameter (in) 7 7/8

Screen Size (in) .010

Screen Length (ft) 20

Casing Size (in) 4

Packer Depth (ft) Bentonite 33-30.5

Centralizer Depths (ft) 54, 34, 15,

_____, _____, _____, _____, _____,

_____, _____, _____, _____, _____.

Completion Technique:

1) Sand Placement Method

Tremie

2) Grout Placement Method

Tremie

Description of Potential Problems With Well:

None

MATERIALS

CEMENT (sks) 12

SAND (ft^3) 8

PVC (ft) 38.5

TOP OF BENTONITE PACK 30.5 FT.

TOP OF SAND PACK 33 FT.

TOP OF SCREEN 35.5 FT.

BOTTOM OF SCREEN 55.5 FT.

BOTTOM OF HOLE 56 FT.

NOTE: ALL DEPTHS ARE REFERENCED TO "DEPTH BELOW GROUND SURFACE"

ESPEY, HUSTON & ASSOCIATES, INC.
ENGINEERING & ENVIRONMENTAL CONSULTANTS

HOLE NO. MW-2

DRILLING LOG

HOLE NO.	MW-2
LOCATION	Limestone Electric Generating Station
GROUND ELEV.	±427.14'
DRILL ANGLE	0°
COLLAR ELEV.	None
DRILL DIRECTION	Vertical
TOTAL DEPTH	60'
STARTED	10/2/86
ELEV. DATUM	Surface
COMPLETED	10/2/86

	DEPTH	DATE	TIME
FIRST FREE WATER			
FAILED WATER LEVEL			
STATIC WATER LEVEL	7.34	10/7/86	1625

PROJECT NO.	8754
SHEET	1 OF 1
PROJECT/SITE	Houston Lighting & Power
GEO/ENG.	Clyde Smith
CONTRACTOR	Reed & Morris
DRILLER	Ray Reed
RIG MODEL	CFD-1
HOLE TYPE	Rotary
HOLE DIAMETER	5"
DRILL FLUID	H_2O

TESTS	SAMPLES	COMPLETION

ELEV.	DEPTH	LEGEND	CLASSIFICATION/DESCRIPTION	RECOV.	SAMPLES	DRILLING REMARKS
	0		Brown sand interbedded with gray to tan clay			
	15		Tan and gray silty clay			
	20		Tan and gray fine grained sand - with interbedded gray clay at 22-26' and 29-30'			
	55		Gray clay			
	60		T.D. at 60'			

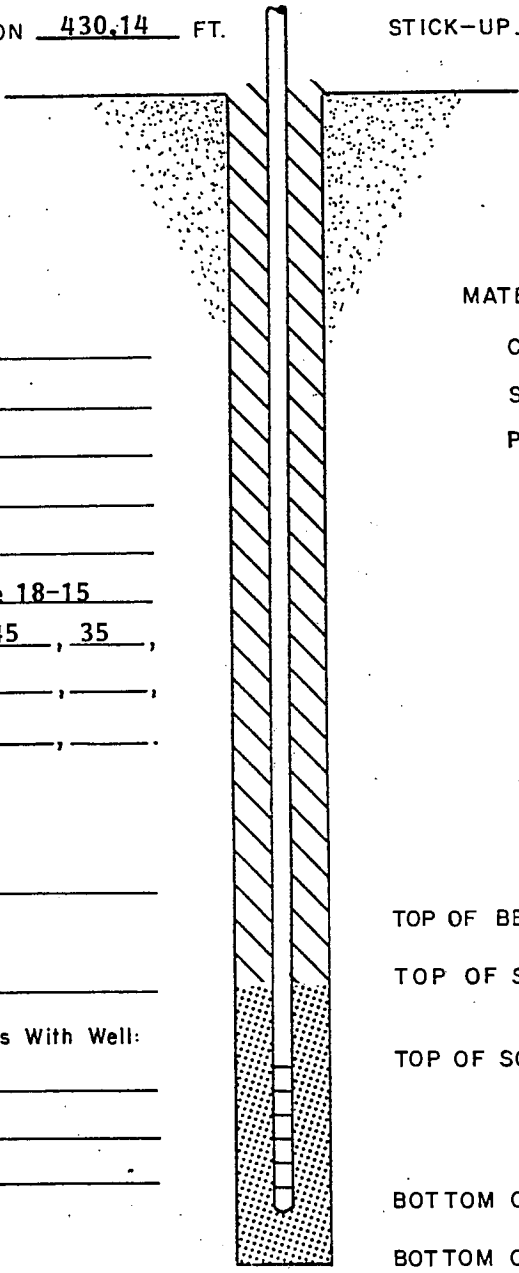
P:\Projects\038249\dwg\2024H(App1).pdf

WELL COMPLETION RECORD

JOB NO. 8754 WELL NO. MW2 GEOLOGIST Clyde Smith

CLIENT HL&P DRILLER Reed & Morris

TOP OF CASING ELEVATION 430.14 FT. STICK-UP 3.3 FT.



DETAILS OF CONSTRUCTION:

Date Completed 10/2/86

Hole Diameter (in) 7 7/8

Screen Size (in) .010

Screen Length (ft) 30

Casing Size (in) 4

Packer Depth (ft) Bentonite 18-15

Centralizer Depths (ft) 55, 45, 35, 25, ____, ____, ____, ____, ____, ____, ____, ____, ____, ____.

Completion Technique:

1) Sand Placement Method

Tremie

2) Grout Placement Method

Tremie

Description of Potential Problems With Well:

None

MATERIALS

CEMENT (sks) 4

SAND (ft^3) 14

PVC (ft) 29.5

TOP OF BENTONITE PACK 15 FT.

TOP OF SAND PACK 18 FT.

TOP OF SCREEN 26.5 FT.

BOTTOM OF SCREEN 56.5 FT.

BOTTOM OF HOLE 57 FT.

NOTE: ALL DEPTHS ARE REFERENCED TO "DEPTH BELOW GROUND SURFACE"

STATE OF TEXAS WELL REPORT for Tracking #178434

Owner:	**NRG Texas Power Limestone Station**	Owner Well #:	**MW-17**
Address:	**Rt. 1 BoX 85 Jewett, TX 75846**	Grid #:	**39-64-1**
Well Location:	**FM 39 N. Jewett, TX 75846**	Latitude:	**31° 05' 14" N**
		Longitude:	**096° 07' 26" W**
Well County:	**Limestone**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Start Date: **4/20/2009** Drilling End Date: **4/20/2009**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**8.5**	**0**	**55**

Drilling Method: **Hollow Stem Auger**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
Filter Pack Intervals:	**38**	**55**	**Gravel**	**20/40**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**0**	**36**	**4, Portland**
	36	**38**	**2, Bentonite**
	38	**55**	**12 Sand**

Seal Method: **Grout**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Alternative Procedure Used**

Water Level: **46 ft.** below land surface on **2009-04-20** Measurement Method: **Unknown**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Advanced Drilling Systems, Inc.**

904 W. Tidwell
Houston, TX 77091

Driller Name: **David Rogers** License Number: **52037**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

From (ft)	To (ft)	Description
0	**1**	**Yellowish red SILTY CLAY with abundant Red Mottling**
1	**5**	**Gray very SILTY SAND moist, with some**
		clayey sand seams
		- very silty
5	**12**	**Gray CLAYEY SAND with abundant strong**
		brown mottling
		- very silty
		- some black lignite seams
		- wet
		- abundant yellowish brown mottling
		- abuundant strong brown
		- very moist
12	**16**	**Gray, very SILTY SAND**
		- very moist
		- very fine grained
		- some yellowish brown mottling
		- very silty

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
2	**New**	**PVC**	**Casing 0-40 sch-40**
2	**New**	**PVC**	**Slotted 40-55 0.01**

16-20: Strong brown SILTY CLAY with abundant silty sand seams
- some yellowish brown clayey sand seams
20-26: Yellowish brown CLAYEY SAND with
abundant gray hard brittle clay seams
- some brownish yellow limonitic iron seams
- abundant dark gray clay seams
- very moist
- very silty
26-31: Brown very silty sand, very fine grained
31-42: Brown CLAYEY SAND with abundant
gray clay seams
- very moist
- some muscovite flakes
- abundant dark gray clay seams
- very moist
- some strong brown silty sand seams
- very silty
- very abundant dark gray seams
42-53: Dark gray SILTY SAND, fine grained,
abundant dark gray silty clay seams
- very silty
- saturated @ 46 bgs.
- abundant dark gray silty clay seams
- very silty
- very moist
53-55: Very dark gray CLAY, firm
- some light gray silt seams
- lignite seams

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

ERM Environmental Resources Management

MW-19
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-19 Date Drilled 2016-05-17

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 35.40 ' Boring Diam. 9.00 "

N. Coord. 10507460.00 ' E. Coord. 3574645.00 ' Surface Elevation 440.94 ' Ft. MSL Datum

Screen: Type Schedule 40 PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type Schedule 40 PVC Diam. 2.00 " Length 25.00 ' Sump Length 0.40 '

Top of Casing Elevation 443.79 ' Stickup 2.85 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Drilling Services Driller Bruce Milton

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type		Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
440.94	0					0-5	0-1.6	SANDY CLAY: Yellowish-brown (10YR 6/4), dry, crumbly, hard, sand is less than 10 percent, PP=4.0 TSF
440							1.6-6.2	SILTY SAND: Light yellowish-brown (10YR 6/4), dry to damp, firm to hard, semi-plastic; thinly laminated. PP=3.5-4.5 TSF
	5					5-10		
435							6.2-8	SANDY CLAY: Light yellowish-brown (10YR 6/4) to yellowish-brown (10YR 5/8), dry to damp, stiff to hard; semi-plastic; thinly laminated.
							8-10	No Recovery
	10					10-15	10-18.5	SILTY SAND: Dark yellowish-brown (10YR 4/6), dry to damp becoming wet at 15.5 to 15.8 feet then dry to damp 15.8 to 18, stiff to hard; soft, friable; thinly bedded. @16.8 feet thin lens of rocks, sand is well sorted;. rootlets at 10.3 feet.
430								
	15					15-20		
425								
							18.5-20	No Recovery
	20							

STATE OF TEXAS 10/10/16 James R. Davidson Geology 10493 LICENSED PROFESSIONAL GEOSCIENTIST

ERM Environmental Resources Management

MW-19
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-19 Date Drilled 2016-05-17

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 35.40 ' Boring Diam. 9.00 "

N. Coord. 10507460.00 ' E. Coord. 3574645.00 ' Surface Elevation 440.94 ' Ft. MSL Datum

Screen: Type Schedule 40 PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type Schedule 40 PVC Diam. 2.00 " Length 25.00 ' Sump Length 0.40 '

Top of Casing Elevation 443.79 ' Stickup 2.85 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Drilling Services Driller Bruce Milton

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type		Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
420	20					20-25	20-34	SILTY SAND: Light olive-brown (2.5Y 5/3), damp becoming moist at 25 to 25.8 feet, damp 25.5 to 28 feet, damp to moist 28 to 30 feet, soft, friable, thinly bedded; some lenticular clay nodules from 30 to 34 feet.
415	25					25-30		
410	30					30-35		
405	35						34-35.4	No Recovery T.D. = 35.40 '
	40							

STATE OF TEXAS 10/14/16 James R. Davidson Geology 10493 LICENSED PROFESSIONAL GEOSCIENTIST

ERM Environmental Resources Management

MW-20
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-20 Date Drilled 2016-05-17

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 39.40 ' Boring Diam. 9.00 "

N. Coord. 10507730.00 ' E. Coord. 3574995.00 ' Surface Elevation 442.12 ' Ft. MSL Datum

Screen: Type Schedule 40 PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type Schedule 40 PVC Diam. 2.00 " Length 29.00 ' Sump Length 0.40 '

Top of Casing Elevation 445.11 ' Stickup 2.99 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Driling Services Driller Bruce Milton

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type	Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
442.12	0				0-5	0-0.7	SANDY CLAY: Mottled light yellowish-brown (10YR 5/4) and light brownish-gray (10YR 6/2), dry, firm, brittle; sand less than 10 percent, thinly laminated.
						0.7-1.6	SILTY SAND: Yellowish-brown (10YR 5/4), dry, soft, friable; sand is fine grained, subangular, silt approximately 10 percent.
440						1.6-4	SANDY CLAY: Mottled light yellowish-brown (10YR 5/4) and light brownish-gray (10YR 6/2), dry, firm to stiff, brittle; sand less than 10 percent, thinly laminated. PP=2.5-3.5 TSF
						4-5	No Recovery
	5				5-10	5-8.5	SANDY CLAY: Very dark brown (7.5YR 2.3/3), dry, hard, brittle. PP=4.5+TSF @6.8 feet becomes strong brown (7.5YR 4/6); @7.8 feet becomes light olive brown (2.5 Y 5/3) with some angular rock fragments.
435							
						8.5-10	No Recovery
	10				10-15	10-25	SILTY SAND: Light yellowish-brown (2.5Y 6/4) and light gray (2.5Y 7/2) interbedded, dry, friable, well sorted, silt approximately 10 percent. @13.1 feet possible cross-bedding with rip-up (clay) clasts. @17.8 becomes damp, silt content increases to approximately 30 percent.
430							
	15				15-20		
425							
	20						

STATE OF TEXAS
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10/14/16

ERM Environmental Resources Management

MW-20 DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-20 Date Drilled 2016-05-17

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 39.40 ' Boring Diam. 9.00 "

N. Coord. 10507730.00 ' E. Coord. 3574995.00 ' Surface Elevation 442.12 ' Ft. MSL Datum

Screen: Type Schedule 40 PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type Schedule 40 PVC Diam. 2.00 " Length 29.00 ' Sump Length 0.40 '

Top of Casing Elevation 445.11 ' Stickup 2.99 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Driling Services Driller Bruce Milton

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type	Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
	20				20-25		
420							
	25				25-30	25-39.4	SILTY SAND: Olive-brown (2.5Y 4/4), damp to wet (becomes wet at 30-30.8 and 35-35.5 feet), soft, friable. Thinly laminated clay lenses at 37.7 to 37.8 ft. and 38.8 to 39.1 ft., damp, brittle.
415							
	30				30-35		
410							
	35				35-39.4		
405							
	40						T.D. = 39.40 '

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ERM Environmental Resources Management

MW-21
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-21 Date Drilled 2016-05-18

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 35.40 ' Boring Diam. 9.00 "

N. Coord. 10508050.00 ' E. Coord. 3575406.00 ' Surface Elevation 443.46 ' Ft. MSL Datum

Screen: Type Schedule 40 PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type Schedule 40 PVC Diam. 2.00 " Length 25.00 ' Sump Length 0.40 '

Top of Casing Elevation 446.35 ' Stickup 2.89 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Drilling Services Driller Bruce Milton

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type	Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
443.46	0				0-5	0-0.8	SANDY CLAY: Mottled yellowish-brown (10YR 5/4) and yellowish-red (10 YR 4/6), dry, stiff, brittle. PP=3.5 TSF
						0.8-1.2	SILTY SAND: Strong brown (7.5 YR 5/6), dry, soft, friable, well sorted. Silt approx. 10 percent.
						1.2-2.9	SANDY CLAY: Dark yellowish-brown interlaminated with light brownish-gray (10YR 6/2), dry to damp, firm, semi-plastic. PP=2.5 TSF
440						2.9-8	SILTY SAND: Strong brown (7.5 YR 5/6) to yellowish-brown (10YR 4/4), dry, soft, friable, well sorted. Silt approx. 10 percent. @6.1 becomes dark brown (7.5YR 7/2).
	5				5-10		
435						8-10	No Recovery
	10				10-15	10-19.5	SILTY SAND: Mottled dark yellowish-brown (10YR 4/4) and gray (10YR 5/1)dry, soft, friable, silt content about 40 percent. @11.2 feet becomes yellowish-brown (10YR 5/6) interlaminated with gray (10YR 5/1); @13.1 feet silt content decreases to 10 percent.
430							
	15				15-20		
425						19.5-24.5	SILTY SAND: Yellowish-brown (10YR 5/4), moist, soft, friable, thinly bedded with well developed partings. @22.0 to 22.5 and 23.0 to 24.5 feet silt content increases to 40 percent.
	20						

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ERM Environmental Resources Management

MW-21
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-21 Date Drilled 2016-05-18

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 35.40 ' Boring Diam. 9.00 "

N. Coord. 10508050.00 ' E. Coord. 3575406.00 ' Surface Elevation 443.46 ' Ft. MSL Datum

Screen: Type Schedule 40 PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type Schedule 40 PVC Diam. 2.00 " Length 25.00 ' Sump Length 0.40 '

Top of Casing Elevation 446.35 ' Stickup 2.89 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Drilling Services Driller Bruce Milton

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type		Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
420	20					20-25		
	25					25-30	24.5-31.4	SILTY SAND: Olive brown (2.5Y 4/5), moist, soft, friable, thinly bedded with well developed partings.
415	30					30-35.4		
410	35						31.4-31.9 31.9-35.4	CLAY: Interlaminated with silty sand. Clay is black (7.5YR 2.5/1), damp, semi-plastic, soft. Silty sand is brown (10YR 4/3), damp, soft, friable. SILTY SAND: mottled yellowish brown (10YR 5/6) and light brownish-gray (10YR 6/2), damp becomes wet at 32.2 to 33 feet, laminated.
405	40							T.D. = 35.40 '

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ERM Environmental Resources Management

MW-22
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-22 Date Drilled 2016-05-18

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 35.00 ' Boring Diam. 9.00 "

N. Coord. 10508270.00 ' E. Coord. 3575669.00 ' Surface Elevation 444.68 ' Ft. MSL Datum

Screen: Type Schedule 40 PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type Schedule 40 PVC Diam. 2.00 " Length 24.50 ' Sump Length 0.40 '

Top of Casing Elevation 447.59 ' Stickup 2.91 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Drilling Services Driller Bruce Milton

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type	Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
444.68	0				0-5	0-1.6	SILTY SAND: Strong brown (7.5YR 5/6), dry, soft, friable.
						1.6-3.5	SANDY CLAY: Interlaminated dark yellowish-brown (10YR 4/4) and light brownish-gray (10YR 6/2), damp, semi-plastic. PP=2.5 TSF
						3.5-5	No Recovery
440	5				5-10	5-7.5	SILTY SAND: Strong brown (7.5YR 5/6), dry, soft, friable.
						7.5-8.5	SANDY CLAY: Interlaminated dark yellowish-brown (10YR 4/4) and light brownish-gray (10YR 6/2), damp, semi-plastic.
						8.5-10	No Recovery
435	10				10-15	10-19	SILTY SAND: Interlaminated gray (7.5YR 6/1 and strong brown (7.5 YR 5/6), damp, loose, friable, well sorted, well developed partings. @11.0 to 11.6 bioturbation; @12.5 lenticular clay nodules (interclasts); @13.0 silt content increases to 40 percent.
430	15				15-20		
						19-24	SILTY SAND: Interlaminated silty sand and sandy clay. Silty sand as above. Sandy clay is strong brown, dry to damp, crumbly.
425	20						

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ERM Environmental Resources Management

MW-22
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-22 Date Drilled 2016-05-18

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 35.00 ' Boring Diam. 9.00 "

N. Coord. 10508270.00 ' E. Coord. 3575669.00 ' Surface Elevation 444.68 ' Ft. MSL Datum

Screen: Type Schedule 40 PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type Schedule 40 PVC Diam. 2.00 " Length 24.50 ' Sump Length 0.40 '

Top of Casing Elevation 447.59 ' Stickup 2.91 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Drilling Services Driller Bruce Milton

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type		Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
	20					20-25		
420	25					25-30	24-30	SILTY SAND: Brown, moist to wet, soft, friable, laminated. breaks along parting surfaces. Silt content approx. 10 percent. @25.7 feet, silt content increases to 40 percent. @28.1 silt content decreases to 10 percent.
415	30					30-35	30-31	SILTY SAND: Brown, moist to wet, soft, friable, laminated. breaks along parting surfaces. Silt content approx. 10 percent.
							31-31.8	SILTY SAND: Brown, moist to wet, soft, friable, laminated. breaks along parting surfaces. Silt content approx. 40 percent.
							31.8-35	SILTY SAND: Brown, damp to moist, soft, friable, laminated. breaks along parting surfaces. Silt content approx. 10 percent.
410	35							T.D. = 35.00 '
405	40							

STATE OF TEXAS 10/10/16 James R. Davidson Geology 10493 LICENSED PROFESSIONAL GEOSCIENTIST

ERM Environmental Resources Management

MW-23
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-23 Date Drilled 2016-04-13

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 45.00 ' Boring Diam. 9.00 "

N. Coord. 10505630.00 ' E. Coord. 3571983.00 ' Surface Elevation 434.36 ' Ft. MSL Datum

Screen: Type PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type PVC Diam. 2.00 " Length 30.00 ' Sump Length 0.40 '

Top of Casing Elevation 437.25 ' Stickup 2.89 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

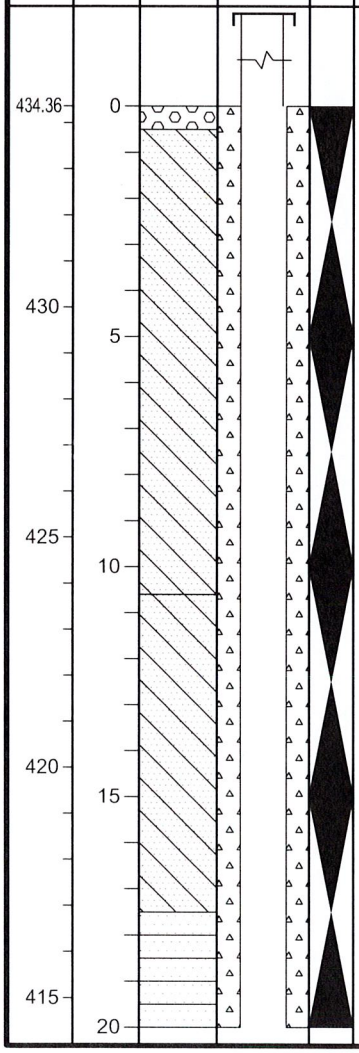
Drilling Company Best Drilling Services Driller Sonny Tobola

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer



Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
0-5	0-0.5	GRAVEL: Roadbase - crushed limestone with silt matrix. greenish-gray (Gley 1/6/10Y).
	0.5-10.6	SANDY CLAY: Fill Material - Light yellowish- brown (10YR 6/4), dry, thinly laminated, brittle. PP =1.0 TSF
5-10		
10-15	10.6-10.61	LIGNITE: Black organic plant material consisting of decaying rootlets and grass.
	10.61-17.5	SANDY CLAY: Dark red (2.5 YR 3/6), dry, firm to stiff, rootlets at 13.4 ft., becomes thinly bedded at 14.3 ft. Sharp basal contact.
15-20		
	17.5-27.4	SILTY SAND: Very dark grayish-brown (10YR 3/2) grading down to light gray (10YR 7/1), soft, friable; thinly bedded, sand is fine grained, well sorted, subangular to angular. @23.1 becomes mottled with dark yellowish-brown.

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ERM Environmental Resources Management

MW-23
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-23 Date Drilled 2016-04-13

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 45.00 ' Boring Diam. 9.00 "

N. Coord. 10505630.00 ' E. Coord. 3571983.00 ' Surface Elevation 434.36 ' Ft. MSL Datum

Screen: Type PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type PVC Diam. 2.00 " Length 30.00 ' Sump Length 0.40 '

Top of Casing Elevation 437.25 ' Stickup 2.89 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

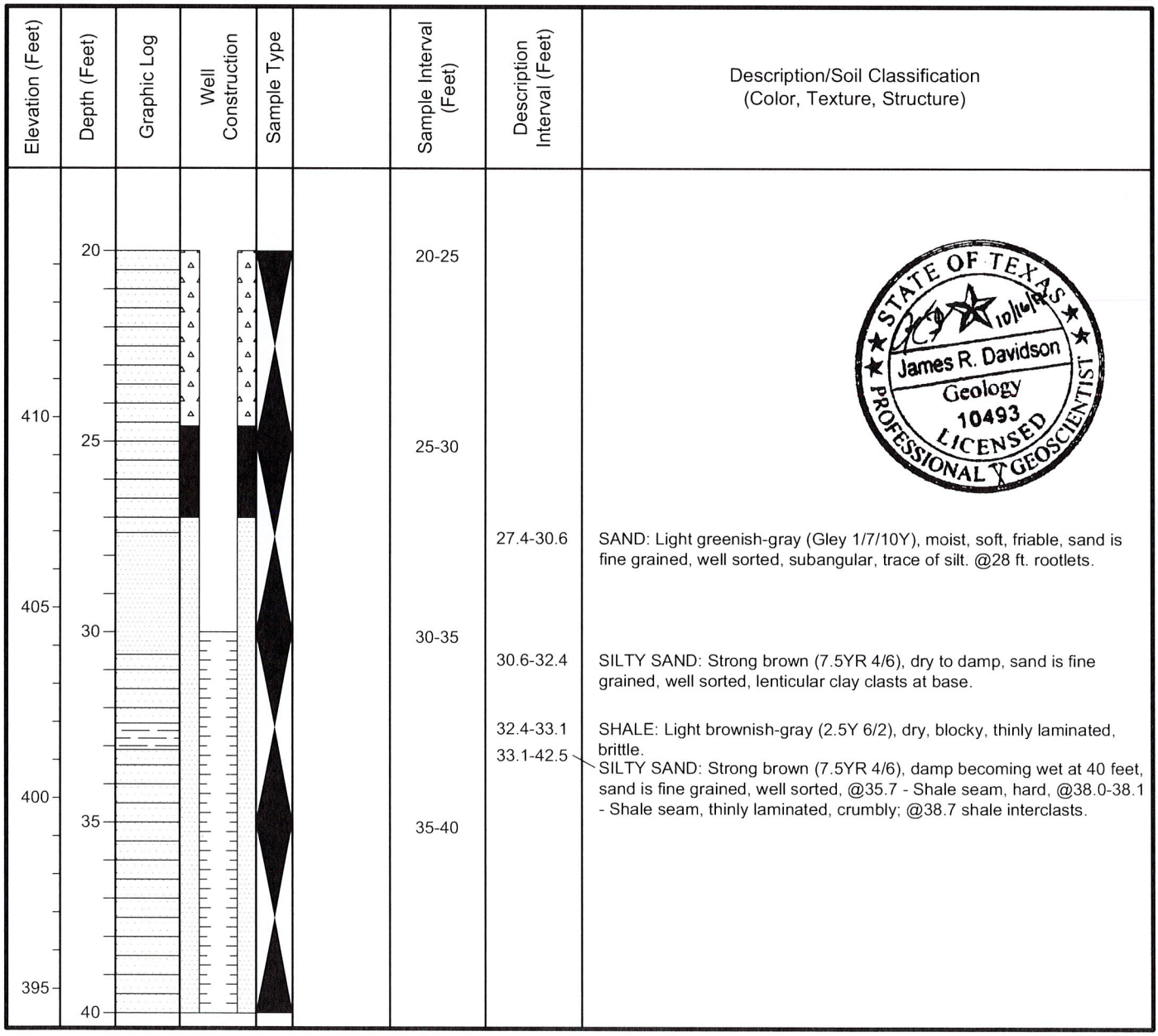
Drilling Company Best Drilling Services Driller Sonny Tobola

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer



ERM Environmental Resources Management

MW-23
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-23 Date Drilled 2016-04-13

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 45.00 ' Boring Diam. 9.00 "

N. Coord. 10505630.00 ' E. Coord. 3571983.00 ' Surface Elevation 434.36 ' Ft. MSL Datum

Screen: Type PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type PVC Diam. 2.00 " Length 30.00 ' Sump Length 0.40 '

Top of Casing Elevation 437.25 ' Stickup 2.89 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Drilling Services Driller Sonny Tobola

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type		Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
	40					40-45		
							42.5-43.3	SHALE: Light brownish-gray (2.5Y 6/2), dry, blocky, thinly laminated, brittle.
							43.3-45	Silty Sand
390	45							T.D. = 45.00 '
385	50							
380	55							
375	60							

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10/14/16

ERM Environmental Resources Management

MW-28 DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-28 Date Drilled 2016-04-14

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 70.00' Boring Diam. 9.00 "

N. Coord. 10511130.00 ' E. Coord. 3573967.00 ' Surface Elevation 474.57 ' Ft. MSL Datum

Screen: Type PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type PVC Diam. 2.00 " Length 50.00 ' Sump Length 0.40 '

Top of Casing Elevation 477.52 ' Stickup 2.95 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Drilling Services Driller Sonny Tobola

Drilling Method Hollow Stem Auger Log By Don Whitley

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type	Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
474.57	0				0-5	0-5	NOT SAMPLED: Hydrovac
470	5				5-10	5-18	SANDY CLAY: 7.5YR/5/4 Brown and 7.5YR/7/1 Light Gray, thinly laminated, damp, semi- to non-plastic, 2.0-2.5 TSF, sand approx. 30 %: fine grained, subangular. @ 10 ft, sand content decreases to approx. 10%, breaks along laminae.
465	10				10-15		
460	15				15-20		
455	20					18-18.4	CLAYEY SAND: 7.5YR/5/4 Brown and 7.5YR/7/1 Light Gray, thinly bedded, fine grained, uncemented, cohesive, well sorted, subangular, clay approx. 40% - dry, damp.
						18.4-22.5	SANDY CLAY: 7.5YR/5/4 Brown and 7.5YR/7/1 Light Gray, thinly laminated, damp, semi- to non-plastic, 2.0-2.5 TSF, sand approx. 30% - fine grained, subangular, lenticular pockets of sand - fine grained, subangular, 7.5YR/5/8 strong brown.

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ERM Environmental Resources Management

MW-28 DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-28 Date Drilled 2016-04-14

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 70.00' Boring Diam. 9.00 "

N. Coord. 10511130.00 ' E. Coord. 3573967.00 ' Surface Elevation 474.57 ' Ft. MSL Datum

Screen: Type PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type PVC Diam. 2.00 " Length 50.00 ' Sump Length 0.40 '

Top of Casing Elevation 477.52 ' Stickup 2.95 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

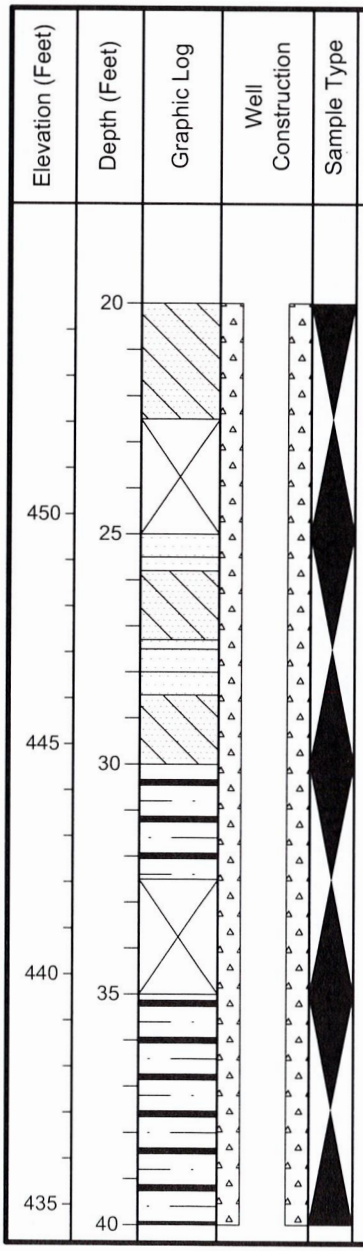
Drilling Company Best Drilling Services Driller Sonny Tobola

Drilling Method Hollow Stem Auger Log By Don Whitley

SKETCH MAP

NOTES

PP = Pocket Penetrometer



Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
20-25		
	22.5-25	No Recovery
25-30	25-25.8	SILTY SAND: Gley 1/7/10Y Light Greenish Gray, fine grained, subangular to subrounded, uncemented, well sorted, damp to moist, cohesive, silt approx. 10%
	25.8-27.3	SANDY CLAY: 7.5YR/5/4 Brown and 7.5YR/7/1 Light Gray, thinly laminated, damp, semi- to non-plastic, 2.0-2.5 TSF, sand approx. 30% - fine grained, subangular, lenticular pockets of sand - fine grained, subangular, 7.5YR/5/8 strong brown.
	27.3-28.5	SILTY SAND: Gley 1/7/10Y Light Greenish Gray, fine grained, subangular to subrounded, uncemented, well sorted, dry to damp, cohesive, silt approx. 10%
	28.5-30	SANDY CLAY: 7.5YR/5/4 Brown and 7.5YR/7/1 Light Gray, thinly laminated, damp, semi- to non-plastic, 2.0-2.5 TSF, sand approx. 30% - fine grained, subangular, lenticular pockets of sand - fine grained, subangular, 7.5YR/5/8 strong brown.
30-35	30-32.5	INTERBEDDED CLAY AND SAND: Silty Sand - 30-30.3 ft, 31.2-31.4 ft, 32.2-32.4 ft. - Gley 1/7/10Y Light Greenish Gray, fine grained, subangular to subrounded, uncemented, well sorted, damp to moist, cohesive, silt approx. 10%. Sandy Clay - 30.3-31.2 ft, 31.4-32.2 ft, 32.4-32.5 ft. - 7.5YR/5/4 Brown and 7.5YR/7/1 Light Gray, thinly laminated, damp, semi- to non-plastic, 2.0-2.5 TSF, sand approx. 30% - fine grained, subangular, lenticular pockets of sand - fine grained, subangular, 7.5YR/5/8 strong brown.
	32.5-35	No Recovery
35-40	35-40	INTERBEDDED CLAY AND SAND: Thinly bedded, alternating Silty Sand and Shale. Silty Sand - 7.5YR/5/8 Strong brown, fine grained, uncemented, well sorted, subangular, dry to damp. Shale - 7.5YR/5/1 Gray, non-plastic, dry, 2.0 TSF, trace sand.

STATE OF TEXAS 10/16/16 James R. Davidson Geology 10493 LICENSED PROFESSIONAL GEOSCIENTIST

ERM Environmental Resources Management

MW-28
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-28 Date Drilled 2016-04-14

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 70.00' Boring Diam. 9.00 "

N. Coord. 10511130.00 ' E. Coord. 3573967.00 ' Surface Elevation 474.57 ' Ft. MSL Datum

Screen: Type PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type PVC Diam. 2.00 " Length 50.00 ' Sump Length 0.40 '

Top of Casing Elevation 477.52 ' Stickup 2.95 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Drilling Services Driller Sonny Tobola

Drilling Method Hollow Stem Auger Log By Don Whitley

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type		Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
	40					40-45	40-45	INTERBEDDED CLAY AND SAND: Shale - 40-40.4 ft, 40.8-41.1 ft, 41.4-43.8 ft, 44.2-45 ft. - non-plastic, thinly laminated, breaks along laminae, trace sand. Silty Sand - 40.4-40.8 ft, 41.1-41.4 ft, 43.8-44.2 ft. - 7.5YR/5/8 Strong brown, fine grained, uncemented, subangular, well sorted, damp to moist.
430	45					45-50	45-50	INTERBEDDED CLAY AND SAND: Thinly bedded, alternating Silty Sand and Shale. Silty Sand - 7.5YR/6/1 Gray, fine grained, uncemented, subangular, well sorted, dry to damp. Shale - Gley 1/2.5/10Y Greenish Black, non-plastic, dry, trace sand.
425	50					50-55	50-56.6	SHALE: Gley 1/2.5/10Y Greenish Black, non-plastic, dry to damp, thinly laminated, breaks along laminae, trace sand, has thin beds of fine grained sand throughout. @ 52.9-53.2 Silty Sand seam - 7.5YR/4/3 Brown, fine grained, uncemented, subangular, wet.
420	55					55-60		
							56.6-57.1	SILTY SAND: 7.5YR/4/2 Brown, fine grained, uncemented, subangular, wet to saturated
							57.1-58.5	SHALE: Gley 1/2.5/10Y Greenish Black, non-plastic, dry to damp, thinly laminated, breaks along laminae, trace sand, has thin beds of fine grained sand throughout
							58.5-60	No Recovery
415	60							

STATE OF TEXAS 10/14/16 James R. Davidson Geology 10493 LICENSED PROFESSIONAL GEOSCIENTIST

ERM Environmental Resources Management

MW-28
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-28 Date Drilled 2016-04-14

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 70.00' Boring Diam. 9.00 "

N. Coord. 10511130.00 ' E. Coord. 3573967.00 ' Surface Elevation 474.57 ' Ft. MSL Datum

Screen: Type PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type PVC Diam. 2.00 " Length 50.00 ' Sump Length 0.40 '

Top of Casing Elevation 477.52 ' Stickup 2.95 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Drilling Services Driller Sonny Tobola

Drilling Method Hollow Stem Auger Log By Don Whitley

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type		Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
410	60					60-65	60-60.7 60.7-69.5	INTERBEDDED CLAY AND SAND: Thinly alternating Silty Sand and Shale. Silty Sand - 7.5YR/6/1 Gray, fine grained, uncemented, subangular, well sorted, dry to damp. Shale - Gley 1/2.5/10Y Greenish Black, non-plastic, dry, trace sand. SHALE: Gley 1/2.5/10Y Greenish Black, non-plastic, dry to damp, thinly laminated, breaks along laminae, trace sand, has thin beds of fine grained sand throughout. @ 61.5-61.7 - Silty Sand lense, 7.5YR/4/2 Brown
405	65					65-70		
400	70							T.D. = 70.00'
395	75							
	80							

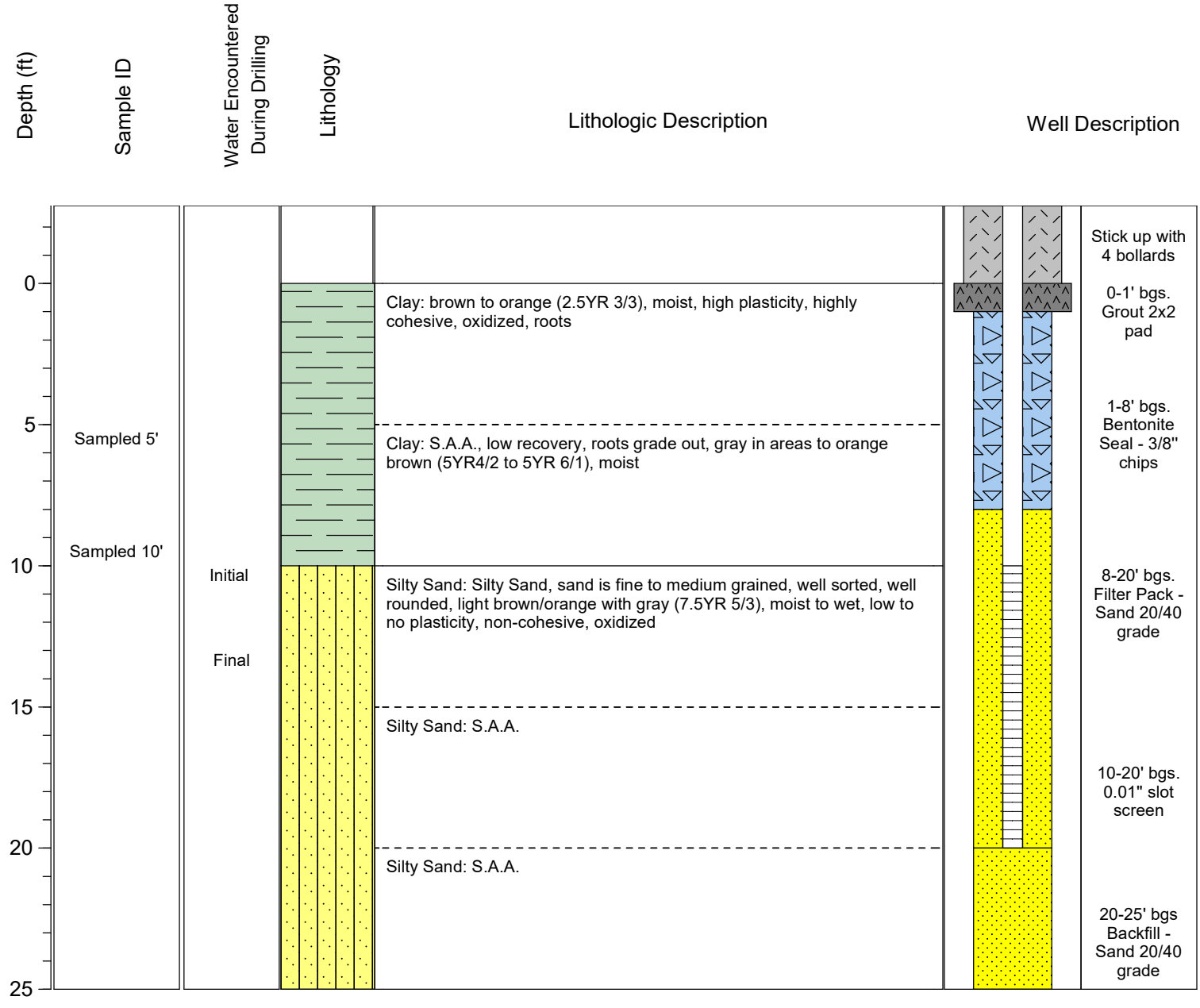
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James R. Davidson
Geology
10493
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PROFESSIONAL GEOSCIENTIST
10/16/16

BORING LOG and WELL CONSTRUCTION

MW-50

Client: NRG	TRC Project #: 528473
Site: Limestone	Start Date: 12.13.23 - 0730
Address: 3964 FM 39, Jewett, TX 7584	Finish Date: 12.13.23 - 0850
Project: CCR - Well Installation	Permit #: -
Drilling Method: Hollow Stem Auger (HSA)	TRC Site Rep.: Jessica Atwell
Boring Depth (ft bgs): 25'	TRC Reviewer: Tony Dworaczyk
Boring Diameter (in): 8"	X-Y Coord. System: GPS
Sampling Method: Split Spoon	Lat: 31.42823
Well Material/Size: 40 Schedule PVC - 2"	Long: -96.23936
Field Screening Parameter: Water Quality/Depth to Water	Elevation Datum: -
Units: feet	Ground Elevation (ft): 430.05'
Well Depth (ft bgs): 20' / Well Depth (ft toc): 22.79'	Well Elevation (ft): 432.84'
Surface Casing Length (ft): 2.79' / Screen Length (ft): 10'	Well Measuring Point: -
Drilling Company: Best Drilling Services	Depth to Water (ft bgs): 10'
Drilling Crew: Lawrence, Brandon , and LeDarris	Date/Time: 12.13.23 - 085

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GEOLOGY
2658
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2-27-24



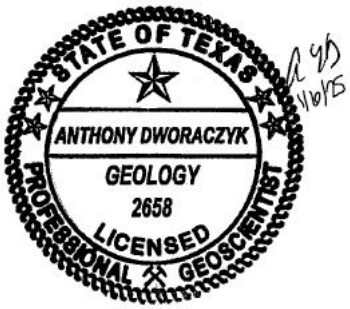
Alternative Source Demonstration

Limestone Electric Generating Station
Landfill (Unit 004)

TCEQ Coal Combustion Residuals (CCR) Registration No. CCR115
Industrial Solid Waste Registration No. 32490
EPA Identification No. TXD000837336
RN100542927/CN603207218

December 2024

Prepared For
NRG Texas Power, LLC
Jewett, Texas



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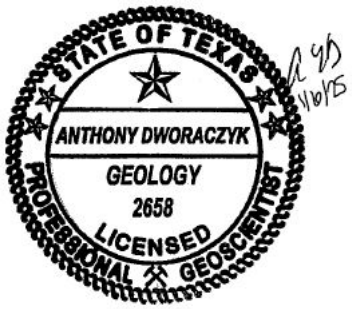
Attachments

Attachment 1 Boring Logs

I hereby certify that the alternative source demonstration presented within this document for the NRG Limestone 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:** 1/6/2025



Executive Summary

The NRG Texas Power, LLC (NRG) Limestone Electric Generating Station (Station) is located approximately seven miles northwest of Jewett, Texas and approximately 0.5 miles north of the intersection of Limestone, Freestone, and Leon Counties. 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 Station has one active CCR unit, the Landfill (Unit 004), that is managed pursuant to 30 TAC Chapter 352, which is the subject of this Alternative Source Demonstration (ASD).

The 15th semi-annual groundwater detection monitoring event was conducted on September 12, 2024. Verification sampling was performed for this sampling event on October 24th, 2024. Statistical evaluation of the Appendix III monitoring parameters 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 identified. TRC, on behalf of NRG notified the Texas Commission on Environmental Quality (TCEQ) of its intent to prepare an ASD.

As previously described in the ASD for the third 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 September 2024 semi-annual detection monitoring event analytical results are the seventh data set statistically evaluated using the new background water quality data set.

This ASD successfully identified alternative sources for the apparent SSIs at the Landfill, based on the following lines of reasoning:

- Numerous historical and active natural gas wells and their associated well pads and surface pits are located immediately surrounding and within the footprint of the Landfill. Well pits associated with the natural gas wells contribute spent completion or workover fluids to groundwater that contain constituents that are also CCR Rule Appendix III detection monitoring constituents;
- As shown on the boring logs for the Landfill CCR groundwater monitoring network, lignite and shale seams that contain trace amounts of boron are present at the Landfill and several monitor wells were installed into and screened across these seams;
- The Jewett lignite surface mine is located approximately 1.5 miles south of the Landfill;
- Natural variations in groundwater geochemistry are likely related to changes in pH, ion exchanges, EC (electrical conductivity), and/or salinity; and
- Various concentrations of Appendix III & IV constituents naturally occur in the native soils. This indicates that Appendix III & IV constituents have occurred naturally rather than anthropogenic in the groundwater beneath the site, impacting the groundwater geochemistry.

Therefore, based on the lines of reasoning presented in this ASD, alternative sources, and/or natural variations in groundwater geochemistry, rather than a release from the Landfill have been demonstrated to be responsible for the apparent SSIs observed. Based on this successful ASD, NRG will continue semi-annual detection monitoring for the Landfill per 30 TAC Chapter 352.

Section 1
Introduction

1.1 Background

The NRG Texas Power, LLC (NRG) Limestone Electric Generating Station (Station) is located approximately seven miles northwest of Jewett, Texas and approximately 0.5 miles north of the intersection of Limestone, Freestone, and Leon Counties. The Station is bisected by Farm-to-Market Road 39 (FM 39), which runs north-south through the middle of the Station. The western portion of the Station is located in Limestone County and includes the electricity generating portion of the Station. The eastern portion of the Station is located in Freestone County and includes the solid waste disposal area (SWDA).

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). 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 one active CCR-management unit – Landfill (Unit 004).

The Landfill is located within the eastern portion of the Station as shown on Figure 1. The Landfill was constructed in 1980 and is used for the final disposition of CCR. The western half of the Landfill has reached capacity and historically had been closed and capped prior to the effective date of the CCR Rule (October 19, 2015). CCR is currently being placed at the southern part of the eastern portion of the Landfill.

1.1.1 Groundwater Monitoring Program

The certified CCR monitoring well network for the Landfill consists of two upgradient background monitoring wells (MW-27R and MW-28) and eight downgradient monitoring wells (MW-01, MW-02, MW-17, MW-18, MW-19, MW-20, MW-21, and MW-22). Four new downgradient monitor wells (MW-47, MW-48, MW-49, MW-50) were installed in December 2023 and were added to the CCR monitoring network. A groundwater potentiometric surface map was prepared by TRC for the September 2024 semi-annual detection monitoring event and is provided in this ASD as Figure 2. The direction of groundwater flow beneath the Landfill was to the south - southwest.

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 were documented in the *Annual Groundwater Monitoring Report, Landfill (Unit 004)* (ERM 2018a) pursuant to §257.90(e).

The Station has continued to conduct semi-annual detection monitoring at the Landfill per the federal CCR Rule and 30 TAC Chapter 352. As of the September 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 third 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 September 2024 semi-annual detection monitoring event analytical 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 two apparent SSIs above background levels: boron and sulfate; 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 Landfill.

2.1 Hydrogeology

Based on the *Geologic Atlas of Texas, Waco Sheet* (BEG 1972), the Station is primarily located within the outcrop of the Calvert Bluff Formation of the Wilcox Group. Minor portions of the southeast corner of the Station are located within the outcrop of the Carrizo Sand and minor portions of the southwest corner of the Station are immediately underlain by alluvium. The Calvert Bluff Formation underlies both the Carrizo Sand and alluvium where present.

The Landfill is located solely within the outcrop of the Calvert Bluff Formation (BEG 1972); however, site investigation data indicate the Landfill may also be located within the outcrop of the Carrizo Sand. The Calvert Bluff Formation consists mostly of mudstone interbedded with fine sandstone, lignite, and ironstone concretions. The mudstone contains silt and very fine sand laminae. The Carrizo Sand consists of very fine sand with partings of silty clay, carbonaceous clay, and ironstone. The Carrizo Sand and the Wilcox Group comprise the Carrizo-Wilcox aquifer, which is recognized by the Texas Water Development Board (TWDB) as a major aquifer system in Texas. The Station is located within the outcrop, or the recharge zone, of the Carrizo-Wilcox aquifer (TWDB 2011).

Site investigations were conducted at the Station by Espey, Huston & Associated in 1986; Radian International in 1996 and 1997; EPRI in 2007, and Environmental Resources Management, Inc. (ERM) in 2016. The results of these investigations were summarized in the October 2017 *Ground Water Monitoring Networks for Coal Combustion Residual (CCR) Rule Compliance* report (ERM 2017b). Surficial material at the Landfill consists of in-situ or reworked clay from the Axtell-Tabor soil association. This clay is the source material for the Landfill liner and cap. Boring logs indicate the surficial material is underlain by interbedded clays, silts, and sands of the Quaternary alluvium, Carrizo Sand, and Calvert Bluff Formation. The boundaries between these units are generally indistinguishable.

2.2 Site Specific Information

During the installation of monitor wells for the Limestone monitoring network, soil samples were not collected for Appendix III & IV analysis. Four additional monitor wells (MW-47 through MW-50) were installed in December 2023. During the installation of these monitor wells, soil samples of native subsurface soils were collected and analyzed for Appendix III & IV constituents. Table 1: Soil Samples – Appendix III and

Table 2: Soil Samples Appendix IV provide a summary of the soil sample results for Appendix III & IV parameters during the December 2023 monitor well installation event.

Based on the results of this sampling event, Appendix III & IV constituents naturally occur in the native soils. This indicates that Appendix III & IV constituents have occurred naturally rather than anthropogenically in the groundwater beneath the Landfill, impacting the groundwater geochemistry. The groundwater geochemistry involves 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, adsorption-desorption processes, and leaching of constituents from the soil into the groundwater.

In addition to naturally occurring Appendix III & IV constituents in the soils affecting the geochemistry variations, numerous historical and active natural gas wells and their associated well pads and surface pits are located immediately surrounding and within the footprint of the Landfill (TRC, Alternative Source Demonstration, July 2024, Limestone Electric Generating Station, Landfill (Unit 004), Jewett, Texas). Well pits associated with the natural gas wells contribute spent completion or workover fluids to groundwater that contain constituents that are also CCR Rule Appendix III detection monitoring constituents.

The boring logs for the Landfill CCR groundwater monitoring network (TRC, Alternative Source Demonstration, July 2024, Limestone Electric Generating Station, Landfill (Unit 004), Jewett, Texas) indicate lignite and shale seams are present beneath the Landfill. Lignite and shale naturally contain Appendix III & IV constituents that can impact the geochemistry variations beneath the site.

Natural variations in groundwater geochemistry beneath and at the Limestone CCR Landfill can be related to changes in pH, ion exchanges, EC, and/or salinity along with the naturally occurring Appendix III & IV constituents in soils, oil and gas active at and near the landfill, and lignite and shale present in the subsurface beneath the Landfill.

2.3 Surrounding Area

2.3.1 Oil and Gas Production Wells

The Station and surrounding vicinity are densely populated with historical and current oil and gas activities consisting primarily of the installation and operation of natural gas production wells. Numerous active natural gas wells and their associated well pads, surface pits, subsurface pipelines, and infrastructure are located immediately surrounding and within the footprint of the Landfill. Figure 3 is a Mid-East Texas Groundwater Conservation District (METGCD) well map showing the locations of wells in the vicinity of the Landfill. The map is limited to Freestone and Leon counties and does not show wells in Limestone County immediately west of the Landfill. This figure demonstrates the extent to which non-CCR sources of constituents to groundwater pervade the vicinity of the Landfill.

Surface well pits typically contain spent completion fluids or workover fluids. Completion or workover fluids are often brine-containing liquids that are used for well testing and are chemically compatible with the formation fluids; and the spent fluids contained in the pits would have come into contact with formation water. According to the United States Geological Survey (USGS) National Produced Waters Geochemical Database, water co-produced with hydrocarbons (referred to as "produced water" or "formation water") from geologic formations underlying the Site has the following composition (USGS 2018):

- pH ranging from 4.67 standard units (SU) to 5.6 SU;
- Calcium ranging from 12,560 milligrams per liter (mg/L) to 33,520 mg/L;
- Chloride ranging from 56,980 mg/L to 96,200 mg/L;
- Sulfate ranging from 480 mg/L to 1,790 mg/L; and
- Total dissolved solids (TDS) ranging from 98,330 mg/L to 152,970 mg/L.

Considering the composition of the formation water with which the completion or workover fluids came into contact and the typical brine composition of these fluids, potential releases of these fluids would be expected to affect groundwater quality within the immediate vicinity and downgradient of the natural gas well pads and surface pits. Even minor releases of these fluids could increase the concentrations of calcium, chloride, sulfate, and TDS and decrease the pH in the nearby Landfill upgradient and downgradient monitoring wells.

2.3.2 Lignite Mine

Approximately 1.5 miles south of the Landfill is the Jewett lignite mine. The Jewett Mine is a 35,000-acre surface-mine complex. The mine, which is one of the largest in Texas, produced about 5.3 million short tons of lignite per year, according to the U.S. Department of Energy (USDOE). The 31-year-old mine provided lignite for combustion at the Station. In 2018, NRG decided to close the mine and is in the process of performing reclamation.

In 2020, the Jewett Mine had four final pits containing water ranging from approximately 340 million to 1.5 billion gallons. The estimated volumes remaining in the pits in 2020 were as follows:

- E-South Final Pit: 342,000,000 gallons;
- RP-D9 Final Pit: 403,000,000 gallons;
- B-North Final Pit: 375,000,000 gallons; and
- BX Final Pit: 1,290,000,000 gallons.

The pits can have depths greater than 100 feet. The groundwater potentiometric surface is generally understood to be above the bottom of the pits. Multiple seams of lignite at varying depths below the ground surface were removed from these pits during mining.

According to the U.S Department of Energy, Office of Scientific and Technical Information*, Trace elements in Texas Lignite*, 1983, during coal mining and utilization, trace elements are released into the environment. Certain of these elements may have beneficial or neutral effects while other trace elements are potentially harmful. On a national basis, nine of these elements: antimony, arsenic, boron, cadmium, germanium, mercury, molybdenum, selenium, and silver; are commonly found in concentrations greater than the levels present in typical crustal rocks. Because of the conditions under which Gulf Coast lignites were deposited and the nature of lignites in general, the modes of occurrence and concentrations of trace elements in Texas lignites are different from coals found elsewhere in the United States. Based on a limited data set of 38 lignite samples from Arkansas, Mississippi, and Alabama compiled in 1975, Gulf Coast lignites were identified as having higher levels of boron, lanthanum, lead, selenium, uranium, yttrium, and zirconium than other US coal regions.

2.3.3 Lignite/Shale Seams in Monitoring Wells

A review of the boring logs for the Landfill monitoring network identified lignite seams and shale starting at around 37 feet below ground surface (bgs) in some of the borings. As noted on the boring logs in Attachment 1, monitor wells were completed across these lignite and shale seams. Although lignite seams and shale are not noted in all borings for the monitoring network, the presences of these minerals in the subsurface would impact groundwater quality for the region.

As noted above, lignite contains trace elements that are released into the environment, which include boron. As presented in the Geological Survey Bulletin 1314-A, *Geochemical Investigations of Some Black Shales and Associated Rocks,* trace elements of boron, barium, gallium, and strontium are found in the upper cretaceous shales of Texas. The following section discusses the geochemistry of the groundwater in the area.

2.4 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.

2.4.1 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, 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 concentrations of boron in groundwater at the Landfill, the source of boron is more likely natural rather than anthropogenic. Therefore, the increase in concentration of boron at MW-02, MW-21, and MW-50 can be related to natural variations in groundwater geochemistry related to pH, ion exchanges, EC, and salinity.

2.4.2 Sulfate

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 elevated 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).

Section 3
Alternative Source Demonstration

The 15th semi-annual detection monitoring event was conducted on September 12, 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 identified: boron and sulfate.

Verification sampling was conducted on October 24, 2024, and NRG notified the TCEQ of its intent to prepare an ASD, addressing the apparent SSIs for boron and sulfate.

The UTLs and sampling results for the apparent SSIs are provided in Table 1 below.

Table 1 SSI – March 2024 Semi-annual Detection Monitoring Event

ANALYTE	WELL	LTL	UTL	SAMPLE DATE	VALUE	UNIT
Boron	MW-21(DG)	NA	0.44	10/24/2024	0.656	mg/L
Boron	MW-50(DG)	NA	0.44	9/12/2024	0.710	mg/L
Sulfate	MW-50(DG)	NA	890	3/28/2024	1,210	mg/L

Notes: DG = Downgradient
UG = Upgradient
mg/L = milligrams per Liter

Alternative sources for the apparent SSIs encompass a range of apparent lines of reasoning and include the following non-CCR sources located in the vicinity of the Landfill:

- The Station and surrounding vicinity are densely populated with historical and current oil and gas activities consisting primarily of natural gas production wells;
- Monitor wells were completed into and screened across both lignite and shale seams that are a source of trace elements such as boron;
- A lignite mine is located immediately south of the Landfill and mining operations can impact the groundwater quality and pH of groundwater over an extended period of time; and
- Based on the results of a soil sampling event during monitor well installation during 2023, various concentrations of Appendix III & IV constituents naturally occur in the native soils. This indicates that Appendix III & IV constituents have occurred naturally rather than anthropogenic in the groundwater beneath the site, impacting the groundwater geochemistry.

Acidity is transported from a mine in groundwater or by surface water runoff that can then infiltrate into groundwater. Through migration, such groundwater, can impact groundwater quality at and in the vicinity

of the Landfill. During historical detection monitoring at the Landfill, the pH of groundwater at MW-21 has remained within the range of 5.0 to 5.6 S.U. As discussed in Section 2.2, low pH (< 6) conditions are favorable for the dissolution of boron from mineral surfaces in the soil and bedrock.

In summary, the apparent SSIs for boron and sulfate for the 14th semi-annual detection monitoring event are most likely related to other non-CCR off-site sources (oil and gas activities or the historic lignite mine), the apparent presence of lignite seams within the screened portion of the monitor wells, or natural variations in groundwater geochemistry (acidic pH conditions) rather than a release to groundwater from the Landfill.

Section 4
Conclusions

Based on statistical evaluation of the September 12, 2024, semi-annual detection monitoring event and October 24, 2024, verification sampling analytical results, two apparent SSIs: boron and sulphate; were identified for the Landfill. This ASD has identified the following lines of reasoning that support alternative sources for the apparent SSIs:

- Numerous historical and active natural gas wells and their associated well pads and surface pits are located immediately surrounding and within the footprint of the Landfill. Well pits associated with the natural gas wells contribute spent completion or workover fluids to groundwater that contain constituents that are also CCR Rule Appendix III detection monitoring constituents;
- As shown on the boring logs for the Landfill CCR groundwater monitoring network, lignite and shale seams that contain trace amounts of boron are present at the Landfill and several monitor wells were installed into and screened across these seams;
- The Jewett lignite surface mine is located approximately 1.5 south of the Landfill;
- Natural variations in groundwater geochemistry are likely related to changes in pH, ion exchanges, EC, and/or salinity; and
- Various concentrations of Appendix III & IV constituents naturally occur in the native soils. This indicates that Appendix III & IV constituents have occurred naturally rather than anthropogenic in the groundwater beneath the site, impacting the groundwater geochemistry.

Therefore, based on the lines of reasoning presented in this ASD, alternative sources, and/or natural variations in groundwater geochemistry, rather than a release from the Landfill have been demonstrated to be responsible for the apparent SSIs observed. Based on this successful ASD, NRG will continue semi-annual detection monitoring for the Landfill per 30 TAC Chapter 352.

Section 5
References

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Figures



PROJECT:
NRG TEXAS POWER, LLC
Limestone Electric Generating Station
Jewett, Texas

TITLE:
Site Map

DRAWN BY:	O. Fonseka	PROJECT No.:	298367.2002.0000
CHECKED BY:	R. Varnell		**FIGURE 1**
APPROVED BY:	R. Varnell		
DATE:	January 2021		

TRC
10550 Richmond Ave.
Suite 210
Houston, TX 77042
Phone: 713.244.1000

FILE: Fig 2 - NRG-LimestoneStation - Landfill_Adjusted.dwg

HOU D:\Users\SRay\Downloads\ Fig 2 - NRG-LimestoneStation - Landfill_Adjusted.dwg 01/07/21



LEGEND

- Landfill Background CCR Locations
- Monitor Well
- Landfill CCR Monitor Well
- ***447.64*** Groundwater Elevation (FT MSL)
- ***NM*** Not Measured
- Groundwater Flow Direction
- Groundwater Elevation Contour - Dashed where Inferred (FT MSL)
- CCR Landfill Boundary

STATE OF TEXAS
ANTHONY DWORACZYK
GEOLOGY
2658
LICENSED
PROFESSIONAL GEOSCIENTIST
12/9/2025

NOTE:
GROUNDWATER ELEVATIONS MEASURED BY HMI ON SEPTEMBER 2024.

0 690 1,380 FT

1 " = 700 '
1:8,400

N

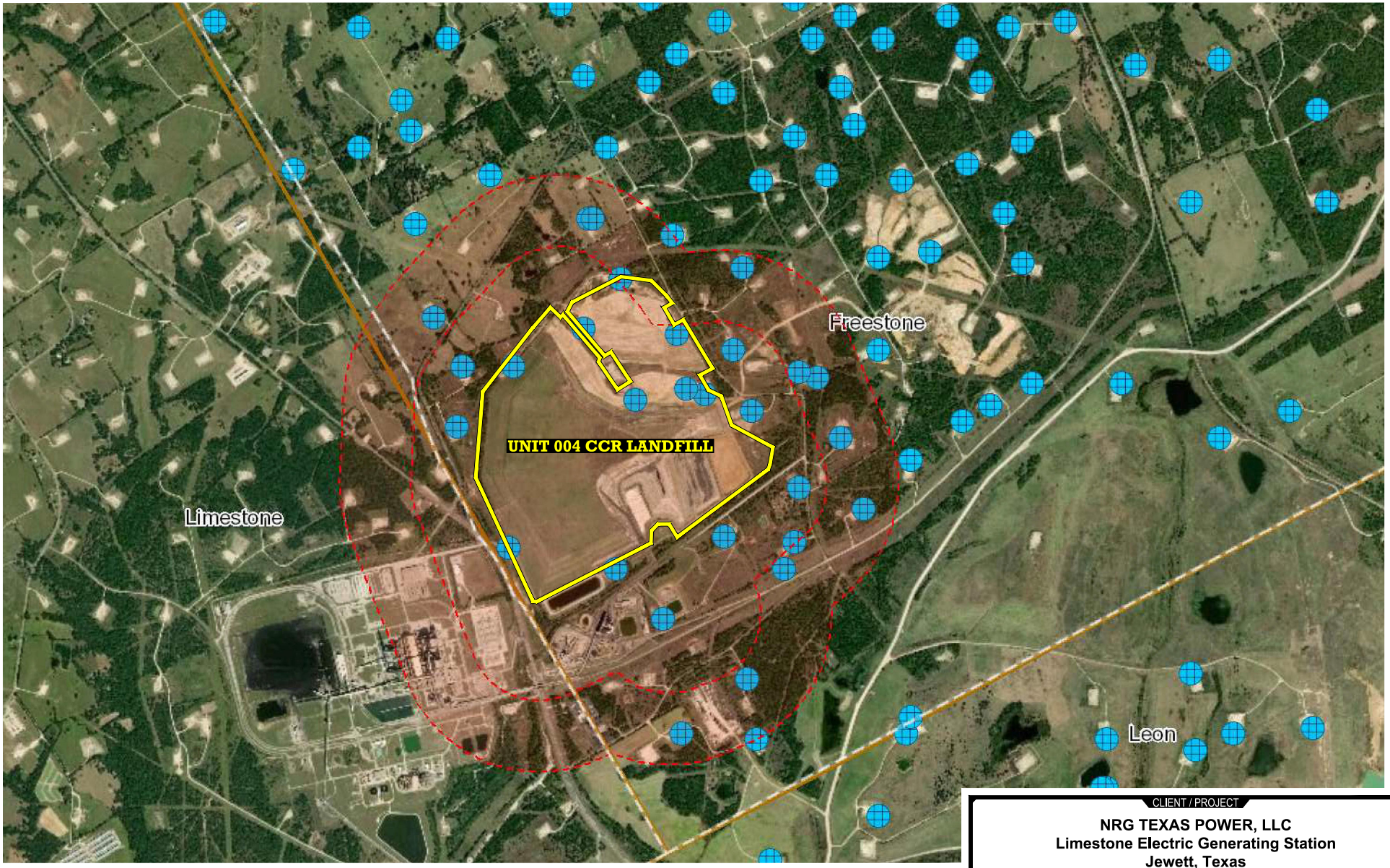
PROJECT:
NRG TEXAS POWER, LLC
LIMESTONE
JEWETT, TEXAS

TITLE:
GROUNDWATER POTENTIOMETRIC SURFACE - SEPTEMBER 2024

DRAWN BY:	F. Yarbrough	PROJ. NO.:	585632.0000.0000
CHECKED BY:	J. Atwell		
APPROVED BY:	A. Dworaczyk		**FIGURE 2**
DATE:	December 2024		

TRC
14701 St. Mary's Lane, Suite 500
Houston, TX, 77079
Phone 281.616.0100
www.trcsolutions.com

FILE NO.: 585632_2-2.mxd



July 3, 2019

polygonLayer

Override 1

METGCD Wells

METGCD Wells

Yes

Counties

1:36,112

0 0.3 0.6 1.2 mi

0 0.5 1 2 km

Halff Associates, Inc.
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user

CLIENT / PROJECT

NRG TEXAS POWER, LLC
Limestone Electric Generating Station
Jewett, Texas

TITLE

OIL AND GAS WELL MAP

DRAWN BY: O. Fonseka	REQUEST BY: T. Dworaczyk	PROJECT NO. 528473
DWG. DATE: October 2023	PROJECT-MGR: T. Dworaczyk	

TRC
14701 ST. MARY'S LANE, STE. 500
HOUSTON, TEXAS 77079
PHONE: 281-616-0100
TRCcompanies.com

FIGURE 3

Tables

Soil Samples - Appendix III
December 2023
Limestone Electric Gernerating Station - Jewett, Texas

Analyte Group			NRG App III					
Analyte			Boron	Calcium	Chloride	Fluoride	Sulfate	pH, Field
Unit			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	su
Well ID	**Sample Date**	**Duplicate**						
Landfill - NRG LIM								
PW-01/MW-47 13"	12/12/2023	N	1.14 J	1,130	13.0	1.57	15.4	7.79
PW-01/MW-47 17"	12/12/2023	N	1.46 J	2,310	7.64	1.39	5.45	8.02
PW-02/MW-48 11"	12/12/2023	N	1.01 J	1,010	19.8	1.52	90.5	7.38
PW-02/MW-48 18"	12/12/2023	N	1.14 J	1,460	52.2	1.18	27.9	7.89
PW-03/MW-49 7'	12/12/2023	N	10.0	3,940	24.3	1.08	667	7.58
PW-03/MW-49 14'	12/12/2023	N	1.23 J	1,180	32.0	1.58	3.62 J	7.17
PW-04/MW-50 5'	12/13/2023	N	1.70 J	1,360	7.88	0.686 J	179	6.04
PW-04/MW-50 10'	12/13/2023	N	1.83 J	2,900	4.27 J	<0.300	83.3	6.03

Notes

N	Normal sample
J	Concentration is an estimated value. Result is less than the method quantittion limit but≥ to the method detection limit.
U	Analyte was not detected at or above the method detection limit.

Soil Samples - Appendix IV
December 2023
Limestone Electric Gernerating Station - Jewett, Texas

Analyte Group			NRG App IV											
Analyte			Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Lead	Lithium	Molybdenum	Selenium	Thallium	Mercury
Unit			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Well ID	Sample Date	Duplicate													
Landfill - NRG LIM															
PW-01/MW-47 13'	12/12/2023	N	<0.0634	1.85	44.4	0.273 J	0.0582 J	8.36	4.13	2.12	4.09	0.126 J	0.957	<0.217	0.00377
PW-01/MW-47 17'	12/12/2023	N	<0.0623	0.724	57.3	0.266 J	0.0312 J	12.4	3.05	3.00	5.69	0.0277 J	0.534	<0.214	0.0116
PW-02/MW-48 11'	12/12/2023	N	<0.0606	1.65	30.5	0.255 J	<0.0252	8.28	3.33	3.69	4.22	0.128 J	0.408 J	<0.208	0.00635
PW-02/MW-48 18'	12/12/2023	N	0.0653 J	2.36	266	0.334 J	0.0708 J	10.1	4.53	5.72 J	4.85	0.157 J	0.603	<0.206	0.00616
PW-03/MW-49 7'	12/12/2023	N	0.0669 J	4.60	150	0.668	0.0537 J	13.3	6.40	6.90 J	5.57	0.291 J	1.21	<0.212	0.0138
PW-03/MW-49 14'	12/12/2023	N	0.0862 J	1.97	101	0.381 J	0.0511 J	8.70	6.70	7.28	2.89	0.190 J	0.639	<0.212	0.0121
PW-04/MW-50 5'	12/13/2023	N	0.0781 J	2.34	69.8	0.373 J	<0.0262	9.49	4.03	5.18	2.80	0.191 J	0.557	<0.217	0.0111
PW-04/MW-50 10'	12/13/2023	N	<0.0618	2.37	34.5	0.475	0.111 J	13.5	4.76	5.76	5.88	0.0948 J	0.796	<0.212	0.0411

Notes

N	Normal sample
J	Concentration is an estimated value. Result is less than the method quantittion limit but ≥ to the method detection limit.
U	Analyte was not detected at or above the method detection limit.

Attachment

ESPEY, HUSTON & ASSOCIATES, INC.
ENGINEERING & ENVIRONMENTAL CONSULTANTS

HOLE NO. MW-1

DRILLING LOG

HOLE NO.	MW-1
LOCATION	Limestone Electric Generating Station
GROUND ELEV.	±418.06'
DRILL ANGLE	0°
COLLAR ELEV.	None
DRILL DIRECTION	Vertical
TOTAL DEPTH	60'
STARTED	10/1/86
ELEV. DATUM	Surface
COMPLETED	10/1/86

	DEPTH	DATE	TIME
FIRST FREE WATER			
BAILED WATER LEVEL			
STATIC WATER LEVEL	4.88	10/7/86	1635

PROJECT NO.	8754
SHEET	1 OF 1
PROJECT/SITE	Houston Lighting & Power
GEO/ENG.	Clyde Smith
CONTRACTOR	Reed & Morris
DRILLER	Ray Reed
RIG MODEL	CFD-1
HOLE TYPE	Rotary
HOLE DIAMETER	5"
DRILL FLUID	H_2O

TESTS	SAMPLES	COMPLETION

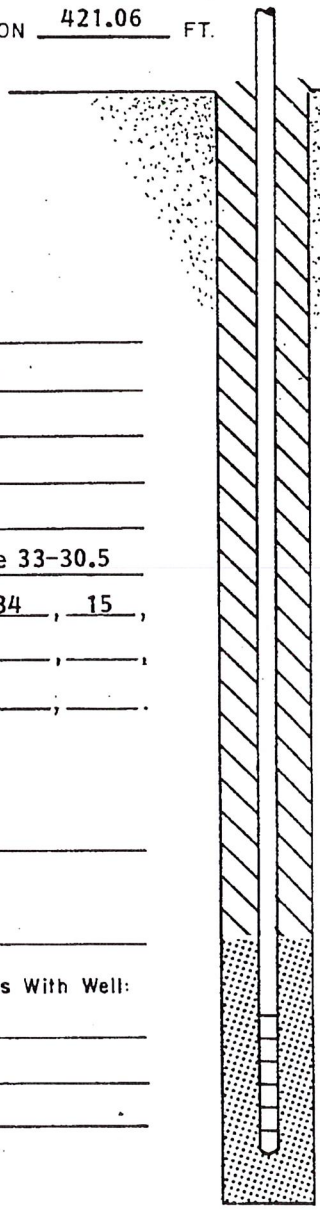
ELEV.	DEPTH	LEGEND	CLASSIFICATION/DESCRIPTION	RECOV.	SAMPLES	DRILLING REMARKS
	5		Brown sand and clay			
	10		Light gray, fine grained sand with minor amounts gray clay and ironstone			
	15					
	20					
	25		Gray silty clay			
	30					
	35		Interbedded brown to tan sand and gray clay			
	40		- very lignitic 39-41'			
	45		Fine gray sand with thin interbeds of gray clay			
	50					
	55		Gray clay			
	60		T.D. at 60'			

WELL COMPLETION RECORD

JOB NO. 8754 WELL NO. MW1 GEOLOGIST Clyde Smith

CLIENT HL&P DRILLER Reed & Morris

TOP OF CASING ELEVATION 421.06 FT. STICK-UP 3.0 FT.



DETAILS OF CONSTRUCTION:

Date Completed 10/1/86

Hole Diameter (in) 7 7/8

Screen Size (in) .010

Screen Length (ft) 20

Casing Size (in) 4

Packer Depth (ft) Bentonite 33-30.5

Centralizer Depths (ft) 54, 34, 15,

_____, _____, _____, _____, _____,

_____, _____, _____, _____, _____.

Completion Technique:

1) Sand Placement Method

Tremie

2) Grout Placement Method

Tremie

Description of Potential Problems With Well:

None

MATERIALS

CEMENT (sks) 12

SAND (ft^3) 8

PVC (ft) 38.5

TOP OF BENTONITE PACK 30.5 FT.

TOP OF SAND PACK 33 FT.

TOP OF SCREEN 35.5 FT.

BOTTOM OF SCREEN 55.5 FT.

BOTTOM OF HOLE 56 FT.

NOTE: ALL DEPTHS ARE REFERENCED TO "DEPTH BELOW GROUND SURFACE"

ESPEY, HUSTON & ASSOCIATES, INC.
ENGINEERING & ENVIRONMENTAL CONSULTANTS

HOLE NO. MW-2

DRILLING LOG

HOLE NO.	MW-2
LOCATION	Limestone Electric Generating Station
GROUND ELEV.	±427.14'
DRILL ANGLE	0°
COLLAR ELEV.	None
DRILL DIRECTION	Vertical
TOTAL DEPTH	60'
STARTED	10/2/86
ELEV. DATUM	Surface
COMPLETED	10/2/86

	DEPTH	DATE	TIME
FIRST FREE WATER			
FAILED WATER LEVEL			
STATIC WATER LEVEL	7.34	10/7/86	1625

PROJECT NO.	8754
SHEET	1 OF 1
PROJECT/SITE	Houston Lighting & Power
GEO/ENG.	Clyde Smith
CONTRACTOR	Reed & Morris
DRILLER	Ray Reed
RIG MODEL	CFD-1
HOLE TYPE	Rotary
HOLE DIAMETER	5"
DRILL FLUID	H_2O

TESTS	SAMPLES	COMPLETION

ELEV.	DEPTH	LEGEND	CLASSIFICATION/DESCRIPTION	RECOV.	SAMPLES	DRILLING REMARKS
	0		Brown sand interbedded with gray to tan clay			
	15		Tan and gray silty clay			
	20		Tan and gray fine grained sand - with interbedded gray clay at 22-26' and 29-30'			
	55		Gray clay			
	60		T.D. at 60'			

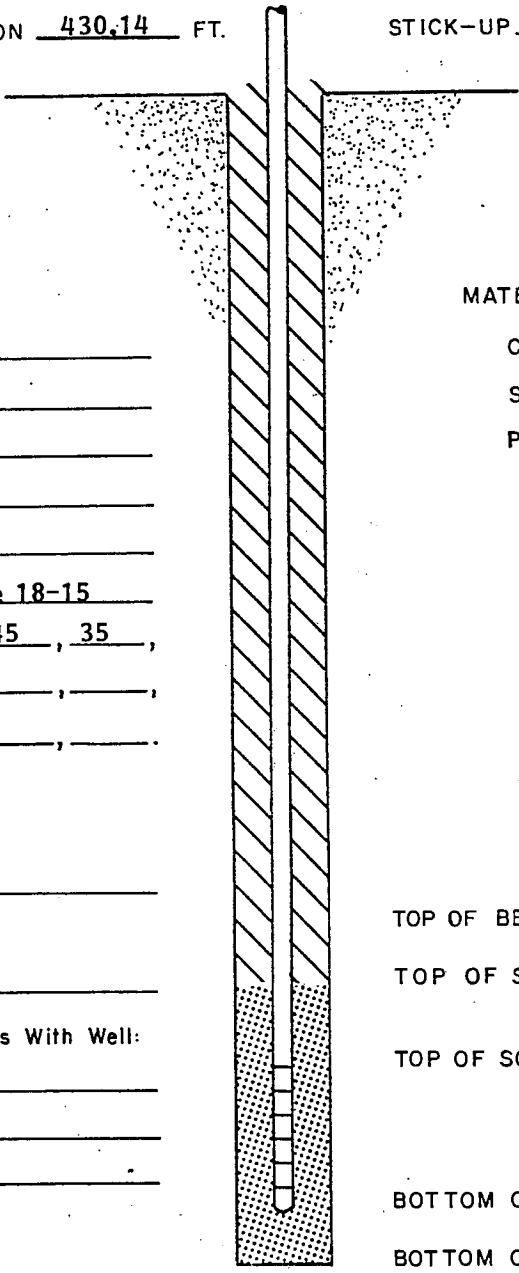
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WELL COMPLETION RECORD

JOB NO. 8754 WELL NO. MW2 GEOLOGIST Clyde Smith

CLIENT HL&P DRILLER Reed & Morris

TOP OF CASING ELEVATION 430.14 FT. STICK-UP 3.3 FT.



DETAILS OF CONSTRUCTION:

Date Completed 10/2/86

Hole Diameter (in) 7 7/8

Screen Size (in) .010

Screen Length (ft) 30

Casing Size (in) 4

Packer Depth (ft) Bentonite 18-15

Centralizer Depths (ft) 55, 45, 35, 25, ____, ____, ____, ____, ____, ____, ____, ____, ____, ____.

Completion Technique:

1) Sand Placement Method

Tremie

2) Grout Placement Method

Tremie

Description of Potential Problems With Well:

None

MATERIALS

CEMENT (sks) 4

SAND (ft^3) 14

PVC (ft) 29.5

TOP OF BENTONITE PACK 15 FT.

TOP OF SAND PACK 18 FT.

TOP OF SCREEN 26.5 FT.

BOTTOM OF SCREEN 56.5 FT.

BOTTOM OF HOLE 57 FT.

NOTE: ALL DEPTHS ARE REFERENCED TO "DEPTH BELOW GROUND SURFACE"

STATE OF TEXAS WELL REPORT for Tracking #178434

Owner:	**NRG Texas Power Limestone Station**	Owner Well #:	**MW-17**
Address:	**Rt. 1 BoX 85 Jewett, TX 75846**	Grid #:	**39-64-1**
Well Location:	**FM 39 N. Jewett, TX 75846**	Latitude:	**31° 05' 14" N**
		Longitude:	**096° 07' 26" W**
Well County:	**Limestone**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Start Date: **4/20/2009** Drilling End Date: **4/20/2009**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**8.5**	**0**	**55**

Drilling Method: **Hollow Stem Auger**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
Filter Pack Intervals:	**38**	**55**	**Gravel**	**20/40**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**0**	**36**	**4, Portland**
	36	**38**	**2, Bentonite**
	38	**55**	**12 Sand**

Seal Method: **Grout**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Alternative Procedure Used**

Water Level: **46 ft.** below land surface on **2009-04-20** Measurement Method: **Unknown**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Advanced Drilling Systems, Inc.**

904 W. Tidwell
Houston, TX 77091

Driller Name: **David Rogers** License Number: **52037**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

From (ft)	To (ft)	Description
0	**1**	**Yellowish red SILTY CLAY with abundant Red Mottling**
1	**5**	**Gray very SILTY SAND moist, with some**
		clayey sand seams
		- very silty
5	**12**	**Gray CLAYEY SAND with abundant strong**
		brown mottling
		- very silty
		- some black lignite seams
		- wet
		- abundant yellowish brown mottling
		- abuundant strong brown
		- very moist
12	**16**	**Gray, very SILTY SAND**
		- very moist
		- very fine grained
		- some yellowish brown mottling
		- very silty

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
2	**New**	**PVC**	**Casing 0-40 sch-40**
2	**New**	**PVC**	**Slotted 40-55 0.01**

16-20: Strong brown SILTY CLAY with abundant silty sand seams
- some yellowish brown clayey sand seams
20-26: Yellowish brown CLAYEY SAND with
abundant gray hard brittle clay seams
- some brownish yellow limonitic iron seams
- abundant dark gray clay seams
- very moist
- very silty
26-31: Brown very silty sand, very fine grained
31-42: Brown CLAYEY SAND with abundant
gray clay seams
- very moist
- some muscovite flakes
- abundant dark gray clay seams
- very moist
- some strong brown silty sand seams
- very silty
- very abundant dark gray seams
42-53: Dark gray SILTY SAND, fine grained,
abundant dark gray silty clay seams
- very silty
- saturated @ 46 bgs.
- abundant dark gray silty clay seams
- very silty
- very moist
53-55: Very dark gray CLAY, firm
- some light gray silt seams
- lignite seams

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

ERM Environmental Resources Management

MW-19
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-19 Date Drilled 2016-05-17

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 35.40 ' Boring Diam. 9.00 "

N. Coord. 10507460.00 ' E. Coord. 3574645.00 ' Surface Elevation 440.94 ' Ft. MSL Datum

Screen: Type Schedule 40 PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type Schedule 40 PVC Diam. 2.00 " Length 25.00 ' Sump Length 0.40 '

Top of Casing Elevation 443.79 ' Stickup 2.85 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Drilling Services Driller Bruce Milton

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type		Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
440.94	0					0-5	0-1.6	SANDY CLAY: Yellowish-brown (10YR 6/4), dry, crumbly, hard, sand is less than 10 percent, PP=4.0 TSF
440							1.6-6.2	SILTY SAND: Light yellowish-brown (10YR 6/4), dry to damp, firm to hard, semi-plastic; thinly laminated. PP=3.5-4.5 TSF
	5					5-10		
435							6.2-8	SANDY CLAY: Light yellowish-brown (10YR 6/4) to yellowish-brown (10YR 5/8), dry to damp, stiff to hard; semi-plastic; thinly laminated.
							8-10	No Recovery
	10					10-15	10-18.5	SILTY SAND: Dark yellowish-brown (10YR 4/6), dry to damp becoming wet at 15.5 to 15.8 feet then dry to damp 15.8 to 18, stiff to hard; soft, friable; thinly bedded. @16.8 feet thin lens of rocks, sand is well sorted;. rootlets at 10.3 feet.
430								
	15					15-20		
425								
							18.5-20	No Recovery
	20							

STATE OF TEXAS 10/10/16 James R. Davidson Geology 10493 LICENSED PROFESSIONAL GEOSCIENTIST

ERM Environmental Resources Management

MW-19
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-19 Date Drilled 2016-05-17

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 35.40 ' Boring Diam. 9.00 "

N. Coord. 10507460.00 ' E. Coord. 3574645.00 ' Surface Elevation 440.94 ' Ft. MSL Datum

Screen: Type Schedule 40 PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type Schedule 40 PVC Diam. 2.00 " Length 25.00 ' Sump Length 0.40 '

Top of Casing Elevation 443.79 ' Stickup 2.85 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Drilling Services Driller Bruce Milton

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type		Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
420	20					20-25	20-34	SILTY SAND: Light olive-brown (2.5Y 5/3), damp becoming moist at 25 to 25.8 feet, damp 25.5 to 28 feet, damp to moist 28 to 30 feet, soft, friable, thinly bedded; some lenticular clay nodules from 30 to 34 feet.
415	25					25-30		
410	30					30-35		
405	35						34-35.4	No Recovery T.D. = 35.40 '
	40							

STATE OF TEXAS 10/14/16 James R. Davidson Geology 10493 LICENSED PROFESSIONAL GEOSCIENTIST

ERM Environmental Resources Management

MW-20
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-20 Date Drilled 2016-05-17

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 39.40 ' Boring Diam. 9.00 "

N. Coord. 10507730.00 ' E. Coord. 3574995.00 ' Surface Elevation 442.12 ' Ft. MSL Datum

Screen: Type Schedule 40 PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type Schedule 40 PVC Diam. 2.00 " Length 29.00 ' Sump Length 0.40 '

Top of Casing Elevation 445.11 ' Stickup 2.99 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Driling Services Driller Bruce Milton

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type	Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
442.12	0				0-5	0-0.7	SANDY CLAY: Mottled light yellowish-brown (10YR 5/4) and light brownish-gray (10YR 6/2), dry, firm, brittle; sand less than 10 percent, thinly laminated.
						0.7-1.6	SILTY SAND: Yellowish-brown (10YR 5/4), dry, soft, friable; sand is fine grained, subangular, silt approximately 10 percent.
440						1.6-4	SANDY CLAY: Mottled light yellowish-brown (10YR 5/4) and light brownish-gray (10YR 6/2), dry, firm to stiff, brittle; sand less than 10 percent, thinly laminated. PP=2.5-3.5 TSF
						4-5	No Recovery
	5				5-10	5-8.5	SANDY CLAY: Very dark brown (7.5YR 2.3/3), dry, hard, brittle. PP=4.5+TSF @6.8 feet becomes strong brown (7.5YR 4/6); @7.8 feet becomes light olive brown (2.5 Y 5/3) with some angular rock fragments.
435							
						8.5-10	No Recovery
	10				10-15	10-25	SILTY SAND: Light yellowish-brown (2.5Y 6/4) and light gray (2.5Y 7/2) interbedded, dry, friable, well sorted, silt approximately 10 percent. @13.1 feet possible cross-bedding with rip-up (clay) clasts. @17.8 becomes damp, silt content increases to approximately 30 percent.
430							
	15				15-20		
425							
	20						

STATE OF TEXAS
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10/14/16

ERM Environmental Resources Management

MW-20 DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-20 Date Drilled 2016-05-17

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 39.40 ' Boring Diam. 9.00 "

N. Coord. 10507730.00 ' E. Coord. 3574995.00 ' Surface Elevation 442.12 ' Ft. MSL Datum

Screen: Type Schedule 40 PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type Schedule 40 PVC Diam. 2.00 " Length 29.00 ' Sump Length 0.40 '

Top of Casing Elevation 445.11 ' Stickup 2.99 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Driling Services Driller Bruce Milton

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type	Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
	20				20-25		
420							
	25				25-30	25-39.4	SILTY SAND: Olive-brown (2.5Y 4/4), damp to wet (becomes wet at 30-30.8 and 35-35.5 feet), soft, friable. Thinly laminated clay lenses at 37.7 to 37.8 ft. and 38.8 to 39.1 ft., damp, brittle.
415							
	30				30-35		
410							
	35				35-39.4		
405							
	40						T.D. = 39.40 '

STATE OF TEXAS 10/6/16 James R. Davidson Geology 10493 LICENSED PROFESSIONAL GEOSCIENTIST

ERM Environmental Resources Management

MW-21
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-21 Date Drilled 2016-05-18

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 35.40 ' Boring Diam. 9.00 "

N. Coord. 10508050.00 ' E. Coord. 3575406.00 ' Surface Elevation 443.46 ' Ft. MSL Datum

Screen: Type Schedule 40 PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type Schedule 40 PVC Diam. 2.00 " Length 25.00 ' Sump Length 0.40 '

Top of Casing Elevation 446.35 ' Stickup 2.89 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Drilling Services Driller Bruce Milton

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type	Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
443.46	0				0-5	0-0.8	SANDY CLAY: Mottled yellowish-brown (10YR 5/4) and yellowish-red (10 YR 4/6), dry, stiff, brittle. PP=3.5 TSF
						0.8-1.2	SILTY SAND: Strong brown (7.5 YR 5/6), dry, soft, friable, well sorted. Silt approx. 10 percent.
						1.2-2.9	SANDY CLAY: Dark yellowish-brown interlaminated with light brownish-gray (10YR 6/2), dry to damp, firm, semi-plastic. PP=2.5 TSF
440						2.9-8	SILTY SAND: Strong brown (7.5 YR 5/6) to yellowish-brown (10YR 4/4), dry, soft, friable, well sorted. Silt approx. 10 percent. @6.1 becomes dark brown (7.5YR 7/2).
	5				5-10		
435						8-10	No Recovery
	10				10-15	10-19.5	SILTY SAND: Mottled dark yellowish-brown (10YR 4/4) and gray (10YR 5/1)dry, soft, friable, silt content about 40 percent. @11.2 feet becomes yellowish-brown (10YR 5/6) interlaminated with gray (10YR 5/1); @13.1 feet silt content decreases to 10 percent.
430							
	15				15-20		
425						19.5-24.5	SILTY SAND: Yellowish-brown (10YR 5/4), moist, soft, friable, thinly bedded with well developed partings. @22.0 to 22.5 and 23.0 to 24.5 feet silt content increases to 40 percent.
	20						

STATE OF TEXAS 10/14/16 James R. Davidson Geology 10493 LICENSED PROFESSIONAL GEOSCIENTIST

ERM Environmental Resources Management

MW-21
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-21 Date Drilled 2016-05-18

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 35.40 ' Boring Diam. 9.00 "

N. Coord. 10508050.00 ' E. Coord. 3575406.00 ' Surface Elevation 443.46 ' Ft. MSL Datum

Screen: Type Schedule 40 PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type Schedule 40 PVC Diam. 2.00 " Length 25.00 ' Sump Length 0.40 '

Top of Casing Elevation 446.35 ' Stickup 2.89 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Drilling Services Driller Bruce Milton

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type		Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
420	20					20-25		
	25					25-30	24.5-31.4	SILTY SAND: Olive brown (2.5Y 4/5), moist, soft, friable, thinly bedded with well developed partings.
415	30					30-35.4		
410	35						31.4-31.9 31.9-35.4	CLAY: Interlaminated with silty sand. Clay is black (7.5YR 2.5/1), damp, semi-plastic, soft. Silty sand is brown (10YR 4/3), damp, soft, friable. SILTY SAND: mottled yellowish brown (10YR 5/6) and light brownish-gray (10YR 6/2), damp becomes wet at 32.2 to 33 feet, laminated.
405	40							T.D. = 35.40 '

STATE OF TEXAS 10/16/16 James R. Davidson Geology 10493 LICENSED PROFESSIONAL GEOSCIENTIST

ERM Environmental Resources Management

MW-22
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-22 Date Drilled 2016-05-18

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 35.00 ' Boring Diam. 9.00 "

N. Coord. 10508270.00 ' E. Coord. 3575669.00 ' Surface Elevation 444.68 ' Ft. MSL Datum

Screen: Type Schedule 40 PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type Schedule 40 PVC Diam. 2.00 " Length 24.50 ' Sump Length 0.40 '

Top of Casing Elevation 447.59 ' Stickup 2.91 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Drilling Services Driller Bruce Milton

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type	Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
444.68	0				0-5	0-1.6	SILTY SAND: Strong brown (7.5YR 5/6), dry, soft, friable.
						1.6-3.5	SANDY CLAY: Interlaminated dark yellowish-brown (10YR 4/4) and light brownish-gray (10YR 6/2), damp, semi-plastic. PP=2.5 TSF
						3.5-5	No Recovery
440	5				5-10	5-7.5	SILTY SAND: Strong brown (7.5YR 5/6), dry, soft, friable.
						7.5-8.5	SANDY CLAY: Interlaminated dark yellowish-brown (10YR 4/4) and light brownish-gray (10YR 6/2), damp, semi-plastic.
						8.5-10	No Recovery
435	10				10-15	10-19	SILTY SAND: Interlaminated gray (7.5YR 6/1 and strong brown (7.5 YR 5/6), damp, loose, friable, well sorted, well developed partings. @11.0 to 11.6 bioturbation; @12.5 lenticular clay nodules (interclasts); @13.0 silt content increases to 40 percent.
430	15				15-20		
						19-24	SILTY SAND: Interlaminated silty sand and sandy clay. Silty sand as above. Sandy clay is strong brown, dry to damp, crumbly.
425	20						

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ERM Environmental Resources Management

MW-22
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-22 Date Drilled 2016-05-18

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 35.00 ' Boring Diam. 9.00 "

N. Coord. 10508270.00 ' E. Coord. 3575669.00 ' Surface Elevation 444.68 ' Ft. MSL Datum

Screen: Type Schedule 40 PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type Schedule 40 PVC Diam. 2.00 " Length 24.50 ' Sump Length 0.40 '

Top of Casing Elevation 447.59 ' Stickup 2.91 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Drilling Services Driller Bruce Milton

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type		Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
	20					20-25		
420	25					25-30	24-30	SILTY SAND: Brown, moist to wet, soft, friable, laminated. breaks along parting surfaces. Silt content approx. 10 percent. @25.7 feet, silt content increases to 40 percent. @28.1 silt content decreases to 10 percent.
415	30					30-35	30-31	SILTY SAND: Brown, moist to wet, soft, friable, laminated. breaks along parting surfaces. Silt content approx. 10 percent.
							31-31.8	SILTY SAND: Brown, moist to wet, soft, friable, laminated. breaks along parting surfaces. Silt content approx. 40 percent.
							31.8-35	SILTY SAND: Brown, damp to moist, soft, friable, laminated. breaks along parting surfaces. Silt content approx. 10 percent.
410	35							T.D. = 35.00 '
405	40							

STATE OF TEXAS 10/10/16 James R. Davidson Geology 10493 LICENSED PROFESSIONAL GEOSCIENTIST

ERM Environmental Resources Management

MW-23
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-23 Date Drilled 2016-04-13

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 45.00 ' Boring Diam. 9.00 "

N. Coord. 10505630.00 ' E. Coord. 3571983.00 ' Surface Elevation 434.36 ' Ft. MSL Datum

Screen: Type PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type PVC Diam. 2.00 " Length 30.00 ' Sump Length 0.40 '

Top of Casing Elevation 437.25 ' Stickup 2.89 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

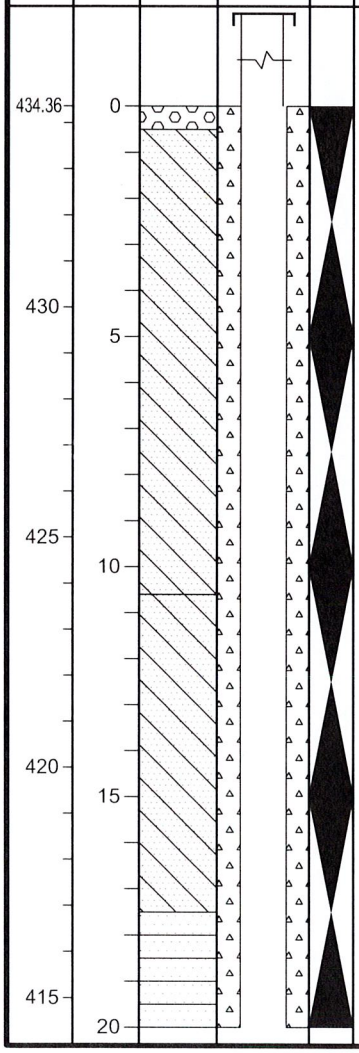
Drilling Company Best Drilling Services Driller Sonny Tobola

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer



Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
0-5	0-0.5	GRAVEL: Roadbase - crushed limestone with silt matrix. greenish-gray (Gley 1/6/10Y).
	0.5-10.6	SANDY CLAY: Fill Material - Light yellowish- brown (10YR 6/4), dry, thinly laminated, brittle. PP =1.0 TSF
5-10		
10-15	10.6-10.61	LIGNITE: Black organic plant material consisting of decaying rootlets and grass.
	10.61-17.5	SANDY CLAY: Dark red (2.5 YR 3/6), dry, firm to stiff, rootlets at 13.4 ft., becomes thinly bedded at 14.3 ft. Sharp basal contact.
15-20		
	17.5-27.4	SILTY SAND: Very dark grayish-brown (10YR 3/2) grading down to light gray (10YR 7/1), soft, friable; thinly bedded, sand is fine grained, well sorted, subangular to angular. @23.1 becomes mottled with dark yellowish-brown.

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ERM Environmental Resources Management

MW-23
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-23 Date Drilled 2016-04-13

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 45.00 ' Boring Diam. 9.00 "

N. Coord. 10505630.00 ' E. Coord. 3571983.00 ' Surface Elevation 434.36 ' Ft. MSL Datum

Screen: Type PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type PVC Diam. 2.00 " Length 30.00 ' Sump Length 0.40 '

Top of Casing Elevation 437.25 ' Stickup 2.89 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

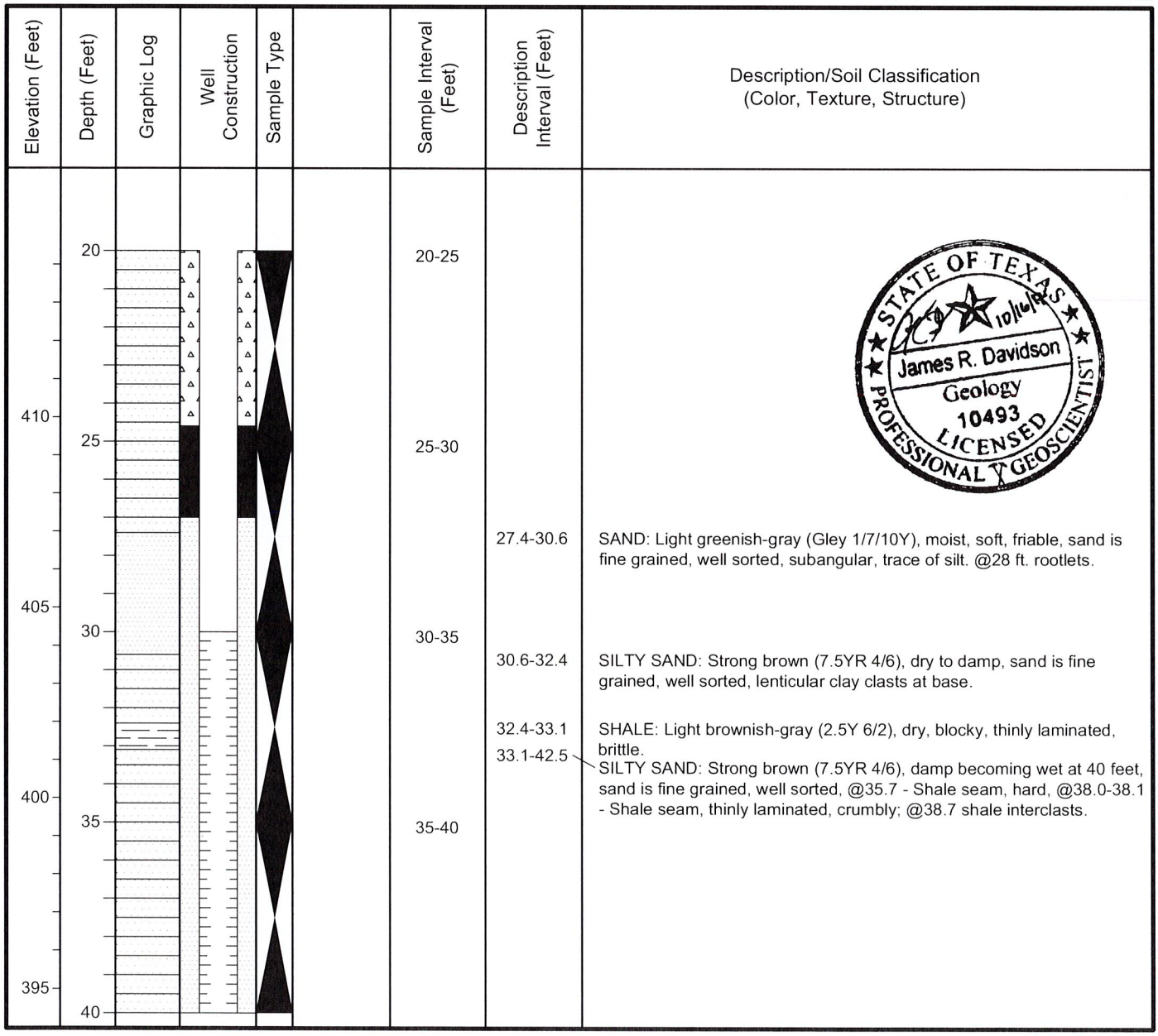
Drilling Company Best Drilling Services Driller Sonny Tobola

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer



ERM Environmental Resources Management

MW-23
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-23 Date Drilled 2016-04-13

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 45.00 ' Boring Diam. 9.00 "

N. Coord. 10505630.00 ' E. Coord. 3571983.00 ' Surface Elevation 434.36 ' Ft. MSL Datum

Screen: Type PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type PVC Diam. 2.00 " Length 30.00 ' Sump Length 0.40 '

Top of Casing Elevation 437.25 ' Stickup 2.89 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Drilling Services Driller Sonny Tobola

Drilling Method Hollow Stem Auger Log By Mike Kristoff

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type		Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
	40					40-45		
							42.5-43.3	SHALE: Light brownish-gray (2.5Y 6/2), dry, blocky, thinly laminated, brittle.
							43.3-45	Silty Sand
390	45							T.D. = 45.00 '
385	50							
380	55							
375	60							

STATE OF TEXAS
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10/14/16

ERM Environmental Resources Management

MW-28 DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-28 Date Drilled 2016-04-14

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 70.00' Boring Diam. 9.00 "

N. Coord. 10511130.00 ' E. Coord. 3573967.00 ' Surface Elevation 474.57 ' Ft. MSL Datum

Screen: Type PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type PVC Diam. 2.00 " Length 50.00 ' Sump Length 0.40 '

Top of Casing Elevation 477.52 ' Stickup 2.95 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Drilling Services Driller Sonny Tobola

Drilling Method Hollow Stem Auger Log By Don Whitley

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type	Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
474.57	0				0-5	0-5	NOT SAMPLED: Hydrovac
470	5				5-10	5-18	SANDY CLAY: 7.5YR/5/4 Brown and 7.5YR/7/1 Light Gray, thinly laminated, damp, semi- to non-plastic, 2.0-2.5 TSF, sand approx. 30 %: fine grained, subangular. @ 10 ft, sand content decreases to approx. 10%, breaks along laminae.
465	10				10-15		
460	15				15-20		
455	20					18-18.4	CLAYEY SAND: 7.5YR/5/4 Brown and 7.5YR/7/1 Light Gray, thinly bedded, fine grained, uncemented, cohesive, well sorted, subangular, clay approx. 40% - dry, damp.
						18.4-22.5	SANDY CLAY: 7.5YR/5/4 Brown and 7.5YR/7/1 Light Gray, thinly laminated, damp, semi- to non-plastic, 2.0-2.5 TSF, sand approx. 30% - fine grained, subangular, lenticular pockets of sand - fine grained, subangular, 7.5YR/5/8 strong brown.

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ERM Environmental Resources Management

MW-28 DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-28 Date Drilled 2016-04-14

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 70.00' Boring Diam. 9.00 "

N. Coord. 10511130.00 ' E. Coord. 3573967.00 ' Surface Elevation 474.57 ' Ft. MSL Datum

Screen: Type PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type PVC Diam. 2.00 " Length 50.00 ' Sump Length 0.40 '

Top of Casing Elevation 477.52 ' Stickup 2.95 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

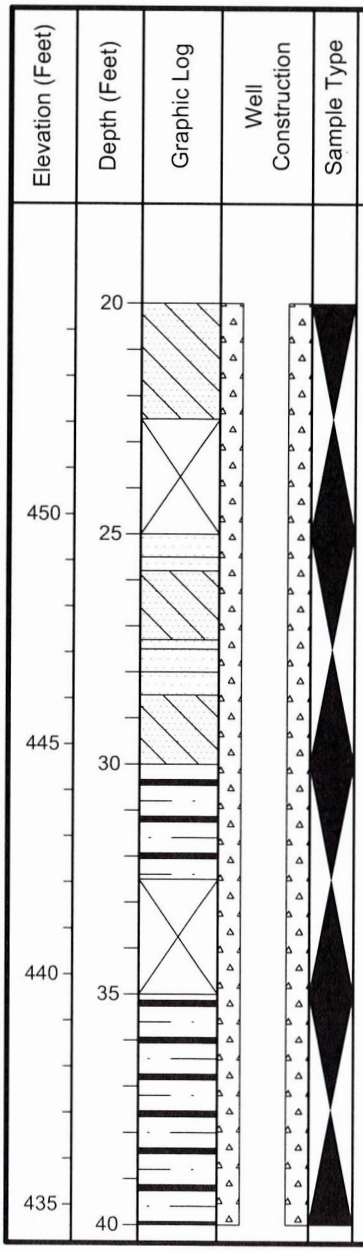
Drilling Company Best Drilling Services Driller Sonny Tobola

Drilling Method Hollow Stem Auger Log By Don Whitley

SKETCH MAP

NOTES

PP = Pocket Penetrometer



Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
20-25		
	22.5-25	No Recovery
25-30	25-25.8	SILTY SAND: Gley 1/7/10Y Light Greenish Gray, fine grained, subangular to subrounded, uncemented, well sorted, damp to moist, cohesive, silt approx. 10%
	25.8-27.3	SANDY CLAY: 7.5YR/5/4 Brown and 7.5YR/7/1 Light Gray, thinly laminated, damp, semi- to non-plastic, 2.0-2.5 TSF, sand approx. 30% - fine grained, subangular, lenticular pockets of sand - fine grained, subangular, 7.5YR/5/8 strong brown.
	27.3-28.5	SILTY SAND: Gley 1/7/10Y Light Greenish Gray, fine grained, subangular to subrounded, uncemented, well sorted, dry to damp, cohesive, silt approx. 10%
	28.5-30	SANDY CLAY: 7.5YR/5/4 Brown and 7.5YR/7/1 Light Gray, thinly laminated, damp, semi- to non-plastic, 2.0-2.5 TSF, sand approx. 30% - fine grained, subangular, lenticular pockets of sand - fine grained, subangular, 7.5YR/5/8 strong brown.
30-35	30-32.5	INTERBEDDED CLAY AND SAND: Silty Sand - 30-30.3 ft, 31.2-31.4 ft, 32.2-32.4 ft. - Gley 1/7/10Y Light Greenish Gray, fine grained, subangular to subrounded, uncemented, well sorted, damp to moist, cohesive, silt approx. 10%. Sandy Clay - 30.3-31.2 ft, 31.4-32.2 ft, 32.4-32.5 ft. - 7.5YR/5/4 Brown and 7.5YR/7/1 Light Gray, thinly laminated, damp, semi- to non-plastic, 2.0-2.5 TSF, sand approx. 30% - fine grained, subangular, lenticular pockets of sand - fine grained, subangular, 7.5YR/5/8 strong brown.
	32.5-35	No Recovery
35-40	35-40	INTERBEDDED CLAY AND SAND: Thinly bedded, alternating Silty Sand and Shale. Silty Sand - 7.5YR/5/8 Strong brown, fine grained, uncemented, well sorted, subangular, dry to damp. Shale - 7.5YR/5/1 Gray, non-plastic, dry, 2.0 TSF, trace sand.

STATE OF TEXAS 10/16/16 James R. Davidson Geology 10493 LICENSED PROFESSIONAL GEOSCIENTIST

ERM Environmental Resources Management

MW-28
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-28 Date Drilled 2016-04-14

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 70.00' Boring Diam. 9.00 "

N. Coord. 10511130.00 ' E. Coord. 3573967.00 ' Surface Elevation 474.57 ' Ft. MSL Datum

Screen: Type PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type PVC Diam. 2.00 " Length 50.00 ' Sump Length 0.40 '

Top of Casing Elevation 477.52 ' Stickup 2.95 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Drilling Services Driller Sonny Tobola

Drilling Method Hollow Stem Auger Log By Don Whitley

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type		Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
	40					40-45	40-45	INTERBEDDED CLAY AND SAND: Shale - 40-40.4 ft, 40.8-41.1 ft, 41.4-43.8 ft, 44.2-45 ft. - non-plastic, thinly laminated, breaks along laminae, trace sand. Silty Sand - 40.4-40.8 ft, 41.1-41.4 ft, 43.8-44.2 ft. - 7.5YR/5/8 Strong brown, fine grained, uncemented, subangular, well sorted, damp to moist.
430	45					45-50	45-50	INTERBEDDED CLAY AND SAND: Thinly bedded, alternating Silty Sand and Shale. Silty Sand - 7.5YR/6/1 Gray, fine grained, uncemented, subangular, well sorted, dry to damp. Shale - Gley 1/2.5/10Y Greenish Black, non-plastic, dry, trace sand.
425	50					50-55	50-56.6	SHALE: Gley 1/2.5/10Y Greenish Black, non-plastic, dry to damp, thinly laminated, breaks along laminae, trace sand, has thin beds of fine grained sand throughout. @ 52.9-53.2 Silty Sand seam - 7.5YR/4/3 Brown, fine grained, uncemented, subangular, wet.
420	55					55-60		
							56.6-57.1	SILTY SAND: 7.5YR/4/2 Brown, fine grained, uncemented, subangular, wet to saturated
							57.1-58.5	SHALE: Gley 1/2.5/10Y Greenish Black, non-plastic, dry to damp, thinly laminated, breaks along laminae, trace sand, has thin beds of fine grained sand throughout
							58.5-60	No Recovery
415	60							

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ERM Environmental Resources Management

MW-28
DRILLING LOG

Proj. No. 0345059 Boring/Well ID MW-28 Date Drilled 2016-04-14

Project Limestone CCR Rule Well Installation Owner NRG Energy

Location Limestone EGS Boring T.D. 70.00' Boring Diam. 9.00 "

N. Coord. 10511130.00 ' E. Coord. 3573967.00 ' Surface Elevation 474.57 ' Ft. MSL Datum

Screen: Type PVC Diam. 2.00 " Length 10.00 ' Slot Size 0.01 "

Casing: Type PVC Diam. 2.00 " Length 50.00 ' Sump Length 0.40 '

Top of Casing Elevation 477.52 ' Stickup 2.95 '

Depth to Water: 1. Ft. 0.00 ( ) 2. Ft. 0.00 ( )

Drilling Company Best Drilling Services Driller Sonny Tobola

Drilling Method Hollow Stem Auger Log By Don Whitley

SKETCH MAP

NOTES

PP = Pocket Penetrometer

Elevation (Feet)	Depth (Feet)	Graphic Log	Well Construction	Sample Type		Sample Interval (Feet)	Description Interval (Feet)	Description/Soil Classification (Color, Texture, Structure)
410	60					60-65	60-60.7 60.7-69.5	INTERBEDDED CLAY AND SAND: Thinly alternating Silty Sand and Shale. Silty Sand - 7.5YR/6/1 Gray, fine grained, uncemented, subangular, well sorted, dry to damp. Shale - Gley 1/2.5/10Y Greenish Black, non-plastic, dry, trace sand. SHALE: Gley 1/2.5/10Y Greenish Black, non-plastic, dry to damp, thinly laminated, breaks along laminae, trace sand, has thin beds of fine grained sand throughout. @ 61.5-61.7 - Silty Sand lense, 7.5YR/4/2 Brown
405	65					65-70		
400	70							T.D. = 70.00'
395	75							
	80							

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BORING LOG and WELL CONSTRUCTION

MW-47

Client: NRG	TRC Project #: 528473
Site: Limestone	Start Date: 12.12.23 - 0855
Address: 3964 FM 39, Jewett, TX 7584	Finish Date: 12.12.23 - 1000
Project: CCR - Well Installation	Permit #: -
Drilling Method: Hollow Stem Auger (HSA)	TRC Site Rep.: Jessica Atwell
Boring Depth (ft bgs): 25'	TRC Reviewer: Tony Dworaczyk
Boring Diameter (in): 8"	X-Y Coord. System: GPS
Sampling Method: Split Spoon	Lat: 31.426821
Well Material/Size: 40 Schedule PVC - 2"	Long: -96.242913
Field Screening Parameter: Water Quality/Depth to Water	Elevation Datum: -
Units: feet	Ground Elevation (ft): 429.75'
Well Depth (ft bgs): 25' / Well Depth (ft toc): 28.1"	Well Elevation (ft): 432.85'
Surface Casing Length (ft): 3.1' / Screen Length (ft): 10'	Well Measuring Point: -
Drilling Company: Best Drilling Services	Depth to Water (ft bgs): 18'
Drilling Crew: Lawrence, Brandon , and LeDarris	Date/Time: 12.12.2023 - 1000

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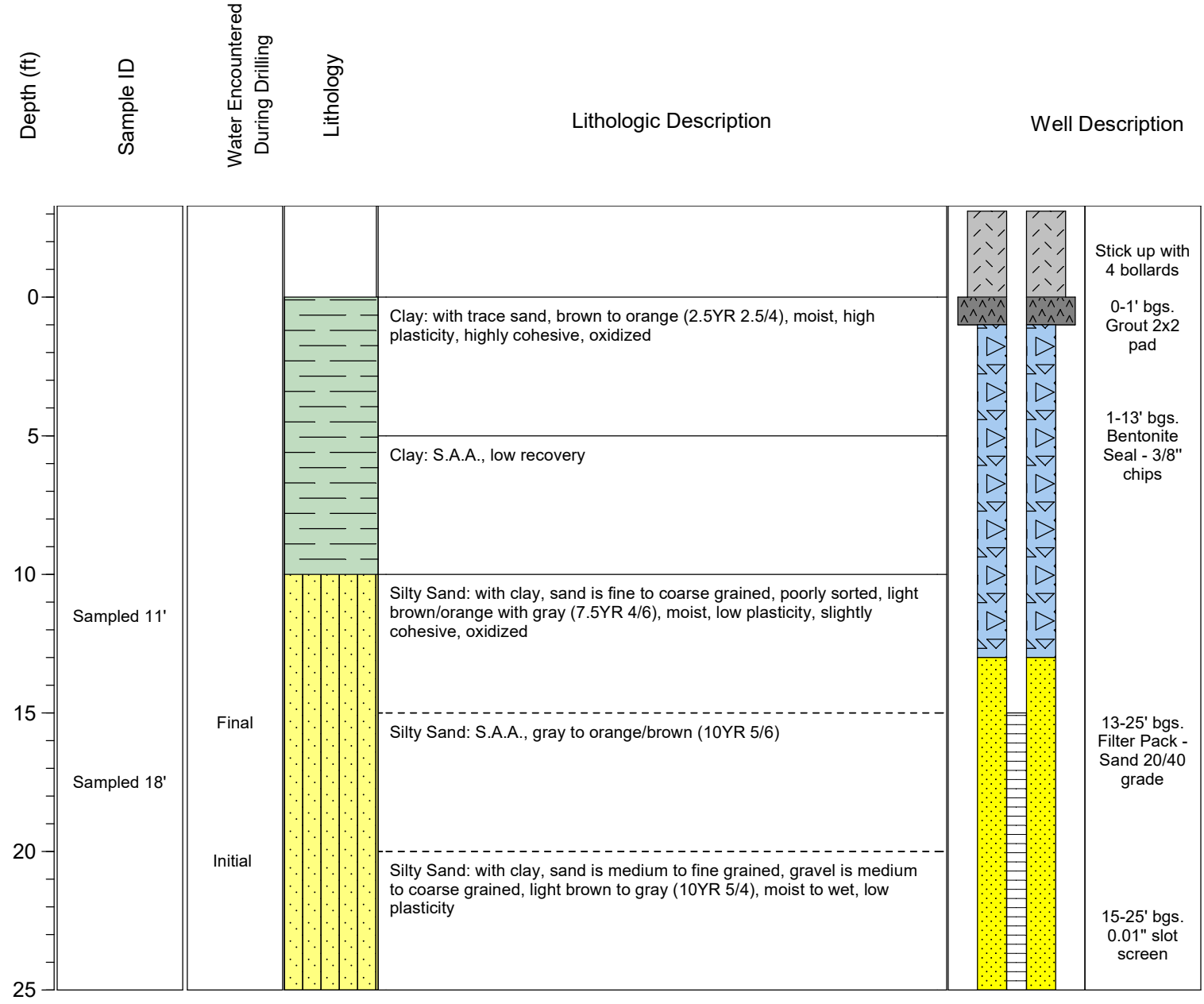
Depth (ft)	Sample ID	Water Encountered During Drilling	Lithology	Lithologic Description	Well Description
0				Clay: Light orange/brown (7.5YR 5/4), moist, high plasticity, highly cohesive, oxidized	Stick up with 4 bollards 0-1' bgs. Grout 2x2 pad
5				Silty Clay: w/ 25% sand, fine to medium grained, well-sorted, light brown/orange (7.5YR 4/6) w/ layers of olive gray/gray, moist, low to no plasticity, slightly cohesive, oxidized Intermitten layers of sandy clay w/ silt	1-13' bgs. Bentonite Seal - 3/8" chips
10	Sampled 13'			Silty Sand: w/ clay, fine to medium grained, brownish orange (7.5YR 5/8), moist, oxidized	
15	Sampled 17'	Initial		Silty Sand: S.A.A., gray to orange/brown (10YR 5/4)	13-25' bgs. Filter Pack - Sand 20/40 grade
20		Final		Silty Sand: w/ gravel, sand is medium to fine grained, gravel is medium to coarse grained, (2.5Y 5/3), moist, oxidized	15-25' bgs. 0.01" slot screen
25					

BORING LOG and WELL CONSTRUCTION

MW-48

Client: NRG	TRC Project #: 528473
Site: Limestone	Start Date: 12.12.23 - 1050
Address: 3964 FM 39, Jewett, TX 7584	Finish Date: 12.12.23 - 1140
Project: CCR - Well Installation	Permit #: -
Drilling Method: Hollow Stem Auger (HSA)	TRC Site Rep.: Jessica Atwell
Boring Depth (ft bgs): 25'	TRC Reviewer: Tony Dworaczyk
Boring Diameter (in): 8"	X-Y Coord. System: GPS
Sampling Method: Split Spoon	Lat: 31.42760
Well Material/Size: 40 Schedule PVC - 2"	Long: -96.24113
Field Screening Parameter: Water Quality/Depth to Water	Elevation Datum: -
Units: feet	Ground Elevation (ft): 432.68'
Well Depth (ft bgs): 25' Well Depth (ft toc): 28.3'	Well Elevation (ft): 435.98
Surface Casing Length (ft): 3.3' Screen Length (ft): 10'	Well Measuring Point: -
Drilling Company: Best Drilling Services	Depth to Water (ft bgs): 20'
Drilling Crew: Lawrence, Brandon , and LeDarris	Date/Time: 12.12.2023 - 1140

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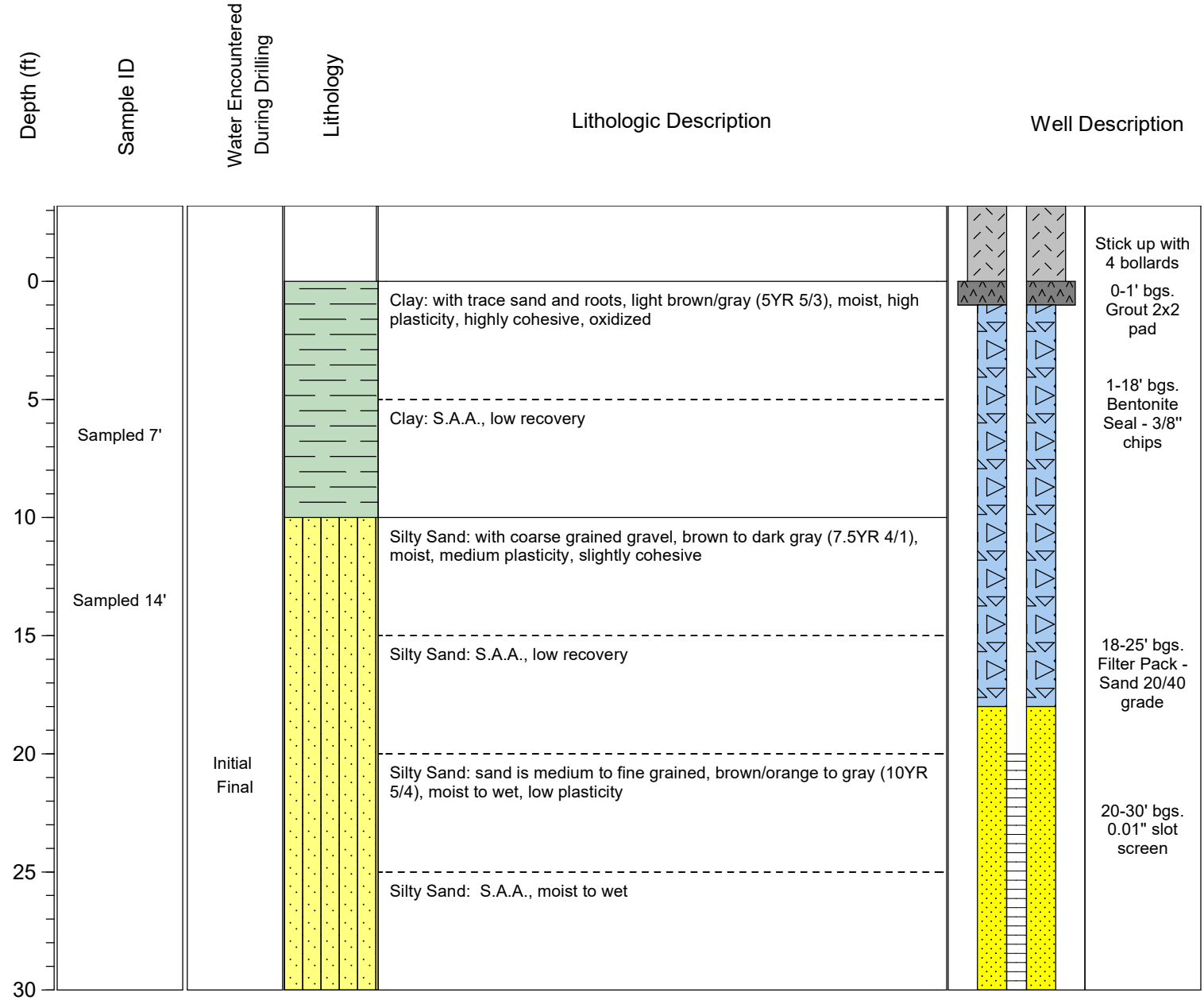


BORING LOG and WELL CONSTRUCTION

MW-49

Client: NRG	TRC Project #: 528473
Site: Limestone	Start Date: 12.12.23 - 1315
Address: 3964 FM 39, Jewett, TX 7584	Finish Date: 12.12.23 - 1420
Project: CCR - Well Installation	Permit #: -
Drilling Method: Hollow Stem Auger (HSA)	TRC Site Rep.: Jessica Atwell
Boring Depth (ft bgs): 25'	TRC Reviewer: Tony Dworaczyk
Boring Diameter (in): 8"	X-Y Coord. System: GPS
Sampling Method: Split Spoon	Lat: 31.42823
Well Material/Size: 40 Schedule PVC - 2"	Long: -96.23936
Field Screening Parameter: Water Quality/Depth to Water	Elevation Datum: -
Units: feet	Ground Elevation (ft): 436.33'
Well Depth (ft bgs): 30' / Well Depth (ft toc): 33.2'	Well Elevation (ft): 439.52'
Surface Casing Length (ft): 3.2' / Screen Length (ft): 10'	Well Measuring Point: -
Drilling Company: Best Drilling Services	Depth to Water (ft bgs): 20'
Drilling Crew: Lawrence, Brandon , and LeDarris	Date/Time: 12.12.23 - 1420

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BORING LOG and WELL CONSTRUCTION

MW-50

Client: NRG	TRC Project #: 528473
Site: Limestone	Start Date: 12.13.23 - 0730
Address: 3964 FM 39, Jewett, TX 7584	Finish Date: 12.13.23 - 0850
Project: CCR - Well Installation	Permit #: -
Drilling Method: Hollow Stem Auger (HSA)	TRC Site Rep.: Jessica Atwell
Boring Depth (ft bgs): 25'	TRC Reviewer: Tony Dworaczyk
Boring Diameter (in): 8"	X-Y Coord. System: GPS
Sampling Method: Split Spoon	Lat: 31.42823
Well Material/Size: 40 Schedule PVC - 2"	Long: -96.23936
Field Screening Parameter: Water Quality/Depth to Water	Elevation Datum: -
Units: feet	Ground Elevation (ft): 430.05'
Well Depth (ft bgs): 20' / Well Depth (ft toc): 22.79'	Well Elevation (ft): 432.84'
Surface Casing Length (ft): 2.79' / Screen Length (ft): 10'	Well Measuring Point: -
Drilling Company: Best Drilling Services	Depth to Water (ft bgs): 10'
Drilling Crew: Lawrence, Brandon , and LeDarris	Date/Time: 12.13.23 - 085

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