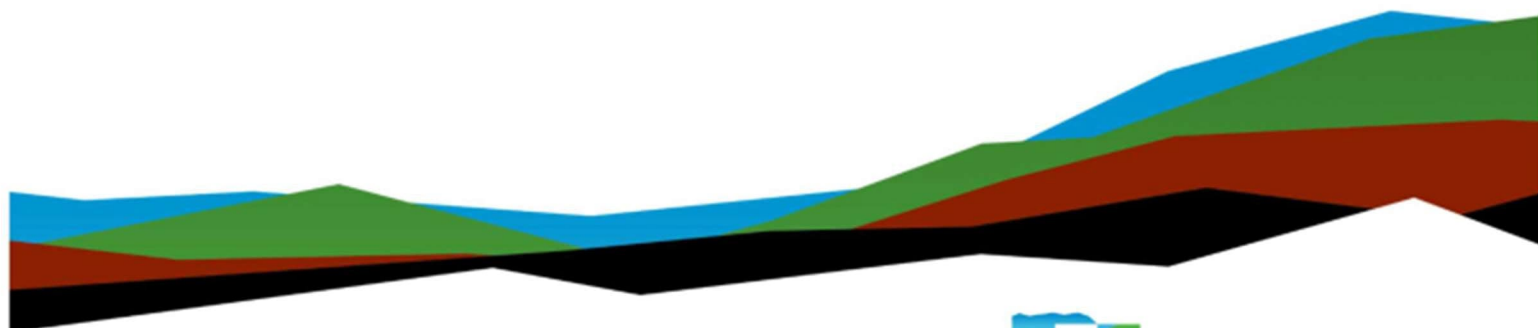


2025 First Quarter Groundwater Monitoring Report

East Blinebry Drinkard Unit (EBDU) #37
Lea County, New Mexico

April 23, 2025 | Project No. KH247030

Prepared for:
Apache Corporation
303 Veterans Airpark Ln
Midland, Texas 79705



Nationwide
Terracon.com

- Facilities
- Environmental
- Geotechnical
- Materials



5847 50th Street
Lubbock, TX 79424
P (806) 300-0140
F (806) 797-0947
Terracon.com

April 23, 2025

Apache Corporation
303 Veterans Airpark Ln
Midland, Texas 79705

Attn: Mr. Barrett Bole
P 432-818-1108
E barrett.bole@apachecorp.com

RE: 2025 First Quarter Groundwater Monitoring Report - Amended
East Blinebry Drinkard Unit (EBDU) #37
Lea County, New Mexico

Terracon Project No. KH247030

Dear Mr. Bole:

This amended report is being submitted with updated tables and figures to resolve inconsistencies with historical data and laboratory data, including significant figures and transcription errors. Additional amendments were made to the report for clarity purposes. The amended tables are presented as attachments Table 1, Table 2, and Table 3, which include updates to Exhibit 3 and Exhibit 4.

Terracon appreciates this opportunity to provide environmental consulting services to Apache. Should you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
Terracon

Kristen Morris

A handwritten signature in black ink, appearing to read "John Grams".

Kristen Morris, PG (TX)
Staff Geologist

John Grams, PG (TX)
Senior Geologist

Enclosure

2025 First Quarter Groundwater Monitoring Report
East Blinberry Drinkard Unit (EBDU) #37 | Lea County, New Mexico
April 23, 2025 | Terracon Project No. KH247030



Table of Contents

Table of Contents..... i

1.0 Executive Summary..... 1-1

2.0 Introduction 2-1

 Background..... 2-1

3.0 Field Activities 3-2

 Water Level Measurements..... 3-2

 Sampling Collection and Handling..... 3-2

 Laboratory Analytical Methods..... 3-3

 Investigation-Derived Waste (IDW)..... 3-3

4.0 Analytical Results..... 4-1

 Groundwater Analytical Results 4-1

 TMW-17 4-2

5.0 Conclusion and Summary 5-3

6.0 Recommendations..... 6-3

TABLES

- Table 1 – Groundwater Gauging Measurements
- Table 2 – Summary of Groundwater Analytical Results
- Table 3 – Summary of Human Health Standards

EXHIBITS

- Exhibit 1 – Topographic Map
- Exhibit 2 – Monitoring Well Location Map
- Exhibit 3 – Groundwater Gradient Map February 2025
- Exhibit 4 – Well Hydrographs
- Exhibit 5 – Chloride Concentration Map February 2025
- Exhibit 6 – TDS Concentration Map February 2025

APPENDICES

- Appendix A – Laboratory Data Packages

2025 First Quarter Groundwater Monitoring Report
East Blinebry Drinkard Unit (EBDU) #37 | Lea County, New Mexico
April 23, 2025 | Terracon Project No. KH247030



1.0 Executive Summary

Terracon Consultants, Inc. (Terracon) has prepared this report on behalf of Apache Corporation (Apache) for submittal to the New Mexico Oil Conservation Division (NMOCD) District I in Hobbs and Santa Fe, New Mexico.

This report presents the results of the groundwater monitoring activities at the East Blinebry Drinkard Unit (EBDU) #37 (Site) located in Lea County, New Mexico, geodic position North 32.479569° and West -103.122061° which occurred in February 2025. For this work Terracon gauged and sampled groundwater in the Windmill Well and monitoring wells TMW-1 through TMW-24 between February 3rd to February 7th, 2025. Groundwater samples were analyzed for chloride and Total Dissolved Solids (TDS) in monitoring wells TMW-1 through TMW-24 and the Windmill Well. Samples from monitoring wells TMW-1, TMW-3, TMW-21, and the Windmill Well were sampled for barium and TMW-5, TMW-17 and the Windmill Well were sampled for the human health standard constituents in the NM WQCC list in subsections A, B and C of 20.6.2.3103 NMAC. The groundwater sample locations are presented in **Exhibit 2**.

Groundwater flow is to the South-Southwest, consistent with past observations. Chloride and TDS were found to be highest in the center of the project area centered on well TMW-17. Samples collected from discrete depth levels in TMW-17 show higher chloride and TDS concentrations at the base of the well than at the top of the water column. These results are presented and discussed in greater detail in the following sections.

2.0 Introduction

This report presents groundwater monitoring results for a sampling event which occurred February 3rd through February 7th, 2025 at the East Blinebry Drinkard Unit (EBDU) #37 (Site) located in Lea County, New Mexico. The geodic position is North 32.479569° and West -103.122061°. **Exhibit 1** presents a site location map. **Exhibit 2** presents a site map with well locations.

Background

On July 4, 2019, a spill originated from a flowline carrying produced water near a pipeline junction located about 720 feet east from EBDU Well #37. Produced water flowed west approximately 675 feet from the release point. Approximately 350 feet west from the release the water flowed south about 450 feet before terminating in a low-lying area. The volume of the release and recovered fluid are unknown. The spill covered an area measuring about 31,320 square feet or about 0.72 acres. The initial C-141 was submitted on July 26, 2019, and was assigned remediation permit number 1RP-5636.

2025 First Quarter Groundwater Monitoring Report
East Blinberry Drinkard Unit (EBDU) #37 | Lea County, New Mexico
April 23, 2025 | Terracon Project No. KH247030



Apache responded to the release by excavating impacted soil at the release site and conducting a soil and groundwater investigation. A general timeline of the work completed to date is presented below:

- July 14, 2019 – release discovered
- July 17 to 25, 2019 – release delineation and soil sampling
- July 25 to August 8, 2019 – excavated to 12' over 4,431 ft² = 2,300 yds³ in the low-lying area.
- August 14-15, 2019 – advanced 4 direct push borings to 28-40 feet
- August 27-28, 2019 – advanced three borings with air rotary rig to 40-50 feet bgs.
- September 19, 2019 – installed two monitoring wells (TMW-1 and TMW-2).
- June 9 through July, 2020 – completed additional soil excavation
- September 19, 2020 – installed TMW-3 and TWM-4
- November 28-30, 2022 - installed TMW-5 and TMW-6
- June 12-13, 2023 – installed TMW-7 through TMW-10
- November 28 to December 12, 2023 – installed TMW-11 through TMW-24
- Groundwater monitoring events have occurred on or around the following dates: 09/23/2019, 12/26/2019, 09/30/2020, 12/07/2020, 03/11/2021, 06/10/2021, 10/11/2021, 12/22/2021, 03/01/2022, 05/23/2022, 08/16/2022, 12/15/2022, 03/14/2023, 06/22/2023, 09/06/2023, 12/21/2023, 03/14/2024, 05/02/2024, 11/06/2024, and 02/03/2025.

3.0 Field Activities

Water Level Measurements

Depth to water in the monitoring wells was measured utilizing an electronic water level meter. Depth to groundwater for the February 2025 sampling event ranged from 50.67 feet below grade surface (bgs) (TMW-1) to 69.08 feet bgs (TMW-22). A summary of the groundwater gauging data is presented in **Table 1**. Hydrographs graphically presenting water levels over time are presented as **Exhibit 4**.

The groundwater potentiometric surface as measured on February 3, 2025 is depicted in **Exhibit 3**. Groundwater flow is generally to the southwest with a gradient of approximately 0.0014 ft/ft, which is generally consistent with past monitoring data. It is worth noting that the groundwater anomalies at TMW-19 and TMW-4 that were reported during gauging events in May 2024 and October 2024 (Larson, May 8, 2024; and Terracon January 23, 2025) are absent or far less pronounced.

Sampling Collection and Handling

Groundwater samples were collected using low-flow techniques for monitoring wells TMW-1 through TMW-24. The monitoring wells were purged prior to sampling until consistent values were obtained for select geochemical parameters (temperature, pH, conductivity, dissolved oxygen (DO), and oxidation reduction potential (ORP)). Once these parameters stabilized, the groundwater samples were collected.

2025 First Quarter Groundwater Monitoring Report
East Blinberry Drinkard Unit (EBDU) #37 | Lea County, New Mexico
April 23, 2025 | Terracon Project No. KH247030



Groundwater samples were collected into laboratory-prepared containers containing the appropriate preservative, labeled, and placed on ice in sample coolers. The samples were secured with a custody seal and delivered to the selected analytical laboratory. The sample coolers and completed chain-of-custody forms were relinquished to Eurofins Environment Testing (Eurofins) in Lubbock, Texas for analysis on standard turnaround times.

One groundwater sample was collected from the on-site Windmill Well. At the time of sampling, the Windmill Well was actively pumping groundwater into a cattle trough. The sample was collected directly from the Windmill Well outlet.

Additional groundwater samples from TMW-3, TMW-5, and TMW-17 were collected using Hydrasleeve™ passive samplers to allow comparison of results using different sampling methods. The Hydrasleeve™ samplers were set at the mid-point of the water column in TMW-3 and TMW-5 and were allowed to equilibrate in the water column for twenty-four hours before collecting the water samples. Water samples were collected directly from the Hydrasleeve™ into laboratory-supplied sample containers.

In order to ensure this data is representative and not biased based on sampling depth, TMW-17 was sampled at three different depths (Top, Middle and Bottom) using three Hydrasleeve™s. Monitoring well TMW-17 has historically shown higher chloride concentrations than the other wells at the site. Water with higher chloride concentrations is denser than water with lower chloride concentrations. This could create a stratified water column with higher chloride concentrations at deeper depths. Additionally, TMW-17 was sampled using low flow techniques to rule out a bias based on sampling method.

Laboratory Analytical Methods

The groundwater samples collected from TMW-1 through TMW-24 and the Windmill Well were analyzed for chloride using EPA method 300.0 and TDS using EPA method SM 2540C.

Additionally, the groundwater samples collected from TMW-17, and the Windmill Well were analyzed for barium using Method SW846 6020B.

The groundwater sample collected from TMW-17, and the Windmill Well were analyzed for NMAC Human Health Standards (20.6.2.3103 NMAC) including volatile organic compounds (VOCs) using Method SW846 8260D, semi volatile organic compounds (SVOCs) using Method SW846 8270E, polychlorinated biphenyls (PCBs) by method SW846 8082A, anions (nitrate, nitrite, fluoride, sulfate, and chloride) using EPA Method 300.0, metals using Method SW846 6020B, mercury using Method SW846 7470A, general chemistry (pH and temperature) using Method SM 4500 H+ B, total phenols using EPA Method 420.4, total cyanide using EPA Method Kelada 01, TDS using Method SM 2540C, and radium-226 using EPA Method 903.0, and radium-228 using EPA Method 904.0.

Investigation-Derived Waste (IDW)

All excess purge water was containerized in 55-gallon drums located at each well and left on-site.

2025 First Quarter Groundwater Monitoring Report
East Blinberry Drinkard Unit (EBDU) #37 | Lea County, New Mexico
April 23, 2025 | Terracon Project No. KH247030



4.0 Analytical Results

Groundwater Analytical Results

Analytical results from the groundwater sampling event are summarized in **Tables 2 and 3**. Laboratory reports and chains of custody are presented in **Appendix A**.

Chloride was detected above laboratory Reporting Limits (RLs) in every well sampled during the February 2025 sampling event, with concentrations ranging from 47 milligrams per liter (mg/L) in TMW-16 to 7,120 mg/L from the mid-point sample in TMW-17. All wells sampled had chloride levels above the New Mexico Water Quality Control Commission (NMWQCC) applicable standard of 250 mg/L except for TMW-1, TMW-9, TMW-10, and TMW-16.

Total dissolved solids (TDS) were detected above laboratory RLs in every well sampled during the February 2025 sampling event. TDS concentrations ranged from 507 mg/L in TMW-16 to 13,300 mg/L from the mid-point sample in TMW-17. All the wells sampled had TDS levels above the NMWQCC applicable standard of 1,000 mg/L except for TMW-1, TMW-9, TMW-10, and TMW-16.

Barium was sampled in TMW-17, and the Windmill Well during the February 2025 sampling event. The analytical results for TMW-17 and the Windmill Well were reported as 0.259 mg/L, and 0.241 mg/L respectively. All the barium samples were above laboratory RLs but below the NMWQCC applicable standard of 2 mg/L.

TMW-17, and the Windmill Well were analyzed for NMAC Human Health Standards during the February 2025 sampling event. There were no detections above laboratory RLs for VOCs, SVOCs, PCBs, Radium-226, or Radium-228. With the exception of chloride, TDS, iron, and selenium, all other parameters were reported below the NMWQCC numerical standards.

The analytical results for NMAC Human Health Standards in the sample from the Windmill Well resulted in no detections above laboratory RLs for VOCs, SVOCs, PCBs, Radium-226, or Radium-228. With the exception of chloride and TDS, all other parameters were reported below the NMWQCC numerical standards.

2025 First Quarter Groundwater Monitoring Report
East Blinberry Drinkard Unit (EBDU) #37 | Lea County, New Mexico
April 23, 2025 | Terracon Project No. KH247030



TMW-17

Groundwater samples from monitoring well TMW-17 have historically exhibited chloride concentrations higher than the other wells at the site (Larson, May 8, 2024). During the September 2024 sampling event, TMW-17 was redeveloped by purging 12 well volumes of water prior to collecting the sample. The resultant sample reported higher chloride than had been seen previously. During the February 2025 sampling event, TMW-17 was sampled using a multi-level sample rig with three Hydrasleeve™s set up such that one sample was collected from near the base of the well at approximately 82 ft below top of casing, one sample was collected from near the mid-point of the water column at approximately 72 ft below top of casing, and one sample was collected from near the top of the water column at approximately 63 feet below top of casing. In addition, a sample was collected from the mid-point of the water column using low-flow sampling, and a duplicate of the low-flow sample was also collected from the mid-point of the water column. The results are shown in the table below.

Sample Location	Sample Collected Date	Chloride (mg/L)	TDS (mg/L)	Sample Notes
TMW-17 - HS- T	2/5/2025	3,250	9,000	HydraSleve - Top of water column
TMW-17 - HS - M	2/5/2025	6,080	13,400	HydraSleve - Mid-level in water column
TMW-17 - HS - B	2/5/2025	13,200*	39,000	HydraSleve - Bottom of water column
TMW-17 - LF	2/5/2025	7,120	13,300	Lo-Flow - Mid-level in water column
TMW-17 - LF (Dup 1)	2/5/2025	6,980	--	Lo-Flow - Mid-level in water column

* This value was previously reported as 132,00 mg/L in conjunction with TDS reported at 39,000 mg/L. Due to chloride being a constituent of TDS, it should not be possible for the chloride result to be larger than the TDS result for the same sample. The laboratory issued a correction to the dilution error with a result of 13,200 mg/L for chloride.

2025 First Quarter Groundwater Monitoring Report
East Blinberry Drinkard Unit (EBDU) #37 | Lea County, New Mexico
April 23, 2025 | Terracon Project No. KH247030



5.0 Conclusion and Summary

Groundwater flow in the area of the site is to the south southwest with a gradient of 0.0014 ft/ft. This is generally consistent with past observations. The groundwater anomalies suggesting mounding near TMW-4 and a sink near TMW-19 were not apparent in the data collected in February 2025. Careful review of the hydrographs (**Exhibit 4**) show occasional water level measurements that appear inconsistent with the other data (e.g. TMW-19 during the March, 2024 event, or TMW-4 during the October, 2024 event). Whether these inconsistencies represent actual conditions in the aquifer or measurement errors in the field will be made more clear with additional monitoring over time.

The chloride and TDS data from TWM-17 indicate higher concentrations of these chemicals of concern (COCs) deeper in the well. This stratification may also explain the anomalously high results reported from the October 2024 sampling of TMW-17, which occurred after purging the well of 12 well volumes to develop the well. This pumping may have drawn water from deeper levels of the well with higher chloride and TDS concentrations. It is possible this pumping at TMW-17 could have influenced the results seen at nearby TMW-14, TMW-15, and TMW-18, which all reported anomalously high chloride and TDS during the October 2024 sampling event.

The source of the chlorides present in TMW-17 is not understood; however, it appears unlikely the release reported on July 14, 2019, near the current location of TMW-7, could explain the observed distribution of chloride concentrations in monitoring wells at the site.

6.0 Recommendations

Apache and NM OCD have been engaged in ongoing discussions related to this location. Future work will be based upon the outcome of these discussions and the anticipated revised order from the NM Oil Conservation Commission.

TABLES

Table 1 – Groundwater Gauging Measurements

Table 2 – Summary of Groundwater Analytical Results

Table 3 – Summary of Human Health Standard Sampling
Analytical Results

Table 1
Groundwater Gauging Data
 Apache EBDU #37
 Incident NDHR1922141227 (1RP-5636)
 Lea County, New Mexico
 Terracon Project No. KH247030

Well No.	TOC Elevation (ft AMSL)	Screen Interval (ft BGS)	Date Gauged	Depth to Water (ft TOC)	Groundwater Elevation (feet AMSL)
TMW-1	3414.57	42.32 - 61.97	9/23/2019	46.18	3368.39
TMW-1	3414.57		12/26/2019	48.90	3365.67
TMW-1	3414.57		9/30/2020	49.31	3365.26
TMW-1	3414.57		12/7/2020	49.42	3365.15
TMW-1	3414.57		3/11/2021	49.41	3365.16
TMW-1	3414.57		6/10/2021	49.67	3364.9
TMW-1	3414.57		10/11/2021	50.90	3363.67
TMW-1	3414.57		12/22/2021	49.95	3364.62
TMW-1	3414.57		3/1/2022	49.92	3364.65
TMW-1	3414.57		5/23/2022	50.25	3364.32
TMW-1	3414.57		8/16/2022	50.64	3363.93
TMW-1	3414.57		12/15/2022	50.18	3364.39
TMW-1	3414.57		3/14/2023	50.16	3364.41
TMW-1	3414.57		6/22/2023	47.09	3367.48
TMW-1	3414.57		9/6/2023	50.31	3364.26
TMW-1	3414.57		12/21/2023	50.27	3364.3
TMW-1	3414.57		3/14/2024	50.14	3364.43
TMW-1	3414.57		10/23/2024	51.09	3363.48
TMW-1	3414.57		11/6/2024	51.12	3363.45
TMW-1	3414.57		2/3/2025	50.67	3363.90
TMW-2	3424.16	47.50 - 67.17	9/23/2019	55.80	3368.36
TMW-2	3424.16		12/26/2019	57.50	3366.66
TMW-2	3424.16		9/30/2020	58.01	3366.15
TMW-2	3424.16		12/7/2020	58.08	3366.08
TMW-2	3424.16		3/11/2021	58.00	3366.16
TMW-2	3424.16		6/10/2021	58.12	3366.04
TMW-2	3424.16		10/11/2021	58.54	3365.62
TMW-2	3424.16		12/22/2021	58.50	3365.66
TMW-2	3424.16		3/1/2022	58.48	3365.68
TMW-2	3424.16		5/23/2022	58.62	3365.54
TMW-2	3424.16		8/16/2022	58.98	3365.18
TMW-2	3424.16		12/15/2022	58.76	3365.40
TMW-2	3424.16		3/14/2023	58.70	3365.46
TMW-2	3424.16		6/22/2023	58.27	3365.89

Table 1
Groundwater Gauging Data (continued)

Well No.	TOC Elevation (ft AMSL)	Screen Interval (ft BGS)	Date Gauged	Depth to Water (ft TOC)	Groundwater Elevation (feet AMSL)
TMW-2	3424.16		9/6/2023	59.05	3365.11
TMW-2	3424.16		12/21/2023	58.95	3365.21
TMW-2	3424.16		3/14/2024	58.86	3365.30
TMW-2	3424.16		10/23/2024	59.55	3364.61
TMW-2	3424.16		2/3/2025	59.28	3364.88
TWM-3	3423.21	49.96 - 69.76	9/30/2020	57.62	3365.59
TWM-3	3423.21		12/7/2020	57.68	3365.53
TWM-3	3423.21		3/11/2021	57.59	3365.62
TWM-3	3423.21		6/10/2021	57.90	3365.31
TWM-3	3423.21		10/11/2021	58.31	3364.90
TWM-3	3423.21		12/22/2021	58.18	3365.03
TWM-3	3423.21		3/1/2022	58.14	3365.07
TWM-3	3423.21		5/23/2022	58.41	3364.80
TWM-3	3423.21		8/16/2022	58.87	3364.34
TWM-3	3423.21		12/15/2022	58.44	3364.77
TWM-3	3423.21		3/14/2023	58.36	3364.85
TWM-3	3423.21		6/22/2023	57.53	3365.68
TWM-3	3423.21		9/6/2023	58.85	3364.36
TWM-3	3423.21		12/21/2023	58.61	3364.60
TWM-3	3423.21		3/14/2024	58.47	3364.74
TWM-3	3423.21		10/23/2024	59.35	3363.86
TMW-3	3423.21		2/3/2025	58.97	3364.24
TMW-4	3423.19	49.96 - 69.76	9/30/2020	57.39	3365.80
TMW-4	3423.19		12/7/2020	57.45	3365.74
TMW-4	3423.19		3/11/2021	57.40	3365.79
TMW-4	3423.19		6/10/2021	57.60	3365.59
TMW-4	3423.19		10/11/2021	57.99	3365.20
TMW-4	3423.19		12/22/2021	57.90	3365.29
TMW-4	3423.19		3/1/2022	57.87	3365.32
TMW-4	3423.19		3/29/2022	57.89	3365.30
TMW-4	3423.19		5/23/2022	58.05	3365.14
TMW-4	3423.19		8/16/2022	58.48	3364.71
TMW-4	3423.19		12/15/2022	58.15	3365.04
TMW-4	3423.19		3/14/2023	58.07	3365.12
TMW-4	3423.19		6/22/2023	57.28	3365.91
TMW-4	3423.19		9/6/2023	58.45	3364.74
TMW-4	3423.19		12/20/2023	58.31	3364.88
TMW-4	3423.19		3/14/2024	58.19	3365.00
TMW-4	3423.19		10/23/2024	57.61	3365.58
TMW-4	3423.19		2/3/2025	58.65	3364.54

Table 1
Groundwater Gauging Data (continued)

Well No.	TOC Elevation (ft AMSL)	Screen Interval (ft BGS)	Date Gauged	Depth to Water (ft TOC)	Groundwater Elevation (feet AMSL)
TMW-5	3421.86	54.37 - 74.32	12/15/2022	57.91	3363.95
TMW-5	3421.86		3/14/2023	57.27	3364.59
TMW-5	3421.86		6/22/2023	55.63	3366.23
TMW-5	3421.86		9/6/2023	57.63	3364.23
TMW-5	3421.86		12/20/2023	57.49	3364.37
TMW-5	3421.86		3/14/2024	57.55	3364.31
TMW-5	3421.86		10/23/2024	58.2	3363.66
TMW-5	3421.86		2/3/2025	57.85	3364.01
TMW-6	3426.55	54.37 - 74.32	12/15/2022	62.17	3364.38
TMW-6	3426.55		3/14/2023	62.08	3364.47
TMW-6	3426.55		6/22/2023	61.41	3365.14
TMW-6	3426.55		9/6/2023	61.95	3364.60
TMW-6	3426.55		12/20/2023	61.88	3364.67
TMW-6	3426.55		3/14/2024	61.79	3364.76
TMW-6	3426.55		10/23/2024	62.29	3364.26
TMW-6	3426.55		2/3/2025	62.18	3364.37
TMW-7	3425.93	61.29 - 80.78	6/19/2023	60.35	3365.58
TMW-7	3425.93		6/22/2023	63.34	3362.59
TMW-7	3425.93		9/6/2023	60.98	3364.95
TMW-7	3425.93		12/20/2023	60.91	3365.02
TMW-7	3425.93		3/14/2024	60.81	3365.12
TMW-7	3425.93		10/23/2024	61.25	3364.68
TMW-7	3425.93		2/3/2025	61.22	3364.71
TMW-8	3420.08	53.83 - 73.74	6/20/2023	54.04	3366.04
TMW-8	3420.08		6/22/2023	54.02	3366.06
TMW-8	3420.08		9/6/2023	55.39	3364.69
TMW-8	3420.08		12/20/2023	55.23	3364.85
TMW-8	3420.08		3/14/2024	55.12	3364.96
TMW-8	3420.08		10/23/2024	55.59	3364.49
TMW-8	3420.08		2/3/2025	55.59	3364.49
TMW-9	3417.49	49.41 - 68.72	6/21/2023	51.11	3366.38
TMW-9	3417.49		6/22/2023	51.14	3366.35
TMW-9	3417.49		9/6/2023	53.66	3363.83
TMW-9	3417.49		12/21/2023	53.55	3363.94
TMW-9	3417.49		3/14/2024	53.45	3364.04
TMW-9	3417.49		10/23/2024	54.36	3363.13
TMW-9	3417.49		2/3/2025	53.93	3363.56

Table 1
Groundwater Gauging Data (continued)

Well No.	TOC Elevation (ft AMSL)	Screen Interval (ft BGS)	Date Gauged	Depth to Water (ft TOC)	Groundwater Elevation (feet AMSL)
TMW-10	3418.21	49.68 - 68.99	6/20/2023	51.57	3366.64
TMW-10	3418.21		6/22/2023	51.61	3366.60
TMW-10	3418.21		9/6/2023	54.21	3364.00
TMW-10	3418.21		12/21/2023	54.12	3364.09
TMW-10	3418.21		3/14/2024	54.02	3364.19
TMW-10	3418.21		10/23/2024	54.90	3363.31
TMW-10	3418.21		2/3/2025	54.50	3363.71
TMW-11	3424.35	53.30 - 73.27	12/21/2023	59.92	3364.43
TMW-11	3424.35		3/14/2024	58.85	3365.50
TMW-11	3424.35		10/23/2024	59.5	3364.85
TMW-11	3424.35		2/3/2025	59.29	3365.06
TMW-12	3427.22	60.16 - 82.13	12/21/2023	61.65	3365.57
TMW-12	3427.22		3/14/2024	61.57	3365.65
TMW-12	3427.22		10/23/2024	62	3365.22
TMW-12	3427.22		2/3/2025	61.94	3365.28
TMW-13	3428.98	63.24 - 83.21	12/20/2023	63.75	3365.23
TMW-13	3428.98		3/14/2024	63.68	3365.30
TMW-13	3428.98		10/23/2024	64.07	3364.91
TMW-13	3428.98		2/3/2025	64.04	3364.94
TMW-14	3429.54	64.96 - 84.93	12/20/2023	65.02	3364.52
TMW-14	3429.54		3/14/2024	64.99	3364.55
TMW-14	3429.54		10/23/2024	65.35	3364.19
TMW-14	3429.54		2/3/2025	65.31	3364.23
TMW-15	3425.97	58.97 - 78.94	12/20/2023	61.79	3364.18
TMW-15	3425.97		3/14/2024	61.71	3364.26
TMW-15	3425.97		10/23/2024	62.19	3363.78
TMW-15	3425.97		2/3/2025	62.09	3363.88
TMW-16	3423.65	59.14 - 81.11	12/20/2023	60.19	3363.46
TMW-16	3423.65		3/14/2024	60.08	3363.57
TMW-16	3423.65		10/23/2024	60.74	3362.91
TMW-16	3423.65		2/3/2025	60.54	3363.11
TMW-17	3425.68	60.81 - 80.78	12/20/2023	61.56	3364.12
TMW-17	3425.68		3/14/2024	61.43	3364.25
TMW-17	3425.68		10/23/2024	62.05	3363.63
TMW-17	3425.68		2/3/2025	61.84	3363.84

Table 1
Groundwater Gauging Data (continued)

Well No.	TOC Elevation (ft AMSL)	Screen Interval (ft BGS)	Date Gauged	Depth to Water (ft TOC)	Groundwater Elevation (feet AMSL)
TMW-18	3425.61	64.57 - 84.51	12/20/2023	62.15	3363.46
TMW-18	3425.61		3/14/2024	62.01	3363.60
TMW-18	3425.61		10/23/2024	62.55	3363.06
TMW-18	3425.61		2/3/2025	62.45	3363.16
TMW-19	3423.78	59.66 - 79.63	12/20/2023	60.92	3362.86
TMW-19	3423.78		3/14/2024	61.90	3361.88
TMW-19	3423.78		10/23/2024	61.35	3362.43
TMW-19	3423.78		11/5/2024	61.42	3362.36
TMW-19	3423.78		2/3/2025	61.26	3362.52
TMW-20	3429.34	53.90 - 73.87	12/20/2023	65.26	3364.08
TMW-20	3429.34		3/14/2024	65.21	3364.13
TMW-20	3429.34		10/23/2024	65.59	3363.75
TMW-20	3429.34		2/3/2025	65.55	3363.79
TMW-21	3432.20	51.15 - 71.12	12/20/2023	67.31	3364.89
TMW-21	3432.20		3/14/2024	67.29	3364.91
TMW-21	3432.20		10/23/2024	67.52	3364.68
TMW-21	3432.20		11/6/2024	67.57	3364.63
TMW-21	3432.20		2/3/2025	67.56	3364.64
TMW-22	3434.17	49.37 - 69.34	12/20/2023	68.86	3365.31
TMW-22	3434.17		3/14/2024	68.85	3365.32
TMW-22	3434.17		10/23/2024	69.06	3365.11
TMW-22	3434.17		2/3/2025	69.08	3365.09
TMW-23	3424.23	48.69 - 68.66	12/20/2023	61.51	3362.72
TMW-23	3424.23		3/14/2024	61.39	3362.84
TMW-23	3424.23		10/23/2024	61.91	3362.32
TMW-23	3424.23		2/3/2025	61.89	3362.34
TMW-24	3421.74	39.33 - 59.30	12/20/2023	59.41	3362.33
TMW-24	3421.74		3/14/2024	59.28	3362.46
TMW-24	3421.74		10/23/2024	59.83	3361.91
TMW-24	3421.74		11/5/2024	59.89	3361.85
TMW-24	3421.74		2/3/2025	59.79	3361.95

AMSL = Above Mean Sea Level

BGS = Below Ground Surface

TOC = Top of Casing

Table 2
Groundwater Sample Analytical Data Summary
 East Blinebry Drinkard Unit (EBDU) #37
 Lea County, New Mexico
 Terracon Project No. KH247030

NWVQCC Standard:				*0.005	*1	*0.7	*0.62	**250	**1,000	2*	
Sample Location	Sort	Sample Collected Date	Sample Event	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Chloride (mg/L)	TDS (mg/L)	Barium (mg/L)	Sample Notes
TMW-1	1	09/23/2019	2019-09	<0.00800	<0.00200	<0.00200	<0.00200	37.4	400	--	
TMW-1	1	12/26/2019	2019-12	<0.000800	<0.00200	<0.00200	<0.00200	21.1	390	--	
TMW-1	1	09/30/2020	2020-09	<0.00200	<0.00200	<0.00200	<0.00200	22.6	390	--	
TMW-1	1	12/07/2020	2020-12	<0.00200	<0.00200	<0.00200	<0.00200	13.1	383	--	
TMW-1	1	03/11/2021	2021-03	<0.00200	<0.00200	<0.00200	<0.00400	10.9	360	--	
TMW-1	1	06/10/2021	2021-06	<0.00200	<0.00200	<0.00200	<0.00400	14.5	360	--	
TMW-1	1	10/11/2021	2021-10	<0.00200	<0.00200	<0.00200	<0.00400	17.5	358	--	
TMW-1	1	12/22/2021	2021-12	<0.00200	<0.00200	<0.00200	<0.00400	10.3	391	--	
TMW-1	1	03/01/2022	2022-03	<0.00200	<0.00200	<0.00200	<0.00400	13.2	343	--	
TMW-1	1	05/23/2022	2022-05	<0.00200	<0.00200	<0.00200	<0.00400	26.0	369	--	
TMW-1	1	08/16/2022	2022-08	<0.00200	<0.00200	<0.00200	<0.00400	50.3	404	--	
TMW-1	1	12/15/2022	2022-12	<0.00100	<0.00100	<0.00100	<0.00100	21.4	216	--	
TMW-1	1	03/14/2023	2023-03	<0.00100	<0.00100	<0.00100	<0.00100	41.9	358	--	
TMW-1	1	06/22/2023	2023-06	<0.00200	<0.00200	<0.00200	<0.00200	275	845	--	
TMW-1	1	09/06/2023	2023-09	<0.00200	<0.00200	<0.00200	<0.00400	277	830	--	
TMW-1	1	12/21/2023	2023-12	<0.00100	<0.00100	<0.00100	<0.0100	156	662	--	
TMW-1	1	03/14/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00404	136	551	--	
TMW-1	1	05/02/2024	2024-05	--	--	--	--	--	--	0.445	
TMW-1	1	11/06/2024	2024-10	--	--	--	--	128	632	0.285	Lo-Flow Sample
TMW-1	1	02/04/2025	2025-02	--	--	--	--	133	714		Lo-Flow
TMW-2	2	09/23/2019	2019-09	<0.00800	<0.00200	<0.00200	<0.00200	338	1,220	--	
TMW-2	2	12/26/2019	2019-12	<0.000800	<0.00200	<0.00200	<0.00200	307	1,170	--	
TMW-2	2	09/30/2020	2020-09	<0.00200	0.00227	<0.00200	<0.00200	314	1,040	--	
TMW-2	2	12/07/2020	2020-12	<0.00200	<0.00200	<0.00200	<0.00200	298	1,050	--	
TMW-2	2	03/11/2021	2021-03	<0.00200	<0.00200	<0.00200	<0.00400	293	1,000	--	
TMW-2	2	06/10/2021	2021-06	<0.00200	<0.00200	<0.00200	<0.00400	267	1,050	--	
TMW-2	2	10/11/2021	2021-10	<0.00200	<0.00200	<0.00200	<0.00400	263	1,030	--	
TMW-2	2	12/22/2021	2021-12	<0.00200	<0.00200	<0.00200	<0.00400	284	1,270	--	
TMW-2	2	03/01/2022	2022-03	<0.00200	<0.00200	<0.00200	<0.00400	282	1,030	--	
TMW-2	2	03/01/2022	2022-03	<0.00200	<0.00200	<0.00200	<0.00400	297	1,010	--	Duplicate Sample
TMW-2	2	05/23/2022	2022-05	<0.00200	<0.00200	<0.00400	<0.00400	256	1,070	--	
TMW-2	2	08/16/2022	2022-08	<0.00200	<0.00200	<0.00400	<0.00400	239	940	--	
TMW-2	2	12/15/2022	2022-12	<0.00100	<0.00100	<0.00100	<0.00100	195	985	--	
TMW-2	2	03/14/2023	2023-03	<0.00100	<0.00100	<0.00100	<0.00100	211	1,060	--	
TMW-2	2	06/22/2023	2023-06	<0.00200	<0.00200	<0.00200	<0.00200	248	1,120	--	
TMW-2	2	09/06/2023	2023-09	<0.00200	<0.00200	<0.00200	<0.00400	270	1,050	--	
TMW-2	2	12/21/2023	2023-12	<0.00100	<0.00100	<0.00100	<0.0100	264	1,100	--	
TMW-2	2	12/21/2023	2023-12	<0.00100	<0.00100	<0.00100	<0.0100	265	1,010	--	Duplicate Sample
TMW-2	2	03/14/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	249	992	--	
TMW-2	2	10/24/2024	2024-10	--	--	--	--	276	1,020	--	Hydrasleeve
TMW-2	2	02/05/2025	2025-02	--	--	--	--	258	1,250	--	Lo-Flow

Table 2
Groundwater Analytical Summary (continued)

NW/QCC Standard:				*0.005	*1	*0.7	*0.62	**250	**1,000	2*	
Sample Location	Sort	Sample Collected Date	Sample Event	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Chloride (mg/L)	TDS (mg/L)	Barium (mg/L)	Sample Notes
TMW-3	3	09/23/2019	2019-09	--	--	--	--	--	--	--	
TMW-3	3	12/26/2019	2019-12	--	--	--	--	--	--	--	
TMW-3	3	09/30/2020	2020-09	<0.00200	0.00322	<0.00200	0.00448	212	891	--	
TMW-3	3	12/07/2020	2020-12	<0.00200	<0.00200	<0.00200	<0.00200	214	948	--	
TMW-3	3	03/11/2021	2021-03	<0.00200	<0.00200	<0.00200	<0.00400	213	900	--	
TMW-3	3	06/10/2021	2021-06	<0.00200	<0.00200	<0.00200	<0.00400	180	934	--	
TMW-3	3	10/11/2021	2021-10	<0.00200	<0.00200	<0.00200	<0.00400	192	967	--	
TMW-3	3	12/22/2021	2021-12	<0.00200	<0.00200	<0.00200	<0.00400	211	949	--	
TMW-3	3	03/01/2022	2022-03	<0.00200	<0.00200	<0.00200	<0.00400	233	944	--	
TMW-3	3	05/23/2022	2022-05	<0.00200	<0.00200	<0.00200	<0.00400	202	955	--	
TMW-3	3	08/16/2022	2022-08	<0.00200	<0.00200	<0.00200	<0.00400	245	1,100	--	
TMW-3	3	12/15/2022	2022-12	<0.00100	<0.00100	<0.00100	<0.00100	175	808	--	
TMW-3	3	03/14/2023	2023-03	<0.00100	<0.00100	<0.00100	<0.00100	233	940	--	
TMW-3	3	06/22/2023	2023-06	<0.00200	<0.00200	<0.00200	<0.00200	229	1,020	--	
TMW-3	3	09/06/2023	2023-09	<0.00200	<0.00200	<0.00200	<0.00400	240	1,010	--	
TMW-3	3	12/21/2023	2023-12	<0.00100	<0.00100	<0.00100	<0.0100	242	1,020	--	
TMW-3	3	03/14/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	234	959		
TMW-3	3	03/14/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	328	986	--	Duplicate Sample
TMW-3	3	05/02/2024	2024-05	--	--	--	--	--	--	0.0299	
TMW-3	3	11/06/2024	2024-10	--	--	--	--	183	889	0.952	Hydrasleeve
TMW-3	3	02/06/2025	2025-02	--	--	--	--	254	1,170	--	Lo-Flow
TMW-3	3	02/06/2025	2024-10	--	--	--	--	213	1,090	--	HydraSleeve (Duplicate)
TMW-4	4	09/23/2019	2019-09	--	--	--	--	--	--	--	
TMW-4	4	12/26/2019	2019-12	--	--	--	--	--	--	--	
TMW-4	4	09/30/2020	2020-09	<0.00200	0.00314	<0.00200	<0.00200	1,020	2,040	--	
TMW-4	4	12/07/2020	2020-12	<0.00200	<0.00200	<0.00200	<0.00200	987	2,300	--	
TMW-4	4	03/11/2021	2021-03	<0.00200	<0.00200	<0.00200	<0.00400	834	1,960	--	
TMW-4	4	06/11/2021	2021-06	<0.00200	<0.00200	<0.00200	<0.00400	745	1,990	--	
TMW-4	4	10/11/2021	2021-10	<0.00200	<0.00200	<0.00200	<0.00400	689	1,990	--	
TMW-4	4	12/22/2021	2021-12	<0.00200	<0.00200	<0.00200	<0.00400	735	2,180	--	
TMW-4	4	03/01/2022	2022-03	<0.00200	<0.00200	<0.00200	<0.00400	1,610	2,080	--	
TMW-4	4	03/29/2022	2022-03	<0.00200	<0.00200	<0.00200	0.00700	547	1,930	--	Duplicate Sample
TMW-4	4	05/23/2022	2022-05	<0.00200	<0.00200	<0.00200	<0.00400	522	1,930	--	
TMW-4	4	08/16/2022	2022-08	<0.00200	<0.00200	<0.00200	<0.00400	684	2,000	--	
TMW-4	4	12/15/2022	2022-12	<0.00100	<0.00100	<0.00100	<0.00100	486	1,940	--	
TMW-4	4	03/14/2023	2023-03	<0.00100	<0.00100	<0.00100	<0.00100	703	1,850	--	
TMW-4	4	06/22/2023	2023-06	<0.00200	<0.00200	<0.00200	<0.00200	673	1,900	--	
TMW-4	4	09/06/2023	2023-09	<0.00200	<0.00200	<0.00200	<0.00400	625	1,810	--	
TMW-4	4	12/20/2023	2023-12	<0.00200	<0.00200	<0.00200	<0.00400	598	1,750	--	
TMW-4	4	03/14/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	580	1,750	--	
TMW-4	4	10/24/2024	2024-10	--	--	--	--	612	1,760	--	Hydrasleeve
TMW-4	4	02/06/2025	2025-02	--	--	--	--	569	2,100	--	Lo-Flow
TMW-5	5	12/15/2022	2022-12	<0.00100	<0.00100	<0.00100	<0.00100	1,170	4,950	--	
TWM-5	5	12/15/2022	2022-12	<0.00100	<0.00100	<0.00100	<0.00100	1,410	4,520	--	Duplicate Sample
TMW-5	5	03/14/2023	2023-03	<0.00100	<0.00100	<0.00100	<0.00100	2,890	5,200	--	
TMW-5	5	06/22/2023	2023-06	<0.00200	<0.00200	<0.00200	<0.00200	2,790	5,380	--	
TMW-5	5	09/06/2023	2023-09	<0.00200	<0.00200	<0.00200	<0.00400	2,700	4,590	--	
TWM-5	5	09/06/2023	2023-09	<0.00200	<0.00200	<0.00200	<0.00400	3,030	5,850	--	Duplicate Sample
TMW-5	5	12/20/2023	2023-12	<0.00200	<0.00200	<0.00200	<0.00400	2,320	4,250	--	
TWM-5	5	12/21/2023	2023-12	<0.00100	<0.00100	<0.00100	<0.0100	265	1,010	--	Duplicate Sample
TMW-5	5	03/14/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	2,980	5,360	--	
TMW-5	5	03/14/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	328	986	--	Duplicate Sample
TMW-5	5	03/15/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	1,330	2,530	--	Duplicate Sample
TMW-5	5	10/24/2024	2024-10	--	--	--	--	3,990	10,200	--	Hydrasleeve
TMW-5	5	02/06/2025	2025-02	--	--	--	--	3,010	7,580	--	Lo-Flow

Table 2
Groundwater Analytical Summary (continued)

NW/QCC Standard:				*0.005	*1	*0.7	*0.62	**250	**1,000	2*	
Sample Location	Sort	Sample Collected Date	Sample Event	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Chloride (mg/L)	TDS (mg/L)	Barium (mg/L)	Sample Notes
TMW-6	6	12/15/2022	2022-12	<0.00100	<0.00100	<0.00100	<0.00100	941	3,160	--	
TMW-6	6	03/14/2023	2023-03	<0.00100	<0.00100	<0.00100	<0.00100	2,270	3,200	--	
TMW-6	6	06/22/2023	2023-06	<0.00200	<0.00200	<0.00200	<0.00200	1,550	3,260	--	
TMW-6	6	09/06/2023	2023-09	<0.00200	<0.00200	<0.00200	<0.00400	1,630	2,820	--	
TMW-6	6	12/20/2023	2023-12	<0.00200	<0.00200	<0.00200	<0.00400	1,570	3,070	--	
TMW-6	6	03/14/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	1,500	3,280	--	
TMW-6	6	10/24/2024	2024-10	--	--	--	--	1,330	11,700	--	Hydrasleeve
TMW-6	6	02/06/2025	2025-02	--	--	--	--	1,520	4,220	--	Lo-Flow
TMW-7	7	06/22/2023	2023-06	<0.00200	<0.00200	<0.00200	<0.00200	1,770	3,980	--	
TMW-7	7	09/06/2023	2023-09	<0.00200	<0.00200	<0.00200	<0.00400	1,870	3,880	--	
TMW-7	7	12/20/2023	2023-12	<0.00200	<0.00200	<0.00200	<0.00400	1,770	3,720	--	
TMW-7	7	03/14/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	1,740	3,690	--	
TMW-7	7	10/24/2024	2024-10	--	--	--	--	1,100	3,020	--	Hydrasleeve
TMW-7	7	02/06/2025	2025-02	--	--	--	--	1,030	3,110	--	Lo-Flow
TMW-8	8	06/22/2023	2023-06	<0.00200	<0.00200	<0.00200	<0.00200	974	2,410	--	
TMW-8	8	09/06/2023	2023-09	<0.00200	<0.00200	<0.00200	<0.00400	1,130	2,470	--	
TMW-8	8	12/20/2023	2023-12	<0.00200	<0.00200	<0.00200	<0.00200	709	1,840	--	
TMW-8	8	03/14/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	655	1,830	--	
TMW-8	8	10/24/2024	2024-10	--	--	--	--	570	1,680	--	Hydrasleeve
TMW-8	8	02/05/2025	2025-02	--	--	--	--	457	1,890	--	Lo-Flow
TMW-9	9	06/22/2023	2023-06	<0.00200	<0.00200	<0.00200	<0.00200	18	373	--	
TMW-9	9	09/06/2023	2023-09	<0.00200	<0.00200	<0.00200	<0.00400	41.8	390	--	
TMW-9	9	12/21/2023	2023-12	<0.00100	<0.00100	<0.00100	<0.0100	37.3	404	--	
TMW-9	9	03/12/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	29.3	373	--	
TMW-9	9	10/24/2024	2024-10	--	--	--	--	65.5	493	--	Hydrasleeve
TMW-9	9	02/04/2025	2025-02	--	--	--	--	64.1	536	--	Lo-Flow
TMW-10	10	06/22/2023	2023-06	<0.00200	<0.00200	<0.00200	<0.00200	9.89	525	--	
TMW-10	10	09/06/2023	2023-09	<0.00200	<0.00200	<0.00200	<0.00400	67.0	514	--	
TMW-10	10	12/21/2023	2023-12	<0.00100	<0.00100	<0.00100	<0.0100	114	666	--	
TMW-10	10	03/14/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	17.0	405	--	
TMW-10	10	10/24/2024	2024-10	--	--	--	--	208	1,030	--	Hydrasleeve
TMW-10	10	02/06/2025	2025-02	--	--	--	--	108	688	--	Lo-Flow
TMW-11	11	12/21/2023	2023-12	<0.00100	<0.00100	<0.00100	<0.0100	350	1,190	--	
TMW-11	11	03/14/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	318	1,090	--	
TMW-11	11	10/24/2024	2024-10	--	--	--	--	423	1,310	--	Hydrasleeve
TMW-11	11	02/05/2025	2025-02	--	--	--	--	347	1,550	--	Lo-Flow
TMW-12	12	12/21/2023	2023-12	<0.00100	<0.00100	<0.00100	<0.0100	463	1,520	--	
TMW-12	12	03/14/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	448	1,390	--	
TMW-12	12	10/24/2024	2024-10	--	--	--	--	458	1,520	--	Hydrasleeve
TMW-12	12	02/05/2025	2025-02	--	--	--	--	443	1,800	--	Lo-Flow
TMW-13	13	12/20/2023	2023-12	<0.00200	<0.00200	<0.00200	<0.00400	1,730	3,680	--	
TMW-13	13	03/14/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	1,690	3,480	--	
TMW-13	13	10/24/2024	2024-10	--	--	--	--	1,580	3,650	--	Hydrasleeve
TMW-13	13	02/06/2025	2025-02	--	--	--	--	1,480	4,210	--	Lo-Flow
TMW-14	14	12/20/2023	2023-12	<0.00200	<0.00200	<0.00200	<0.00400	2,500	5,140	--	
TMW-14	14	03/15/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	1,810	2,820	--	
TMW-14	14	03/15/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	1,330	2,530	--	Duplicate Sample
TMW-14	14	10/24/2024	2024-10	--	--	--	--	7,790	14,500	--	Hydrasleeve
TMW-14	14	02/06/2025	2025-02	--	--	--	--	2,410	6,240	--	Lo-Flow
TMW-15	15	12/20/2023	2023-12	<0.00200	<0.00200	<0.00200	<0.00400	2,120	3,870	--	
TMW-15	15	03/15/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	2,160	3,400	--	
TMW-15	15	10/24/2024	2024-10	--	--	--	--	7,160	14,400	--	Hydrasleeve
TMW-15	15	02/06/2025	2025-02	--	--	--	--	1,060	3,010	--	Lo-Flow
TMW-16	16	12/20/2023	2023-12	<0.00200	<0.00200	<0.00200	<0.00400	85.5	495	--	
TMW-16	16	03/15/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	43.0	380	--	
TMW-16	16	10/24/2024	2024-10	--	--	--	--	171	919	--	Hydrasleeve
TMW-16	16	02/04/2025	2025-02	--	--	--	--	46.9	507	--	Lo-Flow

Table 2
Groundwater Analytical Summary (continued)

NW/QCC Standard:				*0.005	*1	*0.7	*0.62	**250	**1,000	2*	
Sample Location	Sort	Sample Collected Date	Sample Event	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Chloride (mg/L)	TDS (mg/L)	Barium (mg/L)	Sample Notes
TMW-17	17	12/20/2023	2023-12	<0.00200	<0.00200	<0.00200	<0.00400	5,850	10,300	--	
TMW-17	17	12/20/2023	2023-12	<0.00200	<0.00200	<0.00200	<0.00400	5,830	10,300	--	Duplicate Sample
TMW-17	17	03/15/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	5,680	8,930	--	
TMW-17	17	11/05/2024	2024-10	<0.000460	<0.000475	<0.000385	<0.00124	14,900	24,900	--	Lo-Flow Sample
TMW-17	17	02/05/2025	2025-02	<0.000460	<0.000475	<0.000385	<0.00124	7,120	13,300	0.259	Lo-Flow Sample
TMW-18	18	12/20/2023	2023-12	<0.00200	<0.00200	<0.00200	<0.00400	2,050	6,430	--	
TMW-18	18	03/15/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	908	1,650	--	
TMW-18	18	10/24/2024	2024-10	--	--	--	--	7,820	15,200	--	Hydrasleeve
TMW-18	18	02/06/2025	2025-02	--	--	--	--	1,390	3,960	--	Lo-Flow
TMW-19	19	12/20/2023	2023-12	<0.00200	<0.00200	<0.00200	<0.00400	927	1,860	--	
TMW-19	19	03/15/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	553	1,070	--	
TMW-19	19	11/05/2024	2024-10	<0.00200	<0.00200	<0.00200	<0.00400	907	2,390	--	Lo-Flow Sample
TMW-19	19	02/04/2025	2025-02	--	--	--	--	792	2,330	--	Lo-Flow
TMW-20	20	12/20/2023	2023-12	<0.00200	<0.00200	<0.00200	<0.00400	287	927	--	
TMW-20	20	03/15/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	385	937	--	
TMW-20	20	10/24/2024	2024-10	--	--	--	--	312	1,070	--	Hydrasleeve
TMW-20	20	02/04/2025	2025-02	--	--	--	--	295	1,140	--	Lo-Flow
TMW-21	21	12/20/2023	2023-12	<0.00200	<0.00200	<0.00200	<0.00400	262	885	--	
TMW-21	21	03/15/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	310	902	--	
TMW-21	21	05/02/2024	2024-05	--	--	--	--	--	--	0.0471	
TMW-21	21	11/06/2024	2024-10	--	--	--	--	284	1,040	0.048	Lo-Flow
TMW-21	21	02/04/2025	2025-02	--	--	--	--	268	1,070	--	Lo-Flow
TMW-22	22	12/20/2023	2023-12	<0.00200	<0.00200	<0.00200	<0.00400	270	939	--	
TMW-22	22	03/15/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	342	918	--	
TMW-22	22	10/24/2024	2024-10	--	--	--	--	289	1,080	--	Hydrasleeve
TMW-22	22	02/04/2025	2025-02	--	--	--	--	272	1,090	--	Lo-Flow
TMW-23	23	12/20/2023	2023-12	<0.00200	<0.00200	<0.00200	<0.00400	895	1,980	--	
TMW-23	23	03/15/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	1,020	2,020	--	
TMW-23	23	10/24/2024	2024-10	--	--	--	--	1,010	3,270	--	Hydrasleeve
TMW-23	23	02/04/2025	2025-02	--	--	--	--	993	3,280	--	Lo-Flow
TMW-24	24	12/20/2023	2023-12	<0.00200	<0.00200	<0.00200	<0.00400	271	1,050	--	
TMW-24	24	03/15/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	330	1,060	--	
TMW-24	24	10/28/2024	2024-10	--	--	--	--	330	1,060	--	Lo-Flow Sample
TMW-24	24	11/05/2024	2024-10	--	--	--	--	293	1,110	--	Lo-Flow Sample (Dup)
TMW-24	24	02/04/2025	2025-02	--	--	--	--	272	1,290	--	Lo-Flow

Table 2
Groundwater Analytical Summary (continued)

NMWQCC Standard:				*0.005	*1	*0.7	*0.62	**250	**1,000	2*	
Sample Location	Sort	Sample Collected Date	Sample Event	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Chloride (mg/L)	TDS (mg/L)	Barium (mg/L)	Sample Notes
Windmill	25	08/01/2019	2019-08	<0.001	<0.001	<0.001	<0.003	232	732	--	
Windmill	25	09/23/2019	2019-09	--	--	--	--	--	--	--	
Windmill	25	12/26/2019	2019-12	<0.000800	<0.00200	<0.00200	<0.00200	259	688	--	
Windmill	25	09/30/2020	2020-09	<0.00200	<0.00200	<0.00200	<0.00200	274	730	--	
Windmill	25	09/30/2020	2020-09	<0.00200	<0.00200	<0.00200	<0.00200	276	794	--	Duplicate Sample
Windmill	25	12/07/2020	2020-12	<0.00200	<0.00200	<0.00200	<0.00200	287	930	--	
Windmill	25	12/07/2020	2020-12	<0.00200	<0.00200	<0.00200	<0.00200	278	908	--	Duplicate Sample
Windmill	25	03/11/2021	2021-03	<0.00200	<0.00200	<0.00200	<0.00400	252	745	--	
Windmill	25	03/11/2021	2021-03	<0.00200	<0.00200	<0.00200	<0.00400	259	798	--	Duplicate Sample
Windmill	25	06/10/2021	2021-06	<0.00200	<0.00200	<0.00200	<0.00400	255	781	--	
Windmill	25	06/10/2021	2021-06	<0.00200	<0.00200	<0.00200	<0.00400	256	781	--	Duplicate Sample
Windmill	25	10/11/2021	2021-10	<0.00200	<0.00200	<0.00200	<0.00400	251	800	--	
Windmill	25	10/11/2021	2021-10	<0.00200	<0.00200	<0.00200	<0.00400	250	830	--	Duplicate Sample
Windmill	25	12/22/2021	2021-12	<0.00200	<0.00200	<0.00200	<0.00400	246	751	--	
Windmill	25	12/22/2021	2021-12	<0.00200	<0.00200	<0.00200	<0.00400	243	796	--	Duplicate Sample
Windmill	25	03/03/2022	2022-03	<0.00200	<0.00200	<0.00200	<0.00400	256	828	--	
Windmill	25	03/03/2022	2022-03	<0.00200	<0.00200	<0.00200	<0.00400	491	787	--	Duplicate Sample
Windmill	25	05/23/2022	2022-05	<0.00200	<0.00200	<0.00200	<0.00400	222	738	--	
Windmill	25	05/23/2022	2022-05	<0.00200	<0.00200	<0.00200	<0.00400	215	729	--	Duplicate Sample
Windmill	25	08/16/2022	2022-08	<0.00200	<0.00200	<0.00200	<0.00400	256	1,190	--	
Windmill	25	08/16/2022	2022-08	<0.00200	<0.00200	<0.00200	<0.00400	283	1,120	--	Duplicate Sample
Windmill	25	12/15/2022	2022-12	<0.00100	<0.00100	<0.00100	<0.00100	198	508	--	
Windmill	25	03/14/2023	2023-03	<0.00100	<0.00100	<0.00100	<0.00100	401	1,130	--	
Windmill	25	03/14/2023	2023-03	<0.00100	<0.00100	<0.00100	<0.00100	413	1,130	--	Duplicate Sample
Windmill	25	06/22/2023	2023-06	<0.00200	<0.00200	<0.00200	<0.00200	276	852	--	
Windmill	25	06/22/2023	2023-06	<0.00200	<0.00200	<0.00200	<0.00200	273	855	--	Duplicate Sample
Windmill	25	09/07/2023	2023-09	<0.00200	<0.00200	<0.00400	<0.00400	350	981	--	
Windmill	25	12/20/2023	2023-12	<0.00200	<0.00200	<0.00200	<0.00400	409	1,010	--	
Windmill	25	03/14/2024	2024-03	<0.00200	<0.00200	<0.00200	<0.00400	471	1,080	--	
Windmill	25	04/03/2024	2024-03	--	--	--	--	--	--	2.18	
Windmill	25	05/02/2024	2024-05	--	--	--	--	--	--	0.220	
Windmill	25	10/28/2024	2024-10	--	--	--	--	540	2,030	--	
Windmill	25	02/05/2025	2025-02	<0.000460	<0.000475	<0.000385	<0.00124	486	1,900	0.241	B
Windmill	25	02/05/2025	2025-02	--	--	--	--	523	--	--	Duplicate Sample (Dup 2)

Notes:

mg/l = milligrams per liter

<: concentration is less than analytical method reporting limit (RL).

*: NMWQCC Human Health Standard

**: NMWQCC Domestic Water Quality Standard

Bold represents results above laboratory detection limits**Highlighted and Bold represents results that exceed the NMWQCC applicable standard**

Table 3
Windmill Laboratory Analytical Data Summary
 East Blinberry Drinkard Unit (EBDU) #37
 Lea County, New Mexico
 Terracon Project No. KH247030

20.6.2.3103 NMAC - Human Health Standards								
A.	Parameter	Numerical Standard (mg/L)	Windmill Well				TMW-17	
			4/3/2024	5/2/2024	10/28/2024	2/5/2025	11/5/2024	2/5/2025**
(a)	Antimony	0.006	<0.00400	--	--	<0.00105		<0.00105
(b)	Arsenic	0.01	<0.00400	--	--	0.00289 J	0.00212 J	0.00738
(c)	Barium	2.0	2.18	*0.220	--	0.241	0.20400	0.259
(d)	Beryllium	0.004	<0.00200	--	--	<0.000375	--	<0.000375
(e)	Cadmium	0.005	<0.00200	--	--	<0.000258	<0.000240	<0.000258
(f)	Chromium	0.05	<0.00400	--	--	<0.000890	0.00122 J	0.00325 J
(g)	Cyanide	0.2	<0.00500	--	--	<0.00198	0.686	<0.00198
(h)	Fluoride	1.6	<1.00	--	--	0.491 J	<1.0	1.11 J
(i)	Lead	0.015	<0.00200	--	--	<0.000369	<0.00367	0.000763 J
(j)	Mercury (Total)	0.002	<0.000200	--	--	0.0000940 J	0.000361	0.000466
(k)	Nitrate	10.0	2.78	--	--	2.51	8.21	2.20
(l)	Nitrite	1.0	<0.100	--	--	<0.0699	<0.699	<0.699
(m)	Selenium	0.05	<0.00200	--	--	0.00517	0.0227	0.0606
(n)	Silver	0.05	<0.00200	--	--	<0.000351	<0.000390	<0.000351
(o)	Thallium	0.002	<0.00200	--	--	<0.000215	<0.00185	<0.000215
(p)	Uranium	0.03	0.00315	--	--	0.0031	0.0131	0.00595
(q)	Radioactivity (combined R226 and R228)	5.0	0.945	--	--	0.97^u	0.207 ^u	0.95 ^u
(r)	Benzene	0.005	<0.00100	--	--	<0.000460	<0.000460	<0.000460
(s)	Polychlorinated biphenyls (PCB)	0.0005	<0.000262	--	--	NC*	<0.0000469	NC*
(t)	Toluene	1.0	<0.00100	--	--	<0.000475	<0.000475	<0.000475
(u)	Carbon Tetrachloride	0.005	<0.00500	--	--	<0.000896	<0.000896	<0.000896
(v)	1,2-dichloroethane (EDC)	0.005	<0.00100	--	--	<0.000372	<0.000372	<0.000372
(w)	1,1-dichloroethylene	0.007	<0.00100	--	--	<0.000738	<0.000635	<0.000738
(x)	Tetrachloroethylene (PCE)	0.005	<0.00100	--	--	<0.000655	<0.000655	<0.000655
(y)	Trichloroethylene (TCE)	0.005	<0.00500	--	--	<0.00150	<0.00150	<0.00150
(z)	Ethylbenzene	0.70	<0.00100	--	--	<0.000385	<0.000385	<0.000385
(aa)	Xylenes (Total)	0.62	<0.0100	--	--	<0.00124	<0.00124	<0.00124
(bb)	Methylene Chloride	0.005	<0.00500	--	--	<0.00173	<0.00173	0.00263 J
(cc)	Chloroform	0.1	<0.00100	--	--	<0.000464	<0.000464	<0.000464
(dd)	1,1-Dichloroethane	0.025	<0.00100	--	--	<0.000635	<0.000635	<0.000635
(ee)	Ethylene Dibromide (EDB)	0.00005	<0.00500	--	--	<0.000999	--	<0.000999
(ff)	1,1,1-trichloroethane	0.20	<0.00100	--	--	<0.000585	<0.00175	<0.000585
(gg)	1,1,2-trichloroethane	0.005	<0.00100	--	--	<0.000411	<0.000411	<0.000411
(hh)	1,1,2,2-tetrachloroethane	0.01	<0.00100	--	--	<0.000470	<0.000470	<0.000470
(ii)	vinyl chloride	0.002	<0.002	--	--	<0.000428	<0.000428	<0.000428
(jj)	PAHs: total naphthalene plus monomethylnaphthalenes	0.03	<0.571	--	--	<0.0940	<0.00135	<0.0944
(kk)	benzo-a-pyrene	0.0002	<0.571	--	--	<0.00996	--	<0.0100
(ll)	cis-1,2-dichloroethene	0.07	<0.00100	--	--	<0.000457	<0.000457	<0.000457
(mm)	trans-1,2-dichloroethene	0.1	<0.00100	--	--	<0.000368	<0.000368	<0.000368
(nn)	1,2-dichloropropane (PDC)	0.005	<0.00500	--	--	<0.000556	<0.000556	<0.000556
(oo)	Styrene	0.1	<0.00100	--	--	<0.000619	<0.000619	<0.000619
(pp)	1,2-dichlorobenzene	0.60	<0.00100	--	--	<0.000429	<0.000429	<0.000429
(qq)	1,4-dichlorobenzene	0.075	<0.00100	--	--	<0.000449	<0.000449	<0.000449
(rr)	1,2,4-trichlorobenzene	0.07	<0.00500	--	--	<0.00175	<0.00175	<0.00175
(ss)	pentachlorophenol	0.001	<1.14	--	--	<1.03	--	<1.04
(tt)	atrazine	0.003	<0.500	--	--	<0.207	--	<0.208

Table 3
Windmill Laboratory Analytical Summary (continued)

20.6.2.3103 NMAC - Standards for Domestic Water Supply								
B.	Parameter	Numerical Standard (mg/L)	Windmill Well				TMW-17	
			4/3/2024	5/2/2024	10/28/2024	2/5/2025	11/5/2024	2/5/2025
(1)	Chloride	250.0	440	--	540	486	14,900	7,120
(2)	Copper	1.0	0.00509	--		0.00451	<0.00100	0.0134
(3)	Iron	1.0	<0.100	--	--	<0.00626	0.0418	1.36
(4)	Manganese	0.2	<0.00200	--	--	<0.000525	0.00473	0.0268
(5)	Phenols	0.005	<0.0100	--	--	<0.00580	0.247	<0.580
(6)	Sulfate	600.0	56.5	--	--	53.4	715	256
(7)	Total Dissolved Solids (TDS)	1,000.0	1,000	--	2,030	1,900	24,900	13,300
(8)	Zinc	10.0	0.00465	--	--	0.00534	<0.00274	0.00592
(9)	pH	6 - 9	7.3	--	--	7.3	7.0	7.0
(10)	Methy tertiary-butyl ether (MTBE)	0.1	<0.00500	--	--	<0.00139	<0.00139	<0.00139
20.6.2.3103 NMAC - Standards for Irrigation Use								
C.	Parameter	Numerical Standard (mg/L)	Windmill Well				TMW-17	
			4/3/2024	5/2/2024	10/28/2024	2/5/2025	11/5/2024	2/5/2025
(1)	Aluminum	5.0	<0.0200	--	--	<0.00301	0.0813	1.90
(2)	Boron	0.75	0.154	--	--	0.155	1.84	0.527
(3)	Cobalt	0.05	<0.00200	--	--	0.000305 J	<0.000355	0.0025
(4)	Molybdenum	1.0	<0.00200	--	--	0.000605 J	0.000686 J	0.00108 J
(5)	Nickel	0.2	<0.00200	--	--	0.00256	0.00114 J	0.0137

Notes:

Analysis performed by Eurofins Xenco Laboratories, Midland, Texas, by EPA SW-846 Methods.

All values reported in milligrams per liter (mg/L) equivalent to parts per million (ppm)

-- = Not analyzed

< Indicates analyte concentration is less than the laboratories standard detection limit (SDL)

NC = Not Calculated

* Analysis included seven individual PCBs, all below SDL

** Reported as sample TMW-17-LF

u - Indicates one or more radionuclides were reported below detection limits. Value in table was calculated using the Minimum Detectable Concentration (MDC) as the result.

Bold indicates analyte concentration exceeds the laboratory SDL but is below the regulatory limit

Highlighted and Bold represents results that exceed the NMWQCC applicable standard

EXHIBITS

Exhibit 1 – Topographic Map

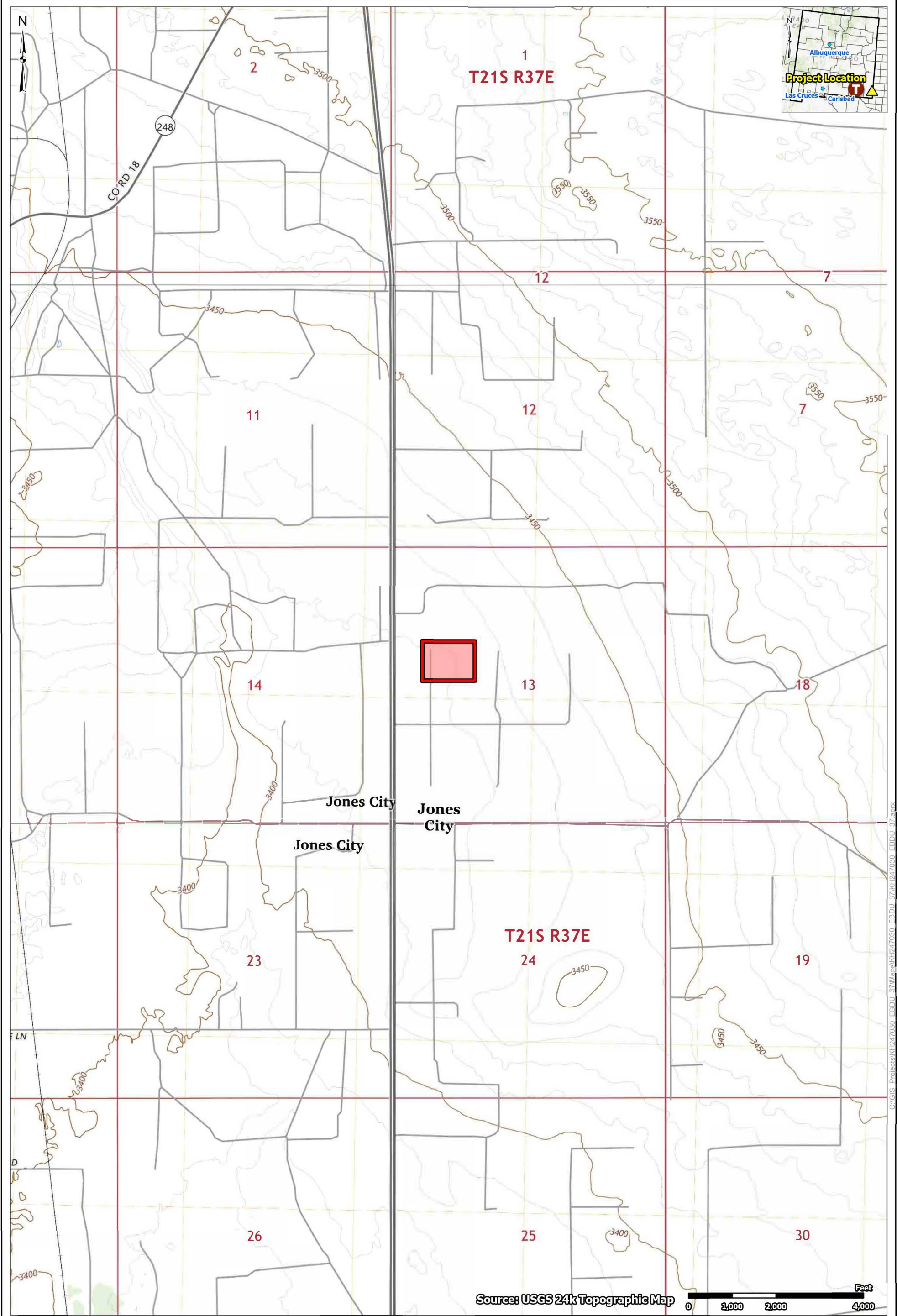
Exhibit 2 – Monitoring Well Location Map

Exhibit 3 – Groundwater Gradient Map February 2025

Exhibit 4 – Well Hydrographs

Exhibit 5 – Chloride Concentration Map February 2025

Exhibit 6 – TDS Concentration Map February 2025



 Site Location

Project No.:
KH247030
Date:
Dec 23 2024
Drawn By:
JWL
Reviewed By:
JRG



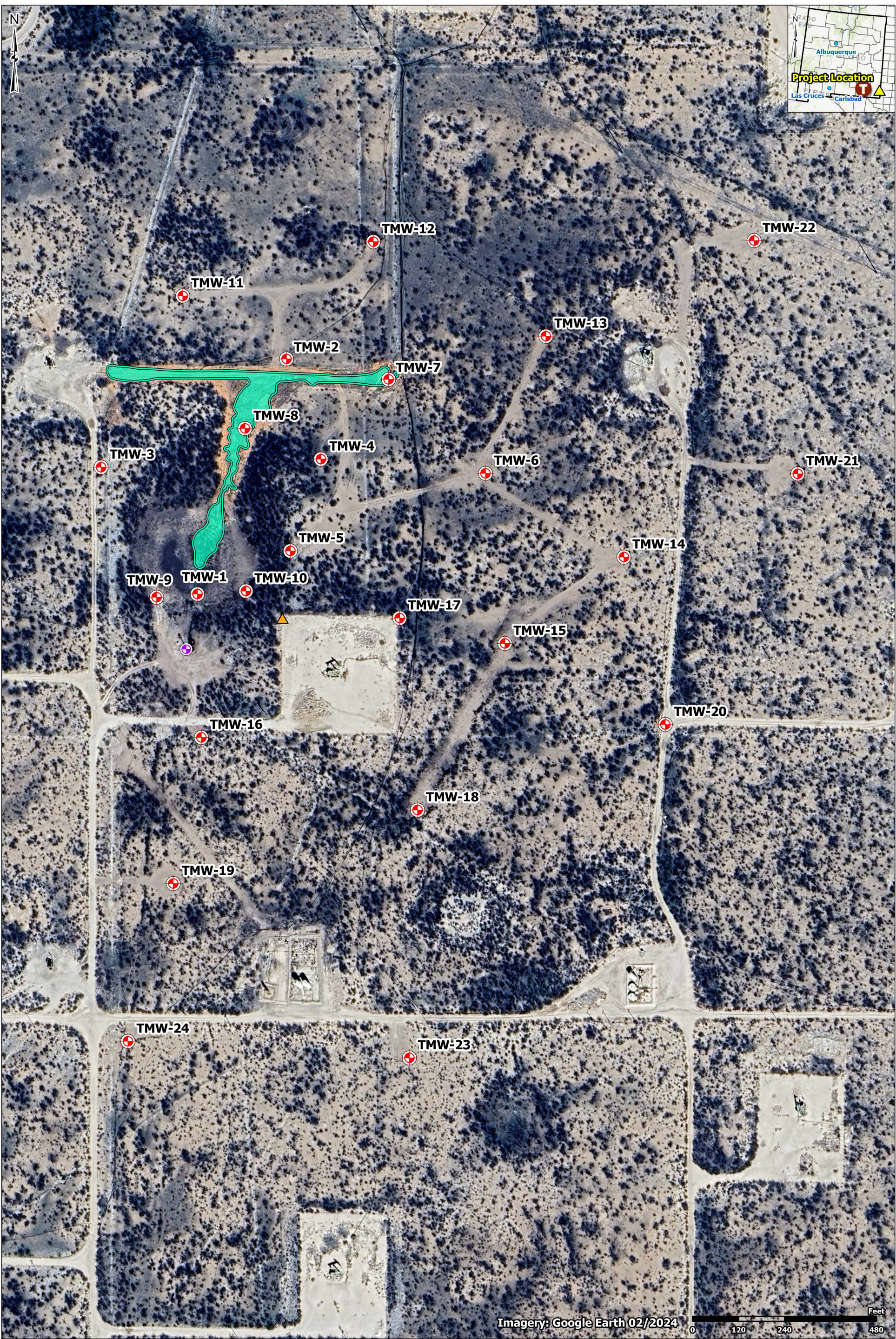
4526 W Pierce St
Carlsbad, NM
PH. 806-300-0140 terracon.com

Topographic Map

EBDU 37
32.4807053, -103.123085
Apache Corporation
Eunice, Lea County, New Mexico

Exhibit

1



- Inferred Release
- Existing Monitoring Well
- Static Control GPS
- Windmill

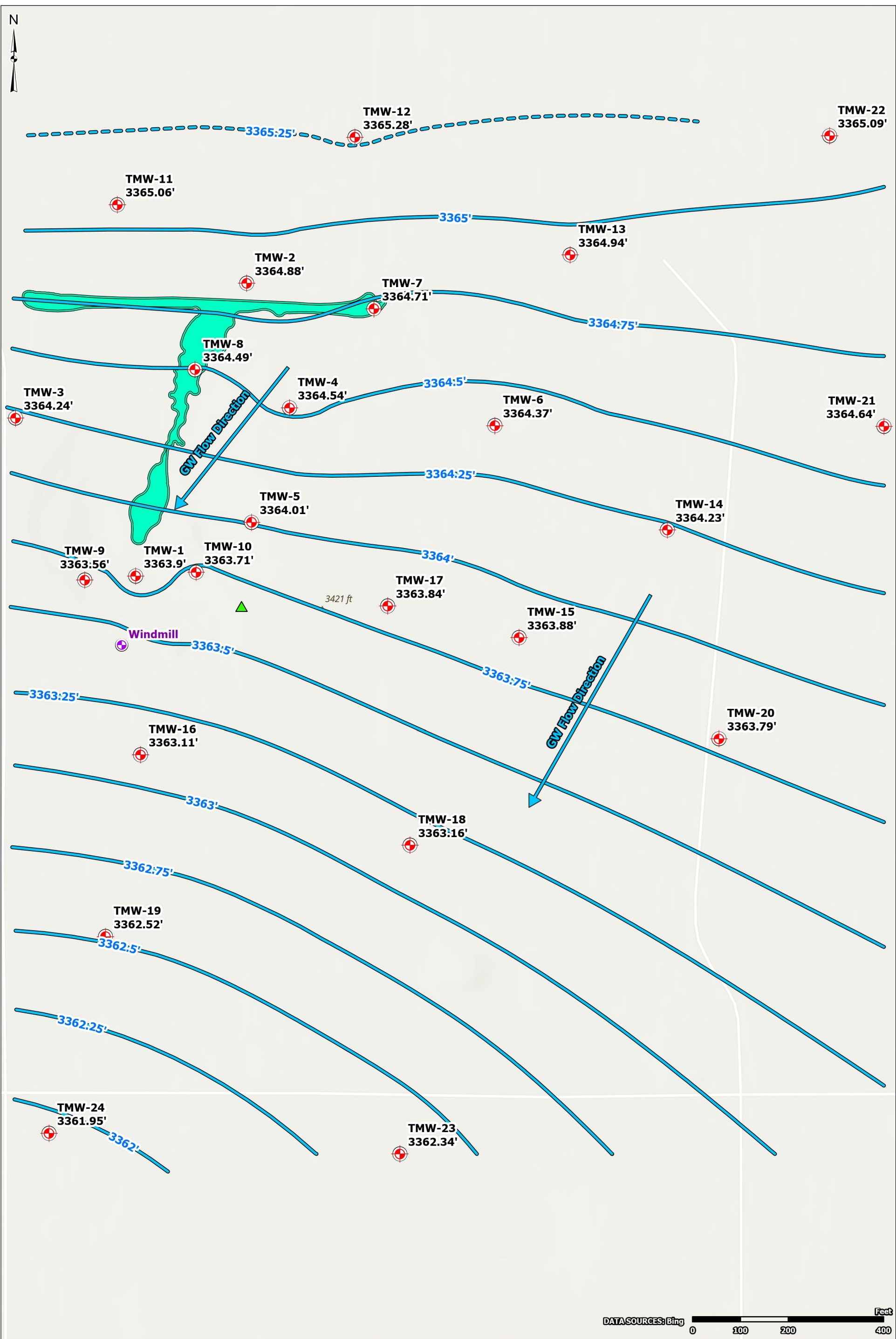
Project No.:	KH247030
Date:	Dec 19 2024
Drawn By:	JWL
Reviewed By:	JRG

4526 W Pierce St
Carlsbad, NM

PH. 806-300-0140 terracon.com

Monitoring Well Location Map
EBDU 37 32.4807053, -103.123085 Apache Corporation Eunice, Lea County, New Mexico

Exhibit
2



- Inferred Release
- Groundwater Contour
- Groundwater Contour (Inferred)
- Existing Monitoring Well
- Windmill
- Static Control GPS

Project No.: KH247030
Date: Apr 10 2025
Drawn By: JWL
Reviewed By: JRG



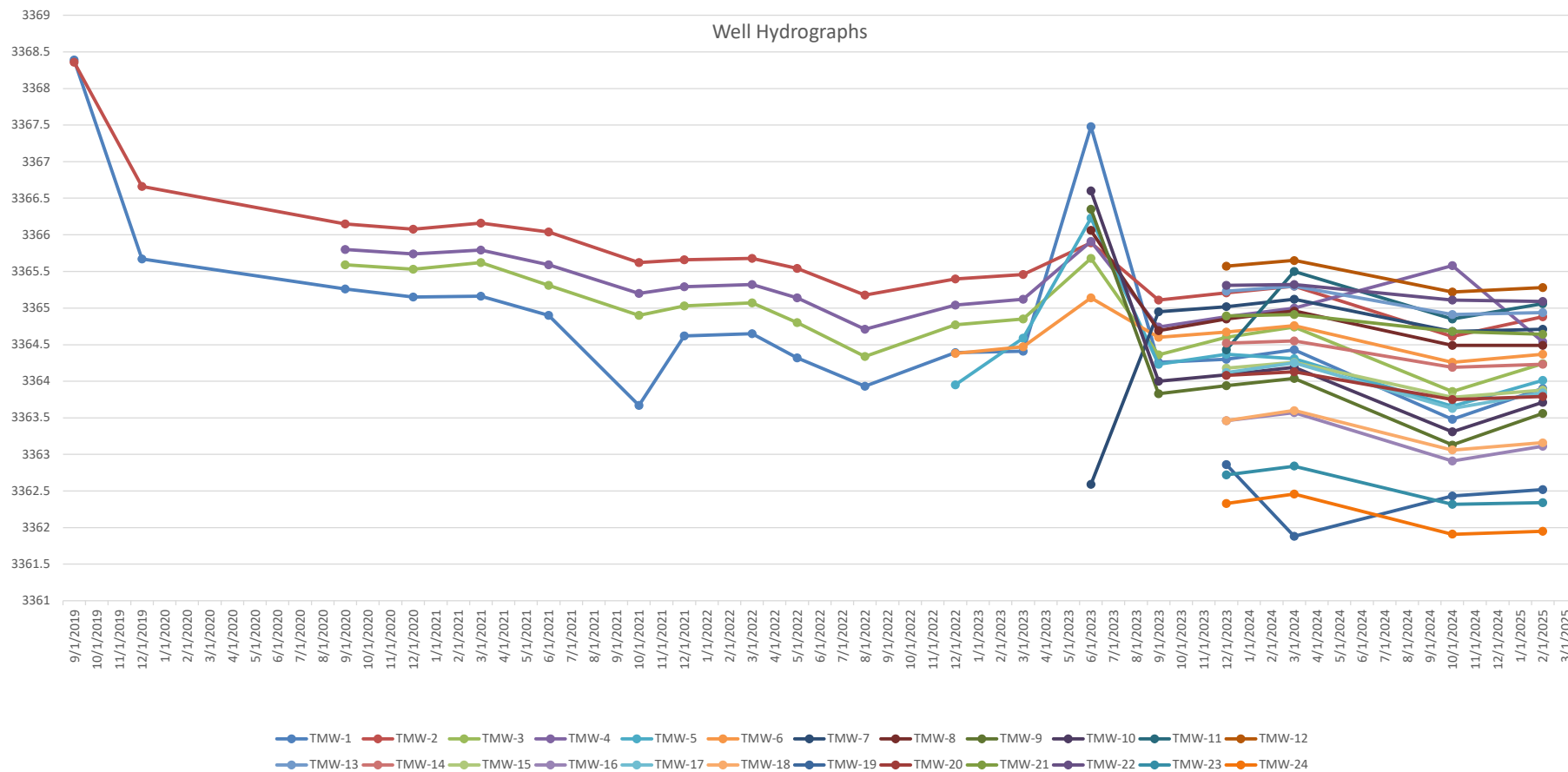
terracon.com

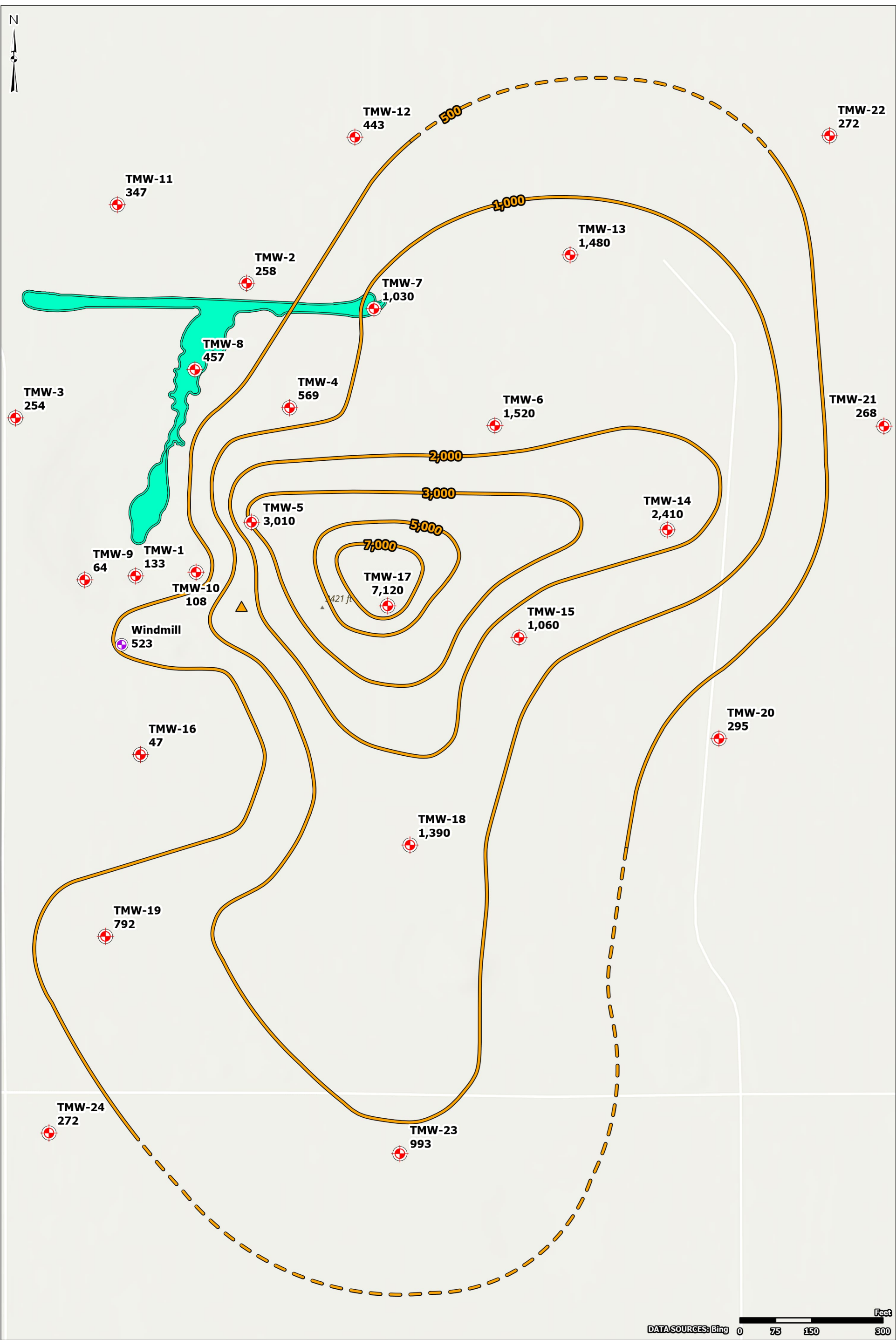
Groundwater Gradient Map - 02/2025

EBDU 37
32.4807053, -103.123085
Apache Corporation
Eunice, Lea County, New Mexico

Exhibit

2





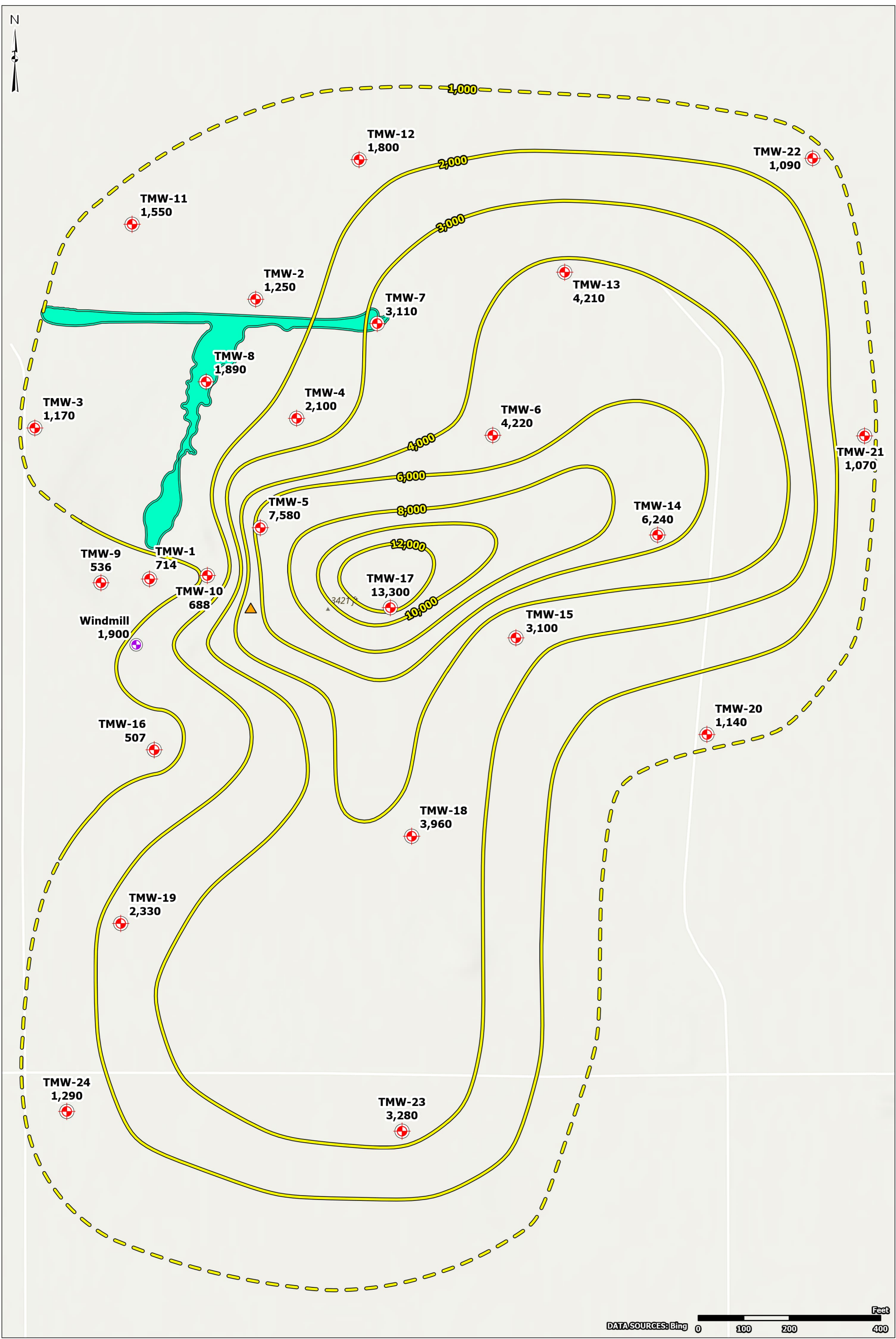
- Chloride Contours (mg/l)
- Chloride Contours (mg/l) - Inferred
- Inferred Release
- Existing Monitoring Well
- Static Control GPS
- Windmill

Project No.: KH247030
Date: Feb 20 2025
Drawn By: JWL
Reviewed By: JRG



4526 W Pierce St
Carlsbad, NM
PH. 806-300-0140 terracon.com

Chloride Concentration Map - 02/2025	Exhibit
EBDU 37 32.4807053, -103.123085 Apache Corporation Eunice, Lea County, New Mexico	5



- TDS Contours (mg/l)
- TDS Contours (mg/l) - Inferred
- Inferred Release
- Existing Monitoring Well
- Static Control GPS
- Windmill

Project No.:
KH247030
Date:
Feb 20 2025
Drawn By:
JWL
Reviewed By:
JRG



4526 W Pierce St
Carlsbad, NM
PH. 806-300-0140 terracon.com

TDS Concentration Map - 02/2025

EBDU 37
32.4807053, -103.123085
Apache Corporation
Eunice, Lea County, New Mexico

Exhibit

6

APPENDIX A – LABORATORY DATA PACKAGES



Environment Testing

1

2

3

4

5

6

7

8

9

10

11

12

13

ANALYTICAL REPORT

PREPARED FOR

Attn: John Grams
Terracon Consulting Eng & Scientists
5847 50th St
Lubbock, Texas 79424

Generated 2/11/2025 1:24:16 PM

JOB DESCRIPTION

Apache EBDU
KH247030

JOB NUMBER

820-17297-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.

Eurofins Lubbock

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
2/11/2025 1:24:16 PM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Eurofins Lubbock

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Coliform MCLs

· Based on the EPA primary drinking water standard MCL for total coliforms, a water supply is considered bacteriologically "SAFE" if no coliform bacteria are detected. To be considered "SAFE" your report should indicate "<1 cfu/100mL" or "NEG" for the coliform test. If you report indicates a positive result "POS" or a value greater than or equal to one, then your supply is "UNSAFE FOR DRINKING" contact your local health department.

Warranties, Terms, and Conditions

· Analyses for Field Parameters are performed by Eurofins Philadelphia field staff. Locations and certifications are identified on the Chain of Custody as follows:

ERF = field staff performs tests under NJ State certification # 02015.

VL = field staff performs tests under NJ State certification # 06005.

WG = field staff performs tests under NJ State certification # PA001, PA State certification # 48-01334.

H = field staff performs tests under NJ NELAP certification # PA093, PA NELAP certification # 46-05499.

· Test results meet all TNI or other applicable regulatory agency requirements, including holding times and preservation, unless otherwise indicated.

· The report shall not be reproduced, except in full, without the written consent of the laboratory

· All samples are collected as "grab" samples unless otherwise identified.

· Reported results related only to the samples as tested. Eurofins Philadelphia is not responsible for sample integrity unless sampling has been performed by a member of our staff.

· Eurofins Philadelphia is not responsible for sampling and/or testing omissions. Note that regulatory authorities may assess substantial fines for testing omissions. Please track your sample collection schedules and results on a regular basis (e.g. weekly, monthly, or quarterly) to ensure compliance.

· Eurofins' online data portal "TotalAccess" will provide you with real-time access to collection dates and testing results. Please contact Client Services for further information.

· The following personnel or their deputies have approved the results of the tests performed by Eurofins Philadelphia : Nicki Smith (Environmental Chemistry) and Jacqueline Gartner (Water Microbiology).



Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Laboratory Job ID: 820-17297-1
SDG: KH247030

Table of Contents

Cover Page	1
Table of Contents	4
Definitions/Glossary	5
Case Narrative	6
Client Sample Results	7
QC Sample Results	9
QC Association Summary	11
Lab Chronicle	12
Certification Summary	14
Method Summary	15
Sample Summary	16
Chain of Custody	17
Receipt Checklists	18

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

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17297-1
SDG: KH247030

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Terracon Consulting Eng & Scientists
Project: Apache EBDU

Job ID: 820-17297-1

Job ID: 820-17297-1**Eurofins Lubbock****Job Narrative
820-17297-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 2/5/2025 8:16 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.1°C.

Receipt Exceptions

The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): MW-23 (820-17297-1), TMW-24 (820-17297-2), MW-20 (820-17297-3), TMW-19 (820-17297-4), MW-22 (820-17297-5), TMW-16 (820-17297-6), MW-21 (820-17297-7), TMW-9 (820-17297-8) and TMW-1 (820-17297-9). The container labels lists a sample collection date of 2/4/25, while the COC lists a sample collection date of 10/24/24. The client was contacted and revised the COC to include the correct sample collection date.

HPLC/IC

Method 300_ORGFM_28D: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-23 (820-17297-1) and TMW-19 (820-17297-4). Elevated reporting limits (RLs) are provided.

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-215377 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Lubbock

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17297-1
SDG: KH247030

Client Sample ID: MW-23

Lab Sample ID: 820-17297-1

Date Collected: 02/04/25 09:20

Matrix: Water

Date Received: 02/05/25 08:16

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	993		5.00		mg/L			02/07/25 19:41	10

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	3280		40.0		mg/L			02/10/25 09:06	1

Client Sample ID: TMW-24

Lab Sample ID: 820-17297-2

Date Collected: 02/04/25 10:58

Matrix: Water

Date Received: 02/05/25 08:16

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	272		0.500		mg/L			02/07/25 19:46	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1290		20.0		mg/L			02/10/25 09:06	1

Client Sample ID: MW-20

Lab Sample ID: 820-17297-3

Date Collected: 02/04/25 11:12

Matrix: Water

Date Received: 02/05/25 08:16

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	295		0.500		mg/L			02/07/25 19:57	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1140		20.0		mg/L			02/10/25 09:06	1

Client Sample ID: TMW-19

Lab Sample ID: 820-17297-4

Date Collected: 02/04/25 12:22

Matrix: Water

Date Received: 02/05/25 08:16

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	792		5.00		mg/L			02/07/25 20:36	10

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	2330		20.0		mg/L			02/10/25 09:06	1

Client Sample ID: MW-22

Lab Sample ID: 820-17297-5

Date Collected: 02/04/25 12:45

Matrix: Water

Date Received: 02/05/25 08:16

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	272		0.500		mg/L			02/07/25 20:41	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1090		10.0		mg/L			02/10/25 09:06	1

Eurofins Lubbock

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17297-1
SDG: KH247030

Client Sample ID: TMW-16

Lab Sample ID: 820-17297-6

Date Collected: 02/04/25 13:42

Matrix: Water

Date Received: 02/05/25 08:16

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	46.9		0.500		mg/L			02/07/25 20:52	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	507		10.0		mg/L			02/10/25 09:06	1

Client Sample ID: MW-21

Lab Sample ID: 820-17297-7

Date Collected: 02/04/25 14:08

Matrix: Water

Date Received: 02/05/25 08:16

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	268		0.500		mg/L			02/07/25 21:19	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1070		10.0		mg/L			02/10/25 09:06	1

Client Sample ID: TMW-9

Lab Sample ID: 820-17297-8

Date Collected: 02/04/25 15:00

Matrix: Water

Date Received: 02/05/25 08:16

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	64.1		0.500		mg/L			02/07/25 21:30	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	536		10.0		mg/L			02/10/25 09:06	1

Client Sample ID: TMW-1

Lab Sample ID: 820-17297-9

Date Collected: 02/04/25 16:15

Matrix: Water

Date Received: 02/05/25 08:16

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	133		0.500		mg/L			02/07/25 21:36	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	714		10.0		mg/L			02/10/25 09:06	1

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17297-1
SDG: KH247030

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-215377/3

Matrix: Water

Analysis Batch: 215377

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.500	U	0.500		mg/L			02/07/25 11:34	1

Lab Sample ID: MB 860-215377/52

Matrix: Water

Analysis Batch: 215377

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.500	U	0.500		mg/L			02/07/25 17:46	1

Lab Sample ID: LCS 860-215377/53

Matrix: Water

Analysis Batch: 215377

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.21		mg/L		102	90 - 110

Lab Sample ID: LCSD 860-215377/54

Matrix: Water

Analysis Batch: 215377

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.20		mg/L		102	90 - 110	0	20

Lab Sample ID: LLCS 860-215377/7

Matrix: Water

Analysis Batch: 215377

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.5625		mg/L		113	50 - 150

Lab Sample ID: 820-17297-3 MS

Matrix: Water

Analysis Batch: 215377

Client Sample ID: MW-20

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	295		10.0	301.8	4	mg/L		69	90 - 110

Lab Sample ID: 820-17297-3 MSD

Matrix: Water

Analysis Batch: 215377

Client Sample ID: MW-20

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	295		10.0	301.4	4	mg/L		64	90 - 110	0	15

Lab Sample ID: 820-17297-6 MS

Matrix: Water

Analysis Batch: 215377

Client Sample ID: TMW-16

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	46.9		10.0	57.73	4	mg/L		108	90 - 110

Eurofins Lubbock

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17297-1
SDG: KH247030

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 820-17297-6 MSD
Matrix: Water
Analysis Batch: 215377

Client Sample ID: TMW-16
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	46.9		10.0	57.67	4	mg/L		108	90 - 110	0	15

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

Lab Sample ID: MB 860-215628/1
Matrix: Water
Analysis Batch: 215628

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00		mg/L			02/10/25 09:05	1

Lab Sample ID: LCS 860-215628/2
Matrix: Water
Analysis Batch: 215628

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1002		mg/L		100	80 - 120

Lab Sample ID: LLCS 860-215628/3
Matrix: Water
Analysis Batch: 215628

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	5.00	7.500		mg/L		150	50 - 150

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17297-1
SDG: KH247030

HPLC/IC

Analysis Batch: 215377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17297-1	MW-23	Total/NA	Water	300.0	
820-17297-2	TMW-24	Total/NA	Water	300.0	
820-17297-3	MW-20	Total/NA	Water	300.0	
820-17297-4	TMW-19	Total/NA	Water	300.0	
820-17297-5	MW-22	Total/NA	Water	300.0	
820-17297-6	TMW-16	Total/NA	Water	300.0	
820-17297-7	MW-21	Total/NA	Water	300.0	
820-17297-8	TMW-9	Total/NA	Water	300.0	
820-17297-9	TMW-1	Total/NA	Water	300.0	
MB 860-215377/3	Method Blank	Total/NA	Water	300.0	
MB 860-215377/52	Method Blank	Total/NA	Water	300.0	
LCS 860-215377/53	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-215377/54	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-215377/7	Lab Control Sample	Total/NA	Water	300.0	
820-17297-3 MS	MW-20	Total/NA	Water	300.0	
820-17297-3 MSD	MW-20	Total/NA	Water	300.0	
820-17297-6 MS	TMW-16	Total/NA	Water	300.0	
820-17297-6 MSD	TMW-16	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 215628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17297-1	MW-23	Total/NA	Water	SM 2540C	
820-17297-2	TMW-24	Total/NA	Water	SM 2540C	
820-17297-3	MW-20	Total/NA	Water	SM 2540C	
820-17297-4	TMW-19	Total/NA	Water	SM 2540C	
820-17297-5	MW-22	Total/NA	Water	SM 2540C	
820-17297-6	TMW-16	Total/NA	Water	SM 2540C	
820-17297-7	MW-21	Total/NA	Water	SM 2540C	
820-17297-8	TMW-9	Total/NA	Water	SM 2540C	
820-17297-9	TMW-1	Total/NA	Water	SM 2540C	
MB 860-215628/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-215628/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LLCS 860-215628/3	Lab Control Sample	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17297-1
SDG: KH247030

Client Sample ID: MW-23**Lab Sample ID: 820-17297-1****Date Collected: 02/04/25 09:20****Matrix: Water****Date Received: 02/05/25 08:16**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			215377	02/07/25 19:41	WP	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	215628	02/10/25 09:06	TR	EET HOU

Client Sample ID: TMW-24**Lab Sample ID: 820-17297-2****Date Collected: 02/04/25 10:58****Matrix: Water****Date Received: 02/05/25 08:16**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			215377	02/07/25 19:46	WP	EET HOU
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	215628	02/10/25 09:06	TR	EET HOU

Client Sample ID: MW-20**Lab Sample ID: 820-17297-3****Date Collected: 02/04/25 11:12****Matrix: Water****Date Received: 02/05/25 08:16**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			215377	02/07/25 19:57	WP	EET HOU
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	215628	02/10/25 09:06	TR	EET HOU

Client Sample ID: TMW-19**Lab Sample ID: 820-17297-4****Date Collected: 02/04/25 12:22****Matrix: Water****Date Received: 02/05/25 08:16**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			215377	02/07/25 20:36	WP	EET HOU
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	215628	02/10/25 09:06	TR	EET HOU

Client Sample ID: MW-22**Lab Sample ID: 820-17297-5****Date Collected: 02/04/25 12:45****Matrix: Water****Date Received: 02/05/25 08:16**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			215377	02/07/25 20:41	WP	EET HOU
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	215628	02/10/25 09:06	TR	EET HOU

Client Sample ID: TMW-16**Lab Sample ID: 820-17297-6****Date Collected: 02/04/25 13:42****Matrix: Water****Date Received: 02/05/25 08:16**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			215377	02/07/25 20:52	WP	EET HOU
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	215628	02/10/25 09:06	TR	EET HOU

Eurofins Lubbock

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17297-1
SDG: KH247030

Client Sample ID: MW-21
Date Collected: 02/04/25 14:08
Date Received: 02/05/25 08:16

Lab Sample ID: 820-17297-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			215377	02/07/25 21:19	WP	EET HOU
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	215628	02/10/25 09:06	TR	EET HOU

Client Sample ID: TMW-9
Date Collected: 02/04/25 15:00
Date Received: 02/05/25 08:16

Lab Sample ID: 820-17297-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			215377	02/07/25 21:30	WP	EET HOU
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	215628	02/10/25 09:06	TR	EET HOU

Client Sample ID: TMW-1
Date Collected: 02/04/25 16:15
Date Received: 02/05/25 08:16

Lab Sample ID: 820-17297-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			215377	02/07/25 21:36	WP	EET HOU
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	215628	02/10/25 09:06	TR	EET HOU

Laboratory References:
EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17297-1
SDG: KH247030

Laboratory: Eurofins Houston

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215	07-01-26

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

Method Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17297-1
SDG: KH247030

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET HOU

Protocol References:

- EPA = US Environmental Protection Agency
- SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

- EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

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

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17297-1
SDG: KH247030

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
820-17297-1	MW-23	Water	02/04/25 09:20	02/05/25 08:16
820-17297-2	TMW-24	Water	02/04/25 10:58	02/05/25 08:16
820-17297-3	MW-20	Water	02/04/25 11:12	02/05/25 08:16
820-17297-4	TMW-19	Water	02/04/25 12:22	02/05/25 08:16
820-17297-5	MW-22	Water	02/04/25 12:45	02/05/25 08:16
820-17297-6	TMW-16	Water	02/04/25 13:42	02/05/25 08:16
820-17297-7	MW-21	Water	02/04/25 14:08	02/05/25 08:16
820-17297-8	TMW-9	Water	02/04/25 15:00	02/05/25 08:16
820-17297-9	TMW-1	Water	02/04/25 16:15	02/05/25 08:16

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

Loc: 820
17297



Office Location
Lubbock

Project Manager
John Byrnes

Sampler's Name
Jack Kirkpatrick

Laboratory: Xenco
Address: 6701 Aberdeen
Lubbock, Texas 79424

Phone: (806) 787-0744

Contact:

Sampler's Signature

[Signature]

Project Number
KH247030

Project Name
Apache EBDU

Identifying Marks of Sample(s)

Matrix	Date	Time	No. Type of Containers		Start Depth (FT)	End Depth (FT)	Poly 500 ml	Poly 250 ml	Total Dissolved Solids (TDS)	Chloride (EPA Method 300)	Lab Sample ID
			Comp	Grab							
GW	10/24/2024	0920		X			X	X	X	X	
GW	10/24/2024	1058		X			X	X	X	X	
GW	10/24/2024	1112		X			X	X	X	X	
GW	10/24/2024	1222		X			X	X	X	X	
GW	10/24/2024	1245		X			X	X	X	X	
GW	10/24/2024	1342		X			X	X	X	X	
GW	10/24/2024	1408		X			X	X	X	X	
GW	10/24/2024	1500		X			X	X	X	X	
GW	10/24/2024	1615		X			X	X	X	X	

TURNAROUND TIME

Relinquished by (Signature) *[Signature]* Date: 2/5/2025 Time: 0816

Relinquished by (Signature) *[Signature]* Date: 2/5/25 Time: 816

Relinquished by (Signature) Date: Date: Time: Time:

Relinquished by (Signature) Date: Date: Time: Time:

Matrix Container
WW-Wastewater
VOA - 40 ml vial

W - Water
A/G - Amber Glass 1L

L - Liquid
P/O - Plastic or other ...Wipe

S - Soil
250 ml - Glass wide mouth

A - Air Bag
C - Charcoal tube

SL - Sludge

Lubbock Office ■ 5847 50th Street ■ Lubbock, Texas 79424 ■ 806-300-0140

Responsive ■ Resourceful ■ Reliable

ANALYSIS REQUESTED

CHAIN OF CUSTODY

TEMP OF COOLER WHEN RECEIVED (°C) 0.8/11°C IR-1

DUE DATE:

Page 1 of 1



820-17297 Chain of Custody

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-17297-1

SDG Number: KH247030

Login Number: 17297

List Number: 1

Creator: Taylor, Holly

List Source: Eurofins Lubbock

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

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-17297-1

SDG Number: KH247030

Login Number: 17297

List Number: 2

Creator: Baker, Jeremiah

List Source: Eurofins Houston

List Creation: 02/06/25 01:22 PM

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



Environment Testing

1

2

3

4

5

6

7

8

9

10

11

12

13

ANALYTICAL REPORT

PREPARED FOR

Attn: John Grams
Terracon Consulting Eng & Scientists
5847 50th St
Lubbock, Texas 79424

Generated 2/13/2025 1:54:01 PM

JOB DESCRIPTION

Apache EBDU
KH247030

JOB NUMBER

820-17343-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.

Eurofins Lubbock

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
2/13/2025 1:54:01 PM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Eurofins Lubbock

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Coliform MCLs

· Based on the EPA primary drinking water standard MCL for total coliforms, a water supply is considered bacteriologically "SAFE" if no coliform bacteria are detected. To be considered "SAFE" your report should indicate "<1 cfu/100mL" or "NEG" for the coliform test. If you report indicates a positive result "POS" or a value greater than or equal to one, then your supply is "UNSAFE FOR DRINKING" contact your local health department.

Warranties, Terms, and Conditions

· Analyses for Field Parameters are performed by Eurofins Philadelphia field staff. Locations and certifications are identified on the Chain of Custody as follows:

ERF = field staff performs tests under NJ State certification # 02015.

VL = field staff performs tests under NJ State certification # 06005.

WG = field staff performs tests under NJ State certification # PA001, PA State certification # 48-01334.

H = field staff performs tests under NJ NELAP certification # PA093, PA NELAP certification # 46-05499.

· Test results meet all TNI or other applicable regulatory agency requirements, including holding times and preservation, unless otherwise indicated.

· The report shall not be reproduced, except in full, without the written consent of the laboratory

· All samples are collected as "grab" samples unless otherwise identified.

· Reported results related only to the samples as tested. Eurofins Philadelphia is not responsible for sample integrity unless sampling has been performed by a member of our staff.

· Eurofins Philadelphia is not responsible for sampling and/or testing omissions. Note that regulatory authorities may assess substantial fines for testing omissions. Please track your sample collection schedules and results on a regular basis (e.g. weekly, monthly, or quarterly) to ensure compliance.

· Eurofins' online data portal "TotalAccess" will provide you with real-time access to collection dates and testing results. Please contact Client Services for further information.

· The following personnel or their deputies have approved the results of the tests performed by Eurofins Philadelphia : Nicki Smith (Environmental Chemistry) and Jacqueline Gartner (Water Microbiology).



Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Laboratory Job ID: 820-17343-1
SDG: KH247030

Table of Contents

Cover Page	1
Table of Contents	4
Definitions/Glossary	5
Case Narrative	6
Client Sample Results	7
QC Sample Results	8
QC Association Summary	9
Lab Chronicle	10
Certification Summary	11
Method Summary	12
Sample Summary	13
Chain of Custody	14
Receipt Checklists	15

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

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17343-1
SDG: KH247030

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Terracon Consulting Eng & Scientists
Project: Apache EBDU

Job ID: 820-17343-1

Job ID: 820-17343-1

Eurofins Lubbock

Job Narrative
820-17343-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 2/6/2025 11:32 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.9°C.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Lubbock

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17343-1
SDG: KH247030

Client Sample ID: TMW-11
Date Collected: 02/05/25 13:02
Date Received: 02/06/25 11:32

Lab Sample ID: 820-17343-1
Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	347		0.500		mg/L			02/11/25 05:51	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1550		20.0		mg/L			02/12/25 07:11	1

Client Sample ID: TMW-12
Date Collected: 02/05/25 14:19
Date Received: 02/06/25 11:32

Lab Sample ID: 820-17343-2
Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	443		0.500		mg/L			02/11/25 06:44	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1800		20.0		mg/L			02/12/25 07:11	1

Client Sample ID: TMW-8
Date Collected: 02/05/25 15:36
Date Received: 02/06/25 11:32

Lab Sample ID: 820-17343-3
Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	457		0.500		mg/L			02/11/25 07:10	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1890		20.0		mg/L			02/12/25 07:11	1

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17343-1
SDG: KH247030

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-215828/3

Matrix: Water

Analysis Batch: 215828

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.500	U	0.500		mg/L			02/10/25 20:09	1

Lab Sample ID: LCS 860-215828/4

Matrix: Water

Analysis Batch: 215828

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.19		mg/L		102	90 - 110

Lab Sample ID: LCSD 860-215828/5

Matrix: Water

Analysis Batch: 215828

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.08		mg/L		101	90 - 110	1	20

Lab Sample ID: LLCS 860-215828/7

Matrix: Water

Analysis Batch: 215828

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.6053		mg/L		121	50 - 150

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

Lab Sample ID: MB 860-216142/1

Matrix: Water

Analysis Batch: 216142

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00		mg/L			02/12/25 06:33	1

Lab Sample ID: LCS 860-216142/2

Matrix: Water

Analysis Batch: 216142

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	986.0		mg/L		99	80 - 120

Lab Sample ID: 820-17343-1 DU

Matrix: Water

Analysis Batch: 216142

Client Sample ID: TMW-11

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1550		1580		mg/L		2	10

Eurofins Lubbock

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17343-1
SDG: KH247030

HPLC/IC

Analysis Batch: 215828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17343-1	TMW-11	Total/NA	Water	300.0	
820-17343-2	TMW-12	Total/NA	Water	300.0	
820-17343-3	TMW-8	Total/NA	Water	300.0	
MB 860-215828/3	Method Blank	Total/NA	Water	300.0	
LCS 860-215828/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-215828/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-215828/7	Lab Control Sample	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 216142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17343-1	TMW-11	Total/NA	Water	SM 2540C	
820-17343-2	TMW-12	Total/NA	Water	SM 2540C	
820-17343-3	TMW-8	Total/NA	Water	SM 2540C	
MB 860-216142/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-216142/2	Lab Control Sample	Total/NA	Water	SM 2540C	
820-17343-1 DU	TMW-11	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17343-1
SDG: KH247030

Client Sample ID: TMW-11
Date Collected: 02/05/25 13:02
Date Received: 02/06/25 11:32

Lab Sample ID: 820-17343-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			215828	02/11/25 05:51	A1S	EET HOU
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	216142	02/12/25 07:11	TR	EET HOU

Client Sample ID: TMW-12
Date Collected: 02/05/25 14:19
Date Received: 02/06/25 11:32

Lab Sample ID: 820-17343-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			215828	02/11/25 06:44	A1S	EET HOU
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	216142	02/12/25 07:11	TR	EET HOU

Client Sample ID: TMW-8
Date Collected: 02/05/25 15:36
Date Received: 02/06/25 11:32

Lab Sample ID: 820-17343-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			215828	02/11/25 07:10	A1S	EET HOU
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	216142	02/12/25 07:11	TR	EET HOU

Laboratory References:
EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17343-1
SDG: KH247030

Laboratory: Eurofins Houston

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215	07-01-26

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

Method Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17343-1
SDG: KH247030

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET HOU

Protocol References:

- EPA = US Environmental Protection Agency
- SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

- EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

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

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17343-1
SDG: KH247030

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
820-17343-1	TMW-11	Water	02/05/25 13:02	02/06/25 11:32
820-17343-2	TMW-12	Water	02/05/25 14:19	02/06/25 11:32
820-17343-3	TMW-8	Water	02/05/25 15:36	02/06/25 11:32

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

Loc: 820
17343

820-17343 Chain of Custody



CHAIN OF CUSTODY

Laboratory: Xenco

Address: 6701 Aberteen
Lubbock, Texas 79424

Phone: (806) 794-1296

Contact: Holly Taylor

Office Location

Lubbock

Project Manager

Travis Casey

Sampler's Name

Aaron Adams

Sampler's Signature

Project Number		Project Name		Apache EBDU		No. Type of Containers	
Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth (FT)	End Depth (FT)
GW	2/5/2025	13:02			TMW-11		
GW	2/5/2025	14:19			TMW-12		
GW	2/5/2025	15:36			TMW-8		
NFE							

TURNAROUND TIME		48-Hour Rush		24-Hour Rush		TRRP Laboratory Review Checklist	
Relinquished by (Signature)	Date	Time	Received by (Signature)	Date	Time	Yes	No
	2-5-25	19:00		2/5/25	19:00		
	2/6/25	11:32		2/6/25	11:32		

Matrix Container	W - Water	S - Soil	L - Liquid	A - Air Bag	C - Charcoal tube	SL - Sludge
WW-Wastewater						
VOA - 40 ml vial						

Lubbock Office ■ 5847 50th Street ■ Lubbock, Texas 79424 ■ 806-300-0140

Responsive ■ Resourceful ■ Reliable

Bill To: Terracon

e-mail results to:
austin.worley@terracon.com
jack.kirkpatrick@terracon.com
joseph.guesnier@terracon.com

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-17343-1

SDG Number: KH247030

Login Number: 17343

List Number: 1

Creator: Guillen, Kyrstin

List Source: Eurofins Lubbock

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

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-17343-1

SDG Number: KH247030

Login Number: 17343

List Number: 2

Creator: Baker, Jeremiah

List Source: Eurofins Houston

List Creation: 02/07/25 11:44 AM

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



Environment Testing

1

2

3

4

5

6

7

8

9

10

11

12

13

ANALYTICAL REPORT

PREPARED FOR

Attn: John Grams
Terracon Consulting Eng & Scientists
5847 50th St
Lubbock, Texas 79424

Generated 2/13/2025 2:13:58 PM

JOB DESCRIPTION

Apache EBDU
KH247030

JOB NUMBER

820-17361-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.

Eurofins Lubbock

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
2/13/2025 2:13:58 PM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Eurofins Lubbock

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Coliform MCLs

· Based on the EPA primary drinking water standard MCL for total coliforms, a water supply is considered bacteriologically "SAFE" if no coliform bacteria are detected. To be considered "SAFE" your report should indicate "<1 cfu/100mL" or "NEG" for the coliform test. If you report indicates a positive result "POS" or a value greater than or equal to one, then your supply is "UNSAFE FOR DRINKING" contact your local health department.

Warranties, Terms, and Conditions

· Analyses for Field Parameters are performed by Eurofins Philadelphia field staff. Locations and certifications are identified on the Chain of Custody as follows:

ERF = field staff performs tests under NJ State certification # 02015.

VL = field staff performs tests under NJ State certification # 06005.

WG = field staff performs tests under NJ State certification # PA001, PA State certification # 48-01334.

H = field staff performs tests under NJ NELAP certification # PA093, PA NELAP certification # 46-05499.

· Test results meet all TNI or other applicable regulatory agency requirements, including holding times and preservation, unless otherwise indicated.

· The report shall not be reproduced, except in full, without the written consent of the laboratory

· All samples are collected as "grab" samples unless otherwise identified.

· Reported results related only to the samples as tested. Eurofins Philadelphia is not responsible for sample integrity unless sampling has been performed by a member of our staff.

· Eurofins Philadelphia is not responsible for sampling and/or testing omissions. Note that regulatory authorities may assess substantial fines for testing omissions. Please track your sample collection schedules and results on a regular basis (e.g. weekly, monthly, or quarterly) to ensure compliance.

· Eurofins' online data portal "TotalAccess" will provide you with real-time access to collection dates and testing results. Please contact Client Services for further information.

· The following personnel or their deputies have approved the results of the tests performed by Eurofins Philadelphia : Nicki Smith (Environmental Chemistry) and Jacqueline Gartner (Water Microbiology).



Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Laboratory Job ID: 820-17361-1
SDG: KH247030

Table of Contents

Cover Page	1
Table of Contents	4
Definitions/Glossary	5
Case Narrative	6
Client Sample Results	7
QC Sample Results	10
QC Association Summary	12
Lab Chronicle	13
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receipt Checklists	21

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

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17361-1
SDG: KH247030

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Terracon Consulting Eng & Scientists
Project: Apache EBDU

Job ID: 820-17361-1

Job ID: 820-17361-1**Eurofins Lubbock****Job Narrative
820-17361-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 2/7/2025 11:39 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.2°C.

HPLC/IC

Method 300_ORGFM_28D: The following samples were diluted to bring the concentration of target analytes within the calibration range: TMW-4 (820-17361-2), TMW-7 (820-17361-4), TMW-6 (820-17361-6), TMW-5-HS (820-17361-7), TMW-5-LF (820-17361-8), TMW-13 (820-17361-9), TMW-18 (820-17361-10), TMW-15 (820-17361-11) and TMW-14 (820-17361-12). Elevated reporting limits (RLs) are provided.

Method 300_ORGFM_28D: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with analytical batch 860-216221 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Chloride in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Lubbock

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17361-1
SDG: KH247030

Client Sample ID: TMW-3-HS

Lab Sample ID: 820-17361-1

Date Collected: 02/06/25 08:37

Matrix: Water

Date Received: 02/07/25 11:39

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	213		0.500		mg/L			02/12/25 17:57	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1090		10.0		mg/L			02/12/25 07:18	1

Client Sample ID: TMW-4

Lab Sample ID: 820-17361-2

Date Collected: 02/06/25 09:00

Matrix: Water

Date Received: 02/07/25 11:39

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	569		5.00		mg/L			02/12/25 18:14	10

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	2100		20.0		mg/L			02/12/25 07:18	1

Client Sample ID: TMW-3-LF

Lab Sample ID: 820-17361-3

Date Collected: 02/06/25 09:41

Matrix: Water

Date Received: 02/07/25 11:39

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	254		0.500		mg/L			02/12/25 18:30	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1170		20.0		mg/L			02/12/25 07:18	1

Client Sample ID: TMW-7

Lab Sample ID: 820-17361-4

Date Collected: 02/06/25 10:18

Matrix: Water

Date Received: 02/07/25 11:39

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1030		2.50		mg/L			02/12/25 18:41	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	3110		40.0		mg/L			02/12/25 07:18	1

Client Sample ID: TMW-10

Lab Sample ID: 820-17361-5

Date Collected: 02/06/25 11:05

Matrix: Water

Date Received: 02/07/25 11:39

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	108		0.500		mg/L			02/12/25 18:52	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	688		10.0		mg/L			02/12/25 07:18	1

Eurofins Lubbock

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17361-1
SDG: KH247030

Client Sample ID: TMW-6

Lab Sample ID: 820-17361-6

Date Collected: 02/06/25 11:39

Matrix: Water

Date Received: 02/07/25 11:39

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1520		2.50		mg/L			02/12/25 19:03	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	4220		40.0		mg/L			02/12/25 07:18	1

Client Sample ID: TMW-5-HS

Lab Sample ID: 820-17361-7

Date Collected: 02/06/25 11:40

Matrix: Water

Date Received: 02/07/25 11:39

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2120		2.50		mg/L			02/12/25 19:14	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	5280		40.0		mg/L			02/12/25 07:18	1

Client Sample ID: TMW-5-LF

Lab Sample ID: 820-17361-8

Date Collected: 02/06/25 12:35

Matrix: Water

Date Received: 02/07/25 11:39

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3010		5.00		mg/L			02/12/25 19:41	10

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	7580		100		mg/L			02/12/25 07:18	1

Client Sample ID: TMW-13

Lab Sample ID: 820-17361-9

Date Collected: 02/06/25 13:00

Matrix: Water

Date Received: 02/07/25 11:39

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1480		2.50		mg/L			02/12/25 19:57	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	4210		40.0		mg/L			02/12/25 07:18	1

Client Sample ID: TMW-18

Lab Sample ID: 820-17361-10

Date Collected: 02/06/25 13:51

Matrix: Water

Date Received: 02/07/25 11:39

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1390		2.50		mg/L			02/12/25 20:08	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	3960		40.0		mg/L			02/12/25 07:18	1

Eurofins Lubbock

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17361-1
SDG: KH247030

Client Sample ID: TMW-15
Date Collected: 02/06/25 14:16
Date Received: 02/07/25 11:39

Lab Sample ID: 820-17361-11
Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1060		2.50		mg/L			02/12/25 20:19	5
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	3010		40.0		mg/L			02/12/25 07:18	1

Client Sample ID: TMW-14
Date Collected: 02/06/25 15:03
Date Received: 02/07/25 11:39

Lab Sample ID: 820-17361-12
Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2410		5.00		mg/L			02/12/25 20:41	10
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	6240		100		mg/L			02/12/25 07:18	1

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17361-1
SDG: KH247030

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-216221/114

Matrix: Water

Analysis Batch: 216221

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.500	U	0.500		mg/L			02/12/25 21:19	1

Lab Sample ID: MB 860-216221/60

Matrix: Water

Analysis Batch: 216221

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.500	U	0.500		mg/L			02/12/25 16:24	1

Lab Sample ID: LCS 860-216221/61

Matrix: Water

Analysis Batch: 216221

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.809		mg/L		98	90 - 110

Lab Sample ID: LCSD 860-216221/62

Matrix: Water

Analysis Batch: 216221

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	9.987		mg/L		100	90 - 110	2	20

Lab Sample ID: LLCS 860-216221/118

Matrix: Water

Analysis Batch: 216221

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.5864		mg/L		117	50 - 150

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

Lab Sample ID: MB 860-216158/1

Matrix: Water

Analysis Batch: 216158

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00		mg/L			02/12/25 07:17	1

Lab Sample ID: LCS 860-216158/2

Matrix: Water

Analysis Batch: 216158

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	977.0		mg/L		98	80 - 120

Eurofins Lubbock

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17361-1
SDG: KH247030

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

Lab Sample ID: 820-17361-1 DU				Client Sample ID: TMW-3-HS			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 216158							
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD Limit
Total Dissolved Solids	1090		1089		mg/L		0 10

Lab Sample ID: 820-17361-2 DU				Client Sample ID: TMW-4			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 216158							
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD Limit
Total Dissolved Solids	2100		2102		mg/L		0.2 10

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17361-1
SDG: KH247030

HPLC/IC

Analysis Batch: 216221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17361-1	TMW-3-HS	Total/NA	Water	300.0	
820-17361-2	TMW-4	Total/NA	Water	300.0	
820-17361-3	TMW-3-LF	Total/NA	Water	300.0	
820-17361-4	TMW-7	Total/NA	Water	300.0	
820-17361-5	TMW-10	Total/NA	Water	300.0	
820-17361-6	TMW-6	Total/NA	Water	300.0	
820-17361-7	TMW-5-HS	Total/NA	Water	300.0	
820-17361-8	TMW-5-LF	Total/NA	Water	300.0	
820-17361-9	TMW-13	Total/NA	Water	300.0	
820-17361-10	TMW-18	Total/NA	Water	300.0	
820-17361-11	TMW-15	Total/NA	Water	300.0	
820-17361-12	TMW-14	Total/NA	Water	300.0	
MB 860-216221/114	Method Blank	Total/NA	Water	300.0	
MB 860-216221/60	Method Blank	Total/NA	Water	300.0	
LCS 860-216221/61	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-216221/62	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-216221/118	Lab Control Sample	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 216158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17361-1	TMW-3-HS	Total/NA	Water	SM 2540C	
820-17361-2	TMW-4	Total/NA	Water	SM 2540C	
820-17361-3	TMW-3-LF	Total/NA	Water	SM 2540C	
820-17361-4	TMW-7	Total/NA	Water	SM 2540C	
820-17361-5	TMW-10	Total/NA	Water	SM 2540C	
820-17361-6	TMW-6	Total/NA	Water	SM 2540C	
820-17361-7	TMW-5-HS	Total/NA	Water	SM 2540C	
820-17361-8	TMW-5-LF	Total/NA	Water	SM 2540C	
820-17361-9	TMW-13	Total/NA	Water	SM 2540C	
820-17361-10	TMW-18	Total/NA	Water	SM 2540C	
820-17361-11	TMW-15	Total/NA	Water	SM 2540C	
820-17361-12	TMW-14	Total/NA	Water	SM 2540C	
MB 860-216158/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-216158/2	Lab Control Sample	Total/NA	Water	SM 2540C	
820-17361-1 DU	TMW-3-HS	Total/NA	Water	SM 2540C	
820-17361-2 DU	TMW-4	Total/NA	Water	SM 2540C	

Eurofins Lubbock

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17361-1
SDG: KH247030

Client Sample ID: TMW-3-HS

Lab Sample ID: 820-17361-1

Date Collected: 02/06/25 08:37

Matrix: Water

Date Received: 02/07/25 11:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			216221	02/12/25 17:57	A1S	EET HOU
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	216158	02/12/25 07:18	TR	EET HOU

Client Sample ID: TMW-4

Lab Sample ID: 820-17361-2

Date Collected: 02/06/25 09:00

Matrix: Water

Date Received: 02/07/25 11:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			216221	02/12/25 18:14	A1S	EET HOU
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	216158	02/12/25 07:18	TR	EET HOU

Client Sample ID: TMW-3-LF

Lab Sample ID: 820-17361-3

Date Collected: 02/06/25 09:41

Matrix: Water

Date Received: 02/07/25 11:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			216221	02/12/25 18:30	A1S	EET HOU
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	216158	02/12/25 07:18	TR	EET HOU

Client Sample ID: TMW-7

Lab Sample ID: 820-17361-4

Date Collected: 02/06/25 10:18

Matrix: Water

Date Received: 02/07/25 11:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			216221	02/12/25 18:41	A1S	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	216158	02/12/25 07:18	TR	EET HOU

Client Sample ID: TMW-10

Lab Sample ID: 820-17361-5

Date Collected: 02/06/25 11:05

Matrix: Water

Date Received: 02/07/25 11:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			216221	02/12/25 18:52	A1S	EET HOU
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	216158	02/12/25 07:18	TR	EET HOU

Client Sample ID: TMW-6

Lab Sample ID: 820-17361-6

Date Collected: 02/06/25 11:39

Matrix: Water

Date Received: 02/07/25 11:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			216221	02/12/25 19:03	A1S	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	216158	02/12/25 07:18	TR	EET HOU

Eurofins Lubbock

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17361-1
SDG: KH247030

Client Sample ID: TMW-5-HS

Lab Sample ID: 820-17361-7

Date Collected: 02/06/25 11:40

Matrix: Water

Date Received: 02/07/25 11:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			216221	02/12/25 19:14	A1S	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	216158	02/12/25 07:18	TR	EET HOU

Client Sample ID: TMW-5-LF

Lab Sample ID: 820-17361-8

Date Collected: 02/06/25 12:35

Matrix: Water

Date Received: 02/07/25 11:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			216221	02/12/25 19:41	A1S	EET HOU
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	216158	02/12/25 07:18	TR	EET HOU

Client Sample ID: TMW-13

Lab Sample ID: 820-17361-9

Date Collected: 02/06/25 13:00

Matrix: Water

Date Received: 02/07/25 11:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			216221	02/12/25 19:57	A1S	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	216158	02/12/25 07:18	TR	EET HOU

Client Sample ID: TMW-18

Lab Sample ID: 820-17361-10

Date Collected: 02/06/25 13:51

Matrix: Water

Date Received: 02/07/25 11:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			216221	02/12/25 20:08	A1S	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	216158	02/12/25 07:18	TR	EET HOU

Client Sample ID: TMW-15

Lab Sample ID: 820-17361-11

Date Collected: 02/06/25 14:16

Matrix: Water

Date Received: 02/07/25 11:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			216221	02/12/25 20:19	A1S	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	216158	02/12/25 07:18	TR	EET HOU

Client Sample ID: TMW-14

Lab Sample ID: 820-17361-12

Date Collected: 02/06/25 15:03

Matrix: Water

Date Received: 02/07/25 11:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			216221	02/12/25 20:41	A1S	EET HOU
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	216158	02/12/25 07:18	TR	EET HOU

Laboratory References:

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Eurofins Lubbock

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17361-1
SDG: KH247030

Laboratory: Eurofins Houston

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215	07-01-26

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

Method Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17361-1
SDG: KH247030

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET HOU

Protocol References:

- EPA = US Environmental Protection Agency
- SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

- EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17361-1
SDG: KH247030

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
820-17361-1	TMW-3-HS	Water	02/06/25 08:37	02/07/25 11:39
820-17361-2	TMW-4	Water	02/06/25 09:00	02/07/25 11:39
820-17361-3	TMW-3-LF	Water	02/06/25 09:41	02/07/25 11:39
820-17361-4	TMW-7	Water	02/06/25 10:18	02/07/25 11:39
820-17361-5	TMW-10	Water	02/06/25 11:05	02/07/25 11:39
820-17361-6	TMW-6	Water	02/06/25 11:39	02/07/25 11:39
820-17361-7	TMW-5-HS	Water	02/06/25 11:40	02/07/25 11:39
820-17361-8	TMW-5-LF	Water	02/06/25 12:35	02/07/25 11:39
820-17361-9	TMW-13	Water	02/06/25 13:00	02/07/25 11:39
820-17361-10	TMW-18	Water	02/06/25 13:51	02/07/25 11:39
820-17361-11	TMW-15	Water	02/06/25 14:16	02/07/25 11:39
820-17361-12	TMW-14	Water	02/06/25 15:03	02/07/25 11:39

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

Loc: 820
17361

Released to Imaging: 5/1/2025 8:12:23 AM



Laboratory: Xenco
Address: 6701 Aberdeen
Lubbock, Texas 79424
Phone: (806) 707-0744
Contact:

Office Location
LubbockProject Manager
Jack KirkpatrickSampler's Name
Jack KirkpatrickSampler's Signature

Project Number		Project Name		Identifying Marks of Sample(s)		No. Type of Containers		ANALYSIS REQUESTED		CHAIN OF CUSTODY	
Matrix	Date	Time	Comp	Grab	Start Depth (FT)	End Depth (FT)	1L Poly	Total Dissolved Solids (TDS)	Chloride (EPA Method 300)	TEMP OF COOLER WHEN RECEIVED (°C)	Page 1 of 1
GW	2/6/2025	0837		X			X		X	-1.0/0.2	1
GW	2/6/2025	0900		X			X	X	X	TAI/123	1
GW	2/6/2025	0941		X			X	X	X		1
GW	2/6/2025	1018		X			X	X	X		1
GW	2/6/2025	1105		X			X	X	X		1
GW	2/6/2025	1139		X			X	X	X		1
GW	2/6/2025	1140		X			X	X	X		1
GW	2/6/2025	1235		X			X	X	X		1
GW	2/6/2025	1300		X			X	X	X		1
GW	2/6/2025	1351		X			X	X	X		1
GW	2/6/2025	1416		X			X	X	X		1
GW	2/6/2025	1503		X			X	X	X		1

Matrix Container: WW-Wastewater VOA - 40 ml Vial
W - Water A/G - Amber Glass 1L
S - Soil 250 ml - Glass wide mouth
L - Liquid P/O - Plastic or other Vial
C - Charcoal tube S - Sludge

Lubbock Office ■ 5847 50th Street ■ Lubbock, Texas 79424 ■ 806-300-0140

Responsive ■ Resourceful ■ Reliable

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

Chain of Custody Record

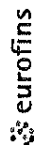
 eurofins

Environment Testing

Client Information (Sub Contract Lab)					
Lab POC	Carrier Tracking No(s)	COC No:			
Kramer Jessica	N/A	820-10349.1			
E-Mail:	State of Origin:	Page:			
Jessica.Kramer@et.eurofins.com	Texas	Page 1 of 2			
Accreditations Required (See note):	Job #:	Preservation Codes:			
NELAP Texas	820-17361-1				
Due Date Requested: 2/13/2025					
TAT Requested (days): N/A					
PO #:	Matrix	Sample Type			
N/A	(Water, Seawater, Other)	(G=Grab, C=Composite)			
WO #:	Project Name:	Sample Time			
N/A	Apache EBDU	2/6/25			
SSOW#:	Site:	Sample Date			
N/A	N/A	2/6/25			
Sample Identification - Client ID (Lab ID)					
TMW-3-HS (820-17361-1)	Central	08:37			
TMW-4 (820-17361-2)	Central	09:00			
TMW-3-LF (820-17361-3)	Central	09:41			
TMW-7 (820-17361-4)	Central	10:18			
TMW-10 (820-17361-5)	Central	11:05			
TMW-6 (820-17361-6)	Central	11:39			
TMW-5-HS (820-17361-7)	Central	11:40			
TMW-5-LF (820-17361-8)	Central	12:35			
TMW-13 (820-17361-9)	Central	13:00			
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.					
Possible Hazard Identification					
Unconfirmed Deliverable Requested: I, II, III, IV Other (specify) Primary Deliverable Rank: 2					
Relinquished by: _____ Date: _____					
Relinquished by: _____ Date: _____					
Custody Seal No. A Yes A No					

Eurofins Lubbock
5701 Aberdeen Ave. Suite 8
Lubbock, TX 79424
Phone: 806-794-1296

Chain of Custody Record



Test ng

[illegible]

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-17361-1

SDG Number: KH247030

Login Number: 17361

List Number: 1

Creator: Guillen, Kyrstin

List Source: Eurofins Lubbock

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

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-17361-1

SDG Number: KH247030

Login Number: 17361

List Number: 2

Creator: Rubio, Yuri

List Source: Eurofins Houston

List Creation: 02/08/25 11:06 AM

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



Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

Attn: John Grams
Terracon Consulting Eng & Scientists
5847 50th St
Lubbock, Texas 79424

Generated 2/14/2025 9:43:54 AM

JOB DESCRIPTION

Apache EBDU
KH247030

JOB NUMBER

820-17319-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

Eurofins Lubbock

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
2/14/2025 9:43:54 AM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Laboratory Job ID: 820-17319-1
SDG: KH247030

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	6
Client Sample Results	8
Surrogate Summary	15
QC Sample Results	16
QC Association Summary	29
Lab Chronicle	33
Certification Summary	36
Method Summary	37
Sample Summary	38
Chain of Custody	39
Receipt Checklists	40

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

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.
U	Indicates the analyte was analyzed for but not detected.

Biology

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Terracon Consulting Eng & Scientists
Project: Apache EBDU

Job ID: 820-17319-1

Job ID: 820-17319-1

Eurofins Lubbock

Job Narrative 820-17319-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 2/5/2025 3:47 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 7.7°C.

GC/MS VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA

Method 625.1_QQQ: The continuing calibration verification (CCV) associated with batch 860-215676 recovered above the upper control limit for 2,4-Dinitrophenol and 2,6-Dinitrotoluene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCVIS 860-215676/2).

Method 625.1_QQQ: Six surrogates are used for this analysis. The laboratory's SOP allows one base and one acid of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: TMW-17-LF (820-17319-5). These results have been reported and qualified.

Method 625.1_QQQ: The surrogate recovery for the blank, laboratory control sample and laboratory control sample duplicate associated with preparation batch 860-215600 and analytical batch 860-215676 was outside the upper control limits.

Method 625.1_QQQ: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 860-215600 and analytical batch 860-215676 recovered outside control limits for the following analytes: Anthracene, Fluorene, Naphthalene, Phenanthrene and Atrazine. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 625.1_QQQ: Surrogate recovery for the following sample was outside the upper control limit: WW-1 (820-17319-6). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PCBs

Method 608.3_PCB: Surrogate recovery for the following sample was outside the upper control limit: WW-1 (820-17319-6). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

Method 300_ORGFM_28D: The following sample was diluted to bring the concentration of target analytes within the calibration range: TMW-17-LF (820-17319-5). Elevated reporting limits (RLs) are provided.

Method 300_ORGFM_28D: The instrument blank/CCB for analytical batch 860-215052 contained Sulfate greater than the reporting limit (RL), and were not reanalyzed because associated sample(s) results were greater than 10X the value found in the CCB. The data have been qualified and reported.

Method 300_ORGFM_28D: The following sample was diluted to bring the concentration of target analytes within the calibration

Eurofins Lubbock

Case Narrative

Client: Terracon Consulting Eng & Scientists
Project: Apache EBDU

Job ID: 820-17319-1

Job ID: 820-17319-1 (Continued)

Eurofins Lubbock

range: TMW-17-HS-T (820-17319-2). Elevated reporting limits (RLs) are provided.

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-215828 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 300_ORGFMS: The following sample was diluted to bring the concentration of target analytes within the calibration range: TMW-17-LF (820-17319-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

Method 200.8 - Total Recoverable: The following sample was diluted to bring the concentration of target analytes within the calibration range: TMW-17-LF (820-17319-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

Method 420.4_NP: The following sample was diluted due to the presence of precipitation that would clog the instrument: TMW-17-LF (820-17319-5). Elevated reporting limits (RL) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Biology

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Lubbock

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Client Sample ID: TMW-2

Lab Sample ID: 820-17319-1

Date Collected: 02/05/25 09:11

Matrix: Water

Date Received: 02/05/25 15:47

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	258		0.500	0.250	mg/L			02/11/25 02:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1250		20.0	20.0	mg/L			02/11/25 07:00	1

Client Sample ID: TMW-17-HS-T

Lab Sample ID: 820-17319-2

Date Collected: 02/05/25 10:00

Matrix: Water

Date Received: 02/05/25 15:47

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3250		5.00	2.50	mg/L			02/11/25 03:12	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	9000		100	100	mg/L			02/11/25 07:00	1

Client Sample ID: TMW-17-HS-M

Lab Sample ID: 820-17319-3

Date Collected: 02/05/25 10:05

Matrix: Water

Date Received: 02/05/25 15:47

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6080		50.0	25.0	mg/L			02/11/25 04:18	100

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	13400		100	100	mg/L			02/11/25 07:00	1

Client Sample ID: TMW-17-HS-B

Lab Sample ID: 820-17319-4

Date Collected: 02/05/25 10:10

Matrix: Water

Date Received: 02/05/25 15:47

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	132000		500	250	mg/L			02/11/25 04:45	1000

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	39000		200	200	mg/L			02/11/25 07:00	1

Client Sample ID: TMW-17-LF

Lab Sample ID: 820-17319-5

Date Collected: 02/05/25 10:32

Matrix: Water

Date Received: 02/05/25 15:47

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.000585	U	0.00500	0.000585	mg/L			02/08/25 04:16	1
1,1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470	mg/L			02/08/25 04:16	1
1,1,2-Trichloroethane	<0.000411	U	0.00100	0.000411	mg/L			02/08/25 04:16	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635	mg/L			02/08/25 04:16	1

Eurofins Lubbock

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Client Sample ID: TMW-17-LF

Lab Sample ID: 820-17319-5

Date Collected: 02/05/25 10:32

Matrix: Water

Date Received: 02/05/25 15:47

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichlorethylene	<0.000738	U	0.00100	0.000738	mg/L			02/08/25 04:16	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175	mg/L			02/08/25 04:16	1
Ethylene Dibromide	<0.000999	U	0.00500	0.000999	mg/L			02/08/25 04:16	1
1,2-Dichlorobenzene	<0.000429	U	0.00100	0.000429	mg/L			02/08/25 04:16	1
1,2-Dichloroethane	<0.000372	U	0.00100	0.000372	mg/L			02/08/25 04:16	1
1,2-Dichloropropane	<0.000556	U	0.00500	0.000556	mg/L			02/08/25 04:16	1
1,4-Dichlorobenzene	<0.000449	U	0.00100	0.000449	mg/L			02/08/25 04:16	1
Benzene	<0.000460	U	0.00100	0.000460	mg/L			02/08/25 04:16	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896	mg/L			02/08/25 04:16	1
Chloroform	<0.000464	U	0.00100	0.000464	mg/L			02/08/25 04:16	1
cis-1,2-Dichloroethene	<0.000457	U	0.00100	0.000457	mg/L			02/08/25 04:16	1
Ethylbenzene	<0.000385	U	0.00100	0.000385	mg/L			02/08/25 04:16	1
m,p-Xylenes	<0.00124	U	0.0100	0.00124	mg/L			02/08/25 04:16	1
Methylene Chloride	0.00263	J	0.00500	0.00173	mg/L			02/08/25 04:16	1
MTBE	<0.00139	U	0.00500	0.00139	mg/L			02/08/25 04:16	1
o-Xylene	<0.000502	U	0.00100	0.000502	mg/L			02/08/25 04:16	1
Styrene	<0.000619	U	0.00100	0.000619	mg/L			02/08/25 04:16	1
Tetrachloroethylene	<0.000655	U	0.00100	0.000655	mg/L			02/08/25 04:16	1
Toluene	<0.000475	U	0.00100	0.000475	mg/L			02/08/25 04:16	1
trans-1,2-Dichloroethene	<0.000368	U	0.00100	0.000368	mg/L			02/08/25 04:16	1
Trichloroethylene (TCE)	<0.00150	U	0.00500	0.00150	mg/L			02/08/25 04:16	1
Vinyl chloride	<0.000428	U	0.00200	0.000428	mg/L			02/08/25 04:16	1
Xylenes, Total	<0.00124	U	0.0100	0.00124	mg/L			02/08/25 04:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		63 - 144		02/08/25 04:16	1
4-Bromofluorobenzene (Surr)	101		74 - 124		02/08/25 04:16	1
Dibromofluoromethane (Surr)	100		75 - 131		02/08/25 04:16	1
Toluene-d8 (Surr)	101		80 - 120		02/08/25 04:16	1

Method: EPA 625.1 - Semivolatile Organic Compounds (GC-MS/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.107	U	0.571	0.107	ug/L		02/10/25 07:47	02/11/25 09:23	1
Acenaphthylene	<0.0996	U	0.571	0.0996	ug/L		02/10/25 07:47	02/11/25 09:23	1
Anthracene	<0.0938	U *	0.571	0.0938	ug/L		02/10/25 07:47	02/11/25 09:23	1
Benzo[a]anthracene	0.0104	J	0.114	0.00953	ug/L		02/10/25 07:47	02/11/25 09:23	1
Benzo[a]pyrene	<0.0100	U	0.114	0.0100	ug/L		02/10/25 07:47	02/11/25 09:23	1
Benzo[b]fluoranthene	<0.0664	U	0.571	0.0664	ug/L		02/10/25 07:47	02/11/25 09:23	1
Benzo[g,h,i]perylene	<0.0345	U	0.571	0.0345	ug/L		02/10/25 07:47	02/11/25 09:23	1
Benzo[k]fluoranthene	<0.0473	U	0.571	0.0473	ug/L		02/10/25 07:47	02/11/25 09:23	1
Chrysene	<0.0815	U	0.571	0.0815	ug/L		02/10/25 07:47	02/11/25 09:23	1
Dibenz(a,h)anthracene	<0.0509	U	0.114	0.0509	ug/L		02/10/25 07:47	02/11/25 09:23	1
Dibenzofuran	<0.107	U	0.571	0.107	ug/L		02/10/25 07:47	02/11/25 09:23	1
Fluoranthene	<0.0883	U	0.571	0.0883	ug/L		02/10/25 07:47	02/11/25 09:23	1
Fluorene	<0.0948	U *	0.571	0.0948	ug/L		02/10/25 07:47	02/11/25 09:23	1
Indeno[1,2,3-cd]pyrene	<0.100	U	0.571	0.100	ug/L		02/10/25 07:47	02/11/25 09:23	1
Naphthalene	<0.0944	U *	0.571	0.0944	ug/L		02/10/25 07:47	02/11/25 09:23	1
Phenanthrene	<0.134	U *	0.571	0.134	ug/L		02/10/25 07:47	02/11/25 09:23	1
Pyrene	<0.0849	U	0.571	0.0849	ug/L		02/10/25 07:47	02/11/25 09:23	1
Atrazine	<0.208	U *	0.571	0.208	ug/L		02/10/25 07:47	02/11/25 09:23	1

Eurofins Lubbock

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Client Sample ID: TMW-17-LF

Lab Sample ID: 820-17319-5

Date Collected: 02/05/25 10:32

Matrix: Water

Date Received: 02/05/25 15:47

Method: EPA 625.1 - Semivolatile Organic Compounds (GC-MS/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	<1.04	U	1.14	1.04	ug/L		02/10/25 07:47	02/11/25 09:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	124		43 - 130	02/10/25 07:47	02/11/25 09:23	1
Nitrobenzene-d5 (Surr)	151	S1+	37 - 133	02/10/25 07:47	02/11/25 09:23	1
p-Terphenyl-d14 (Surr)	106		47 - 130	02/10/25 07:47	02/11/25 09:23	1

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0000517	U	0.000248	0.0000517	mg/L		02/12/25 14:02	02/13/25 13:45	1
PCB-1221	<0.0000517	U	0.000496	0.0000517	mg/L		02/12/25 14:02	02/13/25 13:45	1
PCB-1232	<0.0000517	U	0.000496	0.0000517	mg/L		02/12/25 14:02	02/13/25 13:45	1
PCB-1242	<0.0000517	U	0.000248	0.0000517	mg/L		02/12/25 14:02	02/13/25 13:45	1
PCB-1248	<0.0000517	U	0.000496	0.0000517	mg/L		02/12/25 14:02	02/13/25 13:45	1
PCB-1254	<0.0000650	U	0.000496	0.0000650	mg/L		02/12/25 14:02	02/13/25 13:45	1
PCB-1260	<0.0000650	U	0.000248	0.0000650	mg/L		02/12/25 14:02	02/13/25 13:45	1
Polychlorinated biphenyls, Total	NC		0.000248	0.0000517	mg/L		02/12/25 14:02	02/13/25 13:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	109		52 - 134	02/12/25 14:02	02/13/25 13:45	1
DCB Decachlorobiphenyl (Surr)	58		28 - 94	02/12/25 14:02	02/13/25 13:45	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.20		1.00	0.391	mg/L			02/07/25 04:37	10
Fluoride	1.11	J	5.00	1.00	mg/L			02/07/25 04:37	10
Nitrite as N	<0.699	U	1.00	0.699	mg/L			02/07/25 04:37	10
Sulfate	256	^2	5.00	2.00	mg/L			02/07/25 04:37	10

Method: EPA 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7120		50.0	25.0	mg/L			02/07/25 04:45	100

Method: EPA 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1.90		0.0200	0.00301	mg/L		02/10/25 13:00	02/11/25 15:43	1
Antimony	<0.00105	U	0.00200	0.00105	mg/L		02/10/25 13:00	02/11/25 15:43	1
Arsenic	0.00738		0.00400	0.000929	mg/L		02/10/25 13:00	02/11/25 15:43	1
Barium	0.259		0.00400	0.000954	mg/L		02/10/25 13:00	02/11/25 15:43	1
Beryllium	<0.000375	U	0.00200	0.000375	mg/L		02/10/25 13:00	02/11/25 15:43	1
Boron	0.527		0.100	0.0596	mg/L		02/10/25 13:00	02/11/25 15:48	10
Cadmium	<0.000258	U	0.00200	0.000258	mg/L		02/10/25 13:00	02/11/25 15:43	1
Chromium	0.00325	J	0.00400	0.000890	mg/L		02/10/25 13:00	02/11/25 15:43	1
Cobalt	0.00250		0.00200	0.000264	mg/L		02/10/25 13:00	02/11/25 15:43	1
Copper	0.0134		0.00400	0.000690	mg/L		02/10/25 13:00	02/11/25 15:43	1
Iron	1.36		0.0200	0.00626	mg/L		02/10/25 13:00	02/11/25 15:43	1
Lead	0.000763	J	0.00200	0.000369	mg/L		02/10/25 13:00	02/11/25 15:43	1
Manganese	0.0268		0.00200	0.000525	mg/L		02/10/25 13:00	02/11/25 15:43	1
Molybdenum	0.00108	J	0.00200	0.000504	mg/L		02/10/25 13:00	02/11/25 15:43	1
Nickel	0.0137		0.00200	0.000486	mg/L		02/10/25 13:00	02/11/25 15:43	1
Selenium	0.0606		0.00200	0.000685	mg/L		02/10/25 13:00	02/11/25 15:43	1

Eurofins Lubbock

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Client Sample ID: TMW-17-LF

Lab Sample ID: 820-17319-5

Date Collected: 02/05/25 10:32

Matrix: Water

Date Received: 02/05/25 15:47

Method: EPA 200.8 - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.000351	U	0.00200	0.000351	mg/L		02/10/25 13:00	02/11/25 15:43	1
Thallium	<0.000215	U	0.00200	0.000215	mg/L		02/10/25 13:00	02/11/25 15:43	1
Uranium	0.00595		0.00100	0.000122	mg/L		02/10/25 13:00	02/11/25 15:43	1
Zinc	0.00592		0.00400	0.000885	mg/L		02/10/25 13:00	02/11/25 15:43	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000466		0.000200	0.0000525	mg/L		02/11/25 04:07	02/11/25 16:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total (EPA 420.4)	<0.580	U	1.00	0.580	mg/L			02/11/25 19:02	100
Cyanide, Total (EPA Kelada 01)	<0.00198	U	0.00500	0.00198	mg/L			02/10/25 18:33	1
Total Dissolved Solids (SM 2540C)	13300		100	100	mg/L			02/11/25 07:00	1
pH (SM 4500 H+ B)	7.0	HF			SU			02/09/25 14:24	1
Temperature (SM 4500 H+ B)	17.9	HF			Degrees C			02/09/25 14:24	1

Method: SM 9223B - Coliforms, Total, and E.Coli (Presence/Absence)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Escherichia coli	ABSENT	U			NONE			02/06/25 12:28	1
Coliform, Total	ABSENT	U			NONE			02/06/25 12:28	1

Client Sample ID: WW-1

Lab Sample ID: 820-17319-6

Date Collected: 02/05/25 10:50

Matrix: Water

Date Received: 02/05/25 15:47

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.000585	U	0.00500	0.000585	mg/L			02/08/25 04:37	1
1,1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470	mg/L			02/08/25 04:37	1
1,1,1,2-Trichloroethane	<0.000411	U	0.00100	0.000411	mg/L			02/08/25 04:37	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635	mg/L			02/08/25 04:37	1
1,1-Dichloroethylene	<0.000738	U	0.00100	0.000738	mg/L			02/08/25 04:37	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175	mg/L			02/08/25 04:37	1
Ethylene Dibromide	<0.000999	U	0.00500	0.000999	mg/L			02/08/25 04:37	1
1,2-Dichlorobenzene	<0.000429	U	0.00100	0.000429	mg/L			02/08/25 04:37	1
1,2-Dichloroethane	<0.000372	U	0.00100	0.000372	mg/L			02/08/25 04:37	1
1,2-Dichloropropane	<0.000556	U	0.00500	0.000556	mg/L			02/08/25 04:37	1
1,4-Dichlorobenzene	<0.000449	U	0.00100	0.000449	mg/L			02/08/25 04:37	1
Benzene	<0.000460	U	0.00100	0.000460	mg/L			02/08/25 04:37	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896	mg/L			02/08/25 04:37	1
Chloroform	<0.000464	U	0.00100	0.000464	mg/L			02/08/25 04:37	1
cis-1,2-Dichloroethene	<0.000457	U	0.00100	0.000457	mg/L			02/08/25 04:37	1
Ethylbenzene	<0.000385	U	0.00100	0.000385	mg/L			02/08/25 04:37	1
m,p-Xylenes	<0.00124	U	0.0100	0.00124	mg/L			02/08/25 04:37	1
Methylene Chloride	<0.00173	U	0.00500	0.00173	mg/L			02/08/25 04:37	1
MTBE	<0.00139	U	0.00500	0.00139	mg/L			02/08/25 04:37	1
o-Xylene	<0.000502	U	0.00100	0.000502	mg/L			02/08/25 04:37	1
Styrene	<0.000619	U	0.00100	0.000619	mg/L			02/08/25 04:37	1
Tetrachloroethylene	<0.000655	U	0.00100	0.000655	mg/L			02/08/25 04:37	1
Toluene	<0.000475	U	0.00100	0.000475	mg/L			02/08/25 04:37	1

Eurofins Lubbock

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Client Sample ID: WW-1

Lab Sample ID: 820-17319-6

Date Collected: 02/05/25 10:50

Matrix: Water

Date Received: 02/05/25 15:47

Method: EPA 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	<0.000368	U	0.00100	0.000368	mg/L			02/08/25 04:37	1
Trichloroethylene (TCE)	<0.00150	U	0.00500	0.00150	mg/L			02/08/25 04:37	1
Vinyl chloride	<0.000428	U	0.00200	0.000428	mg/L			02/08/25 04:37	1
Xylenes, Total	<0.00124	U	0.0100	0.00124	mg/L			02/08/25 04:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		63 - 144		02/08/25 04:37	1
4-Bromofluorobenzene (Surr)	101		74 - 124		02/08/25 04:37	1
Dibromofluoromethane (Surr)	100		75 - 131		02/08/25 04:37	1
Toluene-d8 (Surr)	101		80 - 120		02/08/25 04:37	1

Method: EPA 625.1 - Semivolatile Organic Compounds (GC-MS/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.107	U	0.569	0.107	ug/L		02/10/25 07:47	02/11/25 11:48	1
Acenaphthylene	<0.0992	U	0.569	0.0992	ug/L		02/10/25 07:47	02/11/25 11:48	1
Anthracene	<0.0934	U **	0.569	0.0934	ug/L		02/10/25 07:47	02/11/25 11:48	1
Benzo[a]anthracene	0.0160	J	0.114	0.00949	ug/L		02/10/25 07:47	02/11/25 11:48	1
Benzo[a]pyrene	<0.00996	U	0.114	0.00996	ug/L		02/10/25 07:47	02/11/25 11:48	1
Benzo[b]fluoranthene	<0.0661	U	0.569	0.0661	ug/L		02/10/25 07:47	02/11/25 11:48	1
Benzo[g,h,i]perylene	<0.0344	U	0.569	0.0344	ug/L		02/10/25 07:47	02/11/25 11:48	1
Benzo[k]fluoranthene	<0.0470	U	0.569	0.0470	ug/L		02/10/25 07:47	02/11/25 11:48	1
Chrysene	<0.0812	U	0.569	0.0812	ug/L		02/10/25 07:47	02/11/25 11:48	1
Dibenz(a,h)anthracene	<0.0507	U	0.114	0.0507	ug/L		02/10/25 07:47	02/11/25 11:48	1
Dibenzofuran	<0.106	U	0.569	0.106	ug/L		02/10/25 07:47	02/11/25 11:48	1
Fluoranthene	<0.0879	U	0.569	0.0879	ug/L		02/10/25 07:47	02/11/25 11:48	1
Fluorene	<0.0944	U **	0.569	0.0944	ug/L		02/10/25 07:47	02/11/25 11:48	1
Indeno[1,2,3-cd]pyrene	<0.0996	U	0.569	0.0996	ug/L		02/10/25 07:47	02/11/25 11:48	1
Naphthalene	<0.0940	U **	0.569	0.0940	ug/L		02/10/25 07:47	02/11/25 11:48	1
Phenanthrene	<0.133	U **	0.569	0.133	ug/L		02/10/25 07:47	02/11/25 11:48	1
Pyrene	<0.0845	U	0.569	0.0845	ug/L		02/10/25 07:47	02/11/25 11:48	1
Atrazine	<0.207	U **	0.569	0.207	ug/L		02/10/25 07:47	02/11/25 11:48	1
Pentachlorophenol	<1.03	U	1.14	1.03	ug/L		02/10/25 07:47	02/11/25 11:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	188	S1+	43 - 130	02/10/25 07:47	02/11/25 11:48	1
Nitrobenzene-d5 (Surr)	216	S1+	37 - 133	02/10/25 07:47	02/11/25 11:48	1
p-Terphenyl-d14 (Surr)	141	S1+	47 - 130	02/10/25 07:47	02/11/25 11:48	1

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0000524	U	0.000252	0.0000524	mg/L		02/12/25 14:02	02/13/25 13:56	1
PCB-1221	<0.0000524	U	0.000503	0.0000524	mg/L		02/12/25 14:02	02/13/25 13:56	1
PCB-1232	<0.0000524	U	0.000503	0.0000524	mg/L		02/12/25 14:02	02/13/25 13:56	1
PCB-1242	<0.0000524	U	0.000252	0.0000524	mg/L		02/12/25 14:02	02/13/25 13:56	1
PCB-1248	<0.0000524	U	0.000503	0.0000524	mg/L		02/12/25 14:02	02/13/25 13:56	1
PCB-1254	<0.0000659	U	0.000503	0.0000659	mg/L		02/12/25 14:02	02/13/25 13:56	1
PCB-1260	<0.0000659	U	0.000252	0.0000659	mg/L		02/12/25 14:02	02/13/25 13:56	1
Polychlorinated biphenyls, Total	NC		0.000252	0.0000524	mg/L		02/12/25 14:02	02/13/25 13:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	112		52 - 134	02/12/25 14:02	02/13/25 13:56	1

Eurofins Lubbock

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Client Sample ID: WW-1

Lab Sample ID: 820-17319-6

Date Collected: 02/05/25 10:50

Matrix: Water

Date Received: 02/05/25 15:47

Method: EPA 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	95	S1+	28 - 94	02/12/25 14:02	02/13/25 13:56	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	486		0.500	0.250	mg/L			02/07/25 04:52	1
Nitrate as N	2.51		0.100	0.0391	mg/L			02/07/25 04:52	1
Fluoride	0.491	J	0.500	0.100	mg/L			02/07/25 04:52	1
Nitrite as N	<0.0699	U	0.100	0.0699	mg/L			02/07/25 04:52	1
Sulfate	53.4	^2	0.500	0.200	mg/L			02/07/25 04:52	1

Method: EPA 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.00301	U	0.0200	0.00301	mg/L		02/10/25 13:00	02/11/25 15:45	1
Antimony	<0.00105	U	0.00200	0.00105	mg/L		02/10/25 13:00	02/11/25 15:45	1
Arsenic	0.00289	J	0.00400	0.000929	mg/L		02/10/25 13:00	02/11/25 15:45	1
Barium	0.241		0.00400	0.000954	mg/L		02/10/25 13:00	02/11/25 15:45	1
Beryllium	<0.000375	U	0.00200	0.000375	mg/L		02/10/25 13:00	02/11/25 15:45	1
Boron	0.155		0.0100	0.00596	mg/L		02/10/25 13:00	02/11/25 15:45	1
Cadmium	<0.000258	U	0.00200	0.000258	mg/L		02/10/25 13:00	02/11/25 15:45	1
Chromium	<0.000890	U	0.00400	0.000890	mg/L		02/10/25 13:00	02/11/25 15:45	1
Cobalt	0.000305	J	0.00200	0.000264	mg/L		02/10/25 13:00	02/11/25 15:45	1
Copper	0.00451		0.00400	0.000690	mg/L		02/10/25 13:00	02/11/25 15:45	1
Iron	<0.00626	U	0.0200	0.00626	mg/L		02/10/25 13:00	02/11/25 15:45	1
Lead	<0.000369	U	0.00200	0.000369	mg/L		02/10/25 13:00	02/11/25 15:45	1
Manganese	<0.000525	U	0.00200	0.000525	mg/L		02/10/25 13:00	02/11/25 15:45	1
Molybdenum	0.000605	J	0.00200	0.000504	mg/L		02/10/25 13:00	02/11/25 15:45	1
Nickel	0.00256		0.00200	0.000486	mg/L		02/10/25 13:00	02/11/25 15:45	1
Selenium	0.00517		0.00200	0.000685	mg/L		02/10/25 13:00	02/11/25 15:45	1
Silver	<0.000351	U	0.00200	0.000351	mg/L		02/10/25 13:00	02/11/25 15:45	1
Thallium	<0.000215	U	0.00200	0.000215	mg/L		02/10/25 13:00	02/11/25 15:45	1
Uranium	0.00310		0.00100	0.000122	mg/L		02/10/25 13:00	02/11/25 15:45	1
Zinc	0.00534		0.00400	0.000885	mg/L		02/10/25 13:00	02/11/25 15:45	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000940	J	0.000200	0.0000525	mg/L		02/11/25 04:07	02/11/25 16:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total (EPA 420.4)	<0.00580	U	0.0100	0.00580	mg/L			02/11/25 18:59	1
Cyanide, Total (EPA Kelada 01)	<0.00198	U	0.00500	0.00198	mg/L			02/10/25 18:48	1
Total Dissolved Solids (SM 2540C)	1900		20.0	20.0	mg/L			02/11/25 07:00	1
pH (SM 4500 H+ B)	7.3	HF			SU			02/09/25 14:26	1
Temperature (SM 4500 H+ B)	17.9	HF			Degrees C			02/09/25 14:26	1

Method: SM 9223B - Coliforms, Total, and E.Coli (Presence/Absence)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Escherichia coli	ABSENT	U			NONE			02/06/25 12:28	1
Coliform, Total	ABSENT	U			NONE			02/06/25 12:28	1

Eurofins Lubbock

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Client Sample ID: DUP-1
Date Collected: 02/05/25 00:00
Date Received: 02/05/25 15:47

Lab Sample ID: 820-17319-7
Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6980		50.0	25.0	mg/L			02/11/25 05:11	100

Client Sample ID: DUP-2
Date Collected: 02/05/25 00:00
Date Received: 02/05/25 15:47

Lab Sample ID: 820-17319-8
Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	523		5.00	2.50	mg/L			02/11/25 05:38	10

Surrogate Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-120)
820-17319-5	TMW-17-LF	105	101	100	101
820-17319-6	WW-1	103	101	100	101
LCS 860-215421/1012	Lab Control Sample	98	101	99	101
LCSD 860-215421/13	Lab Control Sample Dup	96	101	99	98
MB 860-215421/16	Method Blank	103	102	99	101
Surrogate Legend					
DCA = 1,2-Dichloroethane-d4 (Surr)					
BFB = 4-Bromofluorobenzene (Surr)					
DBFM = Dibromofluoromethane (Surr)					
TOL = Toluene-d8 (Surr)					

Method: 625.1 - Semivolatile Organic Compounds (GC-MS/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (43-130)	NBZ (37-133)	TPHd14 (47-130)
820-17319-5	TMW-17-LF	124	151 S1+	106
820-17319-6	WW-1	188 S1+	216 S1+	141 S1+
LCS 860-215600/2-A	Lab Control Sample	122	141 S1+	129
LCSD 860-215600/3-A	Lab Control Sample Dup	127	139 S1+	127
MB 860-215600/1-A	Method Blank	136 S1+	150 S1+	132 S1+
Surrogate Legend				
FBP = 2-Fluorobiphenyl				
NBZ = Nitrobenzene-d5 (Surr)				
TPHd14 = p-Terphenyl-d14 (Surr)				

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX1 (52-134)	DCB1 (28-94)
820-17319-5	TMW-17-LF	109	58
820-17319-6	WW-1	112	95 S1+
LCS 860-216304/4-A	Lab Control Sample	104	66
LCSD 860-216304/5-A	Lab Control Sample Dup	104	67
MB 860-216304/1-A	Method Blank	103	74
Surrogate Legend			
TCX = Tetrachloro-m-xylene (Surr)			
DCB = DCB Decachlorobiphenyl (Surr)			

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 860-215421/16

Matrix: Water

Analysis Batch: 215421

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.000585	U	0.00500	0.000585	mg/L			02/08/25 02:13	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470	mg/L			02/08/25 02:13	1
1,1,2-Trichloroethane	<0.000411	U	0.00100	0.000411	mg/L			02/08/25 02:13	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635	mg/L			02/08/25 02:13	1
1,1-Dichloroethylene	<0.000738	U	0.00100	0.000738	mg/L			02/08/25 02:13	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175	mg/L			02/08/25 02:13	1
Ethylene Dibromide	<0.000999	U	0.00500	0.000999	mg/L			02/08/25 02:13	1
1,2-Dichlorobenzene	<0.000429	U	0.00100	0.000429	mg/L			02/08/25 02:13	1
1,2-Dichloroethane	<0.000372	U	0.00100	0.000372	mg/L			02/08/25 02:13	1
1,2-Dichloropropane	<0.000556	U	0.00500	0.000556	mg/L			02/08/25 02:13	1
1,4-Dichlorobenzene	<0.000449	U	0.00100	0.000449	mg/L			02/08/25 02:13	1
Benzene	<0.000460	U	0.00100	0.000460	mg/L			02/08/25 02:13	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896	mg/L			02/08/25 02:13	1
Chloroform	<0.000464	U	0.00100	0.000464	mg/L			02/08/25 02:13	1
cis-1,2-Dichloroethene	<0.000457	U	0.00100	0.000457	mg/L			02/08/25 02:13	1
Ethylbenzene	<0.000385	U	0.00100	0.000385	mg/L			02/08/25 02:13	1
m,p-Xylenes	<0.00124	U	0.0100	0.00124	mg/L			02/08/25 02:13	1
Methylene Chloride	<0.00173	U	0.00500	0.00173	mg/L			02/08/25 02:13	1
MTBE	<0.00139	U	0.00500	0.00139	mg/L			02/08/25 02:13	1
o-Xylene	<0.000502	U	0.00100	0.000502	mg/L			02/08/25 02:13	1
Styrene	<0.000619	U	0.00100	0.000619	mg/L			02/08/25 02:13	1
Tetrachloroethylene	<0.000655	U	0.00100	0.000655	mg/L			02/08/25 02:13	1
Toluene	<0.000475	U	0.00100	0.000475	mg/L			02/08/25 02:13	1
trans-1,2-Dichloroethene	<0.000368	U	0.00100	0.000368	mg/L			02/08/25 02:13	1
Trichloroethylene (TCE)	<0.00150	U	0.00500	0.00150	mg/L			02/08/25 02:13	1
Vinyl chloride	<0.000428	U	0.00200	0.000428	mg/L			02/08/25 02:13	1
Xylenes, Total	<0.00124	U	0.0100	0.00124	mg/L			02/08/25 02:13	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		63 - 144					02/08/25 02:13	1
4-Bromofluorobenzene (Surr)	102		74 - 124					02/08/25 02:13	1
Dibromofluoromethane (Surr)	99		75 - 131					02/08/25 02:13	1
Toluene-d8 (Surr)	101		80 - 120					02/08/25 02:13	1

Lab Sample ID: LCS 860-215421/1012

Matrix: Water

Analysis Batch: 215421

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	0.0500	0.05431		mg/L		109	70 - 130
1,1,2,2-Tetrachloroethane	0.0500	0.04849		mg/L		97	74 - 125
1,1,2-Trichloroethane	0.0500	0.05357		mg/L		107	75 - 130
1,1-Dichloroethane	0.0500	0.05511		mg/L		110	71 - 130
1,1-Dichloroethylene	0.0500	0.05422		mg/L		108	50 - 150
1,2,4-Trichlorobenzene	0.0500	0.05264		mg/L		105	75 - 135
Ethylene Dibromide	0.0500	0.05295		mg/L		106	73 - 125
1,2-Dichlorobenzene	0.0500	0.05294		mg/L		106	75 - 125
1,2-Dichloroethane	0.0500	0.05296		mg/L		106	72 - 130

Eurofins Lubbock

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 860-215421/1012

Matrix: Water

Analysis Batch: 215421

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloropropane	0.0500	0.05513		mg/L		110	74 - 125
1,4-Dichlorobenzene	0.0500	0.05218		mg/L		104	75 - 125
Benzene	0.0500	0.05420		mg/L		108	75 - 125
Carbon tetrachloride	0.0500	0.05255		mg/L		105	70 - 125
Chloroform	0.0500	0.05257		mg/L		105	70 - 121
cis-1,2-Dichloroethene	0.0500	0.05266		mg/L		105	75 - 125
Ethylbenzene	0.0500	0.05328		mg/L		107	75 - 125
m,p-Xylenes	0.0500	0.05345		mg/L		107	75 - 125
Methylene Chloride	0.0500	0.04894		mg/L		98	71 - 125
MTBE	0.0500	0.05200		mg/L		104	65 - 135
o-Xylene	0.0500	0.05308		mg/L		106	75 - 125
Styrene	0.0500	0.05366		mg/L		107	75 - 125
Tetrachloroethylene	0.0500	0.05433		mg/L		109	71 - 125
Toluene	0.0500	0.05357		mg/L		107	75 - 130
trans-1,2-Dichloroethene	0.0500	0.05382		mg/L		108	75 - 125
Trichloroethylene (TCE)	0.0500	0.05612		mg/L		112	75 - 135
Vinyl chloride	0.0500	0.05084		mg/L		102	60 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		63 - 144
4-Bromofluorobenzene (Surr)	101		74 - 124
Dibromofluoromethane (Surr)	99		75 - 131
Toluene-d8 (Surr)	101		80 - 120

Lab Sample ID: LCSD 860-215421/13

Matrix: Water

Analysis Batch: 215421

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.0500	0.05445		mg/L		109	70 - 130	0	25
1,1,1,2-Tetrachloroethane	0.0500	0.04919		mg/L		98	74 - 125	1	25
1,1,2-Trichloroethane	0.0500	0.05330		mg/L		107	75 - 130	0	25
1,1-Dichloroethane	0.0500	0.05396		mg/L		108	71 - 130	2	25
1,1-Dichloroethylene	0.0500	0.05540		mg/L		111	50 - 150	2	25
1,2,4-Trichlorobenzene	0.0500	0.05453		mg/L		109	75 - 135	4	25
Ethylene Dibromide	0.0500	0.05227		mg/L		105	73 - 125	1	25
1,2-Dichlorobenzene	0.0500	0.05363		mg/L		107	75 - 125	1	25
1,2-Dichloroethane	0.0500	0.05280		mg/L		106	72 - 130	0	25
1,2-Dichloropropane	0.0500	0.05496		mg/L		110	74 - 125	0	25
1,4-Dichlorobenzene	0.0500	0.05255		mg/L		105	75 - 125	1	25
Benzene	0.0500	0.05382		mg/L		108	75 - 125	1	25
Carbon tetrachloride	0.0500	0.05328		mg/L		107	70 - 125	1	25
Chloroform	0.0500	0.05301		mg/L		106	70 - 121	1	25
cis-1,2-Dichloroethene	0.0500	0.05345		mg/L		107	75 - 125	1	25
Ethylbenzene	0.0500	0.05371		mg/L		107	75 - 125	1	25
m,p-Xylenes	0.0500	0.05325		mg/L		107	75 - 125	0	25
Methylene Chloride	0.0500	0.04892		mg/L		98	71 - 125	0	25
MTBE	0.0500	0.05277		mg/L		106	65 - 135	1	25

Eurofins Lubbock

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 860-215421/13

Matrix: Water

Analysis Batch: 215421

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
o-Xylene	0.0500	0.05288		mg/L		106	75 - 125	0	25
Styrene	0.0500	0.05335		mg/L		107	75 - 125	1	25
Tetrachloroethylene	0.0500	0.05448		mg/L		109	71 - 125	0	25
Toluene	0.0500	0.05336		mg/L		107	75 - 130	0	25
trans-1,2-Dichloroethene	0.0500	0.05558		mg/L		111	75 - 125	3	25
Trichloroethylene (TCE)	0.0500	0.05675		mg/L		113	75 - 135	1	25
Vinyl chloride	0.0500	0.05154		mg/L		103	60 - 140	1	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		63 - 144
4-Bromofluorobenzene (Surr)	101		74 - 124
Dibromofluoromethane (Surr)	99		75 - 131
Toluene-d8 (Surr)	98		80 - 120

Method: 625.1 - Semivolatile Organic Compounds (GC-MS/MS)

Lab Sample ID: MB 860-215600/1-A

Matrix: Water

Analysis Batch: 215676

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 215600

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.107	U	0.571	0.107	ug/L		02/10/25 07:47	02/10/25 20:21	1
Acenaphthylene	<0.0996	U	0.571	0.0996	ug/L		02/10/25 07:47	02/10/25 20:21	1
Anthracene	<0.0938	U	0.571	0.0938	ug/L		02/10/25 07:47	02/10/25 20:21	1
Benzo[a]anthracene	<0.00953	U	0.114	0.00953	ug/L		02/10/25 07:47	02/10/25 20:21	1
Benzo[a]pyrene	<0.0100	U	0.114	0.0100	ug/L		02/10/25 07:47	02/10/25 20:21	1
Benzo[b]fluoranthene	<0.0664	U	0.571	0.0664	ug/L		02/10/25 07:47	02/10/25 20:21	1
Benzo[g,h,i]perylene	<0.0345	U	0.571	0.0345	ug/L		02/10/25 07:47	02/10/25 20:21	1
Benzo[k]fluoranthene	<0.0473	U	0.571	0.0473	ug/L		02/10/25 07:47	02/10/25 20:21	1
Chrysene	<0.0815	U	0.571	0.0815	ug/L		02/10/25 07:47	02/10/25 20:21	1
Dibenz(a,h)anthracene	<0.0509	U	0.114	0.0509	ug/L		02/10/25 07:47	02/10/25 20:21	1
Dibenzofuran	<0.107	U	0.571	0.107	ug/L		02/10/25 07:47	02/10/25 20:21	1
Fluoranthene	<0.0883	U	0.571	0.0883	ug/L		02/10/25 07:47	02/10/25 20:21	1
Fluorene	<0.0948	U	0.571	0.0948	ug/L		02/10/25 07:47	02/10/25 20:21	1
Indeno[1,2,3-cd]pyrene	<0.100	U	0.571	0.100	ug/L		02/10/25 07:47	02/10/25 20:21	1
Naphthalene	<0.0944	U	0.571	0.0944	ug/L		02/10/25 07:47	02/10/25 20:21	1
Phenanthrene	<0.134	U	0.571	0.134	ug/L		02/10/25 07:47	02/10/25 20:21	1
Pyrene	<0.0849	U	0.571	0.0849	ug/L		02/10/25 07:47	02/10/25 20:21	1
Atrazine	<0.208	U	0.571	0.208	ug/L		02/10/25 07:47	02/10/25 20:21	1
Pentachlorophenol	<1.04	U	1.14	1.04	ug/L		02/10/25 07:47	02/10/25 20:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	136	S1+	43 - 130	02/10/25 07:47	02/10/25 20:21	1
Nitrobenzene-d5 (Surr)	150	S1+	37 - 133	02/10/25 07:47	02/10/25 20:21	1
p-Terphenyl-d14 (Surr)	132	S1+	47 - 130	02/10/25 07:47	02/10/25 20:21	1

Eurofins Lubbock

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Method: 625.1 - Semivolatile Organic Compounds (GC-MS/MS) (Continued)

Lab Sample ID: LCS 860-215600/2-A

Matrix: Water

Analysis Batch: 215676

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 215600

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Acenaphthene	5.71	6.143		ug/L		108	60 - 132	
Acenaphthylene	5.71	6.806		ug/L		119	54 - 126	
Anthracene	5.71	7.139	*+	ug/L		125	43 - 120	
Benzo[a]anthracene	5.71	6.759		ug/L		118	42 - 133	
Benzo[a]pyrene	5.71	6.475		ug/L		113	32 - 148	
Benzo[b]fluoranthene	5.71	6.360		ug/L		111	42 - 140	
Benzo[g,h,i]perylene	5.71	6.363		ug/L		111	25 - 195	
Benzo[k]fluoranthene	5.71	6.875		ug/L		120	25 - 146	
Chrysene	5.71	6.373		ug/L		112	47 - 130	
Dibenz(a,h)anthracene	5.71	6.811		ug/L		119	32 - 200	
Dibenzofuran	5.71	7.184		ug/L		126	48 - 130	
Fluoranthene	5.71	6.571		ug/L		115	43 - 121	
Fluorene	5.71	6.939	*+	ug/L		121	70 - 120	
Indeno[1,2,3-cd]pyrene	5.71	6.680		ug/L		117	29 - 151	
Naphthalene	5.71	7.027	*+	ug/L		123	36 - 120	
Phenanthrene	5.71	6.693		ug/L		117	65 - 120	
Pyrene	5.71	6.870		ug/L		120	70 - 120	
Atrazine	5.71	7.241		ug/L		127	70 - 130	
Pentachlorophenol	5.71	7.919		ug/L		139	38 - 152	

Surrogate	LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	122		43 - 130
Nitrobenzene-d5 (Surr)	141	S1+	37 - 133
p-Terphenyl-d14 (Surr)	129		47 - 130

Lab Sample ID: LCSD 860-215600/3-A

Matrix: Water

Analysis Batch: 215676

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 215600

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	
							Limits		RPD	Limit
Acenaphthene	5.71	6.272		ug/L		110	60 - 132		2	29
Acenaphthylene	5.71	6.795		ug/L		119	54 - 126		0	30
Anthracene	5.71	7.277	*+	ug/L		127	43 - 120		2	30
Benzo[a]anthracene	5.71	6.662		ug/L		117	42 - 133		1	30
Benzo[a]pyrene	5.71	6.288		ug/L		110	32 - 148		3	30
Benzo[b]fluoranthene	5.71	6.257		ug/L		110	42 - 140		2	30
Benzo[g,h,i]perylene	5.71	6.245		ug/L		109	25 - 195		2	30
Benzo[k]fluoranthene	5.71	6.687		ug/L		117	25 - 146		3	30
Chrysene	5.71	6.252		ug/L		109	47 - 130		2	30
Dibenz(a,h)anthracene	5.71	6.740		ug/L		118	32 - 200		1	30
Dibenzofuran	5.71	7.370		ug/L		129	48 - 130		3	30
Fluoranthene	5.71	6.735		ug/L		118	43 - 121		2	30
Fluorene	5.71	7.154	*+	ug/L		125	70 - 120		3	23
Indeno[1,2,3-cd]pyrene	5.71	6.439		ug/L		113	29 - 151		4	30
Naphthalene	5.71	7.050	*+	ug/L		123	36 - 120		0	30
Phenanthrene	5.71	6.968	*+	ug/L		122	65 - 120		4	24
Pyrene	5.71	6.885		ug/L		120	70 - 120		0	30
Atrazine	5.71	7.491	*+	ug/L		131	70 - 130		3	30

Eurofins Lubbock

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Method: 625.1 - Semivolatile Organic Compounds (GC-MS/MS) (Continued)

Lab Sample ID: LCSD 860-215600/3-A

Matrix: Water

Analysis Batch: 215676

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 215600

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Pentachlorophenol	5.71	7.447		ug/L		130	38 - 152	6	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
2-Fluorobiphenyl	127		43 - 130						
Nitrobenzene-d5 (Surr)	139	S1+	37 - 133						
p-Terphenyl-d14 (Surr)	127		47 - 130						

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 860-216304/1-A

Matrix: Water

Analysis Batch: 216423

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 216304

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.0000521	U	0.000250	0.0000521	mg/L		02/12/25 14:02	02/13/25 10:34	1
PCB-1221	<0.0000521	U	0.000500	0.0000521	mg/L		02/12/25 14:02	02/13/25 10:34	1
PCB-1232	<0.0000521	U	0.000500	0.0000521	mg/L		02/12/25 14:02	02/13/25 10:34	1
PCB-1242	<0.0000521	U	0.000250	0.0000521	mg/L		02/12/25 14:02	02/13/25 10:34	1
PCB-1248	<0.0000521	U	0.000500	0.0000521	mg/L		02/12/25 14:02	02/13/25 10:34	1
PCB-1254	<0.0000655	U	0.000500	0.0000655	mg/L		02/12/25 14:02	02/13/25 10:34	1
PCB-1260	<0.0000655	U	0.000250	0.0000655	mg/L		02/12/25 14:02	02/13/25 10:34	1
Polychlorinated biphenyls, Total	NC		0.000250	0.0000521	mg/L		02/12/25 14:02	02/13/25 10:34	1
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr)	103		52 - 134				02/12/25 14:02	02/13/25 10:34	1
DCB Decachlorobiphenyl (Surr)	74		28 - 94				02/12/25 14:02	02/13/25 10:34	1

Lab Sample ID: LCS 860-216304/4-A

Matrix: Water

Analysis Batch: 216423

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 216304

Analyte			Spike	LCS	LCS	Unit	D	%Rec	%Rec		
			Added	Result	Qualifier			Limits			
PCB-1016			0.00500	0.006345		mg/L		127	50 - 140		
PCB-1260			0.00500	0.005612		mg/L		112	37 - 130		

Lab Sample ID: LCSD 860-216304/5-A

Matrix: Water

Analysis Batch: 216423

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 216304

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	0.00489	0.006250		mg/L		128	50 - 140	2	30
PCB-1260	0.00489	0.005532		mg/L		113	37 - 130	1	30

Eurofins Lubbock

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCSD 860-216304/5-A

Matrix: Water

Analysis Batch: 216423

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 216304

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene (Surr)	104		52 - 134
DCB Decachlorobiphenyl (Surr)	67		28 - 94

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-215051/3

Matrix: Water

Analysis Batch: 215051

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Nitrate as N	<0.0391	U	0.100	0.0391	mg/L			02/06/25 12:11	1
Nitrite as N	<0.0699	U	0.100	0.0699	mg/L			02/06/25 12:11	1

Lab Sample ID: MB 860-215051/57

Matrix: Water

Analysis Batch: 215051

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Nitrate as N	<0.0391	U	0.100	0.0391	mg/L			02/06/25 22:12	1
Nitrite as N	<0.0699	U	0.100	0.0699	mg/L			02/06/25 22:12	1

Lab Sample ID: LCS 860-215051/58

Matrix: Water

Analysis Batch: 215051

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec	
		Result	Qualifier				Limits	
Nitrate as N	10.0	10.46		mg/L		105	90 - 110	
Nitrite as N	10.0	10.22		mg/L		102	90 - 110	

Lab Sample ID: LCSD 860-215051/59

Matrix: Water

Analysis Batch: 215051

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec		RPD	
		Result	Qualifier				Limits		RPD	Limit
Nitrate as N	10.0	10.30		mg/L		103	90 - 110		2	20
Nitrite as N	10.0	10.03		mg/L		100	90 - 110		2	20

Lab Sample ID: LLCS 860-215051/6

Matrix: Water

Analysis Batch: 215051

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS LLCS		Unit	D	%Rec	%Rec	
		Result	Qualifier				Limits	
Nitrate as N	0.100	0.1142		mg/L		114	50 - 150	
Nitrite as N	0.100	0.1212		mg/L		121	50 - 150	

Eurofins Lubbock

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 860-215052/3

Matrix: Water

Analysis Batch: 215052

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U	0.500	0.250	mg/L			02/06/25 12:11	1
Fluoride	<0.100	U	0.500	0.100	mg/L			02/06/25 12:11	1
Sulfate	<0.200	U	0.500	0.200	mg/L			02/06/25 12:11	1

Lab Sample ID: MB 860-215052/57

Matrix: Water

Analysis Batch: 215052

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U	0.500	0.250	mg/L			02/06/25 22:12	1
Fluoride	<0.100	U	0.500	0.100	mg/L			02/06/25 22:12	1
Sulfate	<0.200	U	0.500	0.200	mg/L			02/06/25 22:12	1

Lab Sample ID: LCS 860-215052/58

Matrix: Water

Analysis Batch: 215052

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.62		mg/L		106	90 - 110
Fluoride	10.0	9.886		mg/L		99	90 - 110
Sulfate	10.0	10.55		mg/L		106	90 - 110

Lab Sample ID: LCSD 860-215052/59

Matrix: Water

Analysis Batch: 215052

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.30		mg/L		103	90 - 110	3	20
Fluoride	10.0	9.758		mg/L		98	90 - 110	1	20
Sulfate	10.0	10.26		mg/L		103	90 - 110	3	20

Lab Sample ID: LLCS 860-215052/7

Matrix: Water

Analysis Batch: 215052

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.6014		mg/L		120	50 - 150
Fluoride	0.500	0.5848		mg/L		117	50 - 150
Sulfate	0.500	0.5979		mg/L		120	50 - 150

Lab Sample ID: MB 860-215828/3

Matrix: Water

Analysis Batch: 215828

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U	0.500	0.250	mg/L			02/10/25 20:09	1

Eurofins Lubbock

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 860-215828/4

Matrix: Water

Analysis Batch: 215828

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.19		mg/L		102	90 - 110

Lab Sample ID: LCSD 860-215828/5

Matrix: Water

Analysis Batch: 215828

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.08		mg/L		101	90 - 110	1	20

Lab Sample ID: LLCS 860-215828/7

Matrix: Water

Analysis Batch: 215828

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.6053		mg/L		121	50 - 150

Lab Sample ID: 820-17319-1 MS

Matrix: Water

Analysis Batch: 215828

Client Sample ID: TMW-2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	258		10.0	264.6	4	mg/L		64	90 - 110

Lab Sample ID: 820-17319-1 MSD

Matrix: Water

Analysis Batch: 215828

Client Sample ID: TMW-2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	258		10.0	265.0	4	mg/L		68	90 - 110	0	15

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 860-215720/1-A

Matrix: Water

Analysis Batch: 216084

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 215720

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.00301	U	0.0200	0.00301	mg/L		02/10/25 13:00	02/11/25 15:02	1
Antimony	<0.00105	U	0.00200	0.00105	mg/L		02/10/25 13:00	02/11/25 15:02	1
Arsenic	<0.000929	U	0.00400	0.000929	mg/L		02/10/25 13:00	02/11/25 15:02	1
Barium	<0.000954	U	0.00400	0.000954	mg/L		02/10/25 13:00	02/11/25 15:02	1
Beryllium	<0.000375	U	0.00200	0.000375	mg/L		02/10/25 13:00	02/11/25 15:02	1
Boron	<0.00596	U	0.0100	0.00596	mg/L		02/10/25 13:00	02/11/25 15:02	1
Cadmium	<0.000258	U	0.00200	0.000258	mg/L		02/10/25 13:00	02/11/25 15:02	1
Chromium	<0.000890	U	0.00400	0.000890	mg/L		02/10/25 13:00	02/11/25 15:02	1
Cobalt	<0.000264	U	0.00200	0.000264	mg/L		02/10/25 13:00	02/11/25 15:02	1
Copper	<0.000690	U	0.00400	0.000690	mg/L		02/10/25 13:00	02/11/25 15:02	1
Iron	<0.00626	U	0.0200	0.00626	mg/L		02/10/25 13:00	02/11/25 15:02	1
Lead	<0.000369	U	0.00200	0.000369	mg/L		02/10/25 13:00	02/11/25 15:02	1
Manganese	<0.000525	U	0.00200	0.000525	mg/L		02/10/25 13:00	02/11/25 15:02	1

Eurofins Lubbock

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 860-215720/1-A

Matrix: Water

Analysis Batch: 216084

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 215720

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.000504	U	0.00200	0.000504	mg/L		02/10/25 13:00	02/11/25 15:02	1
Nickel	<0.000486	U	0.00200	0.000486	mg/L		02/10/25 13:00	02/11/25 15:02	1
Selenium	<0.000685	U	0.00200	0.000685	mg/L		02/10/25 13:00	02/11/25 15:02	1
Silver	<0.000351	U	0.00200	0.000351	mg/L		02/10/25 13:00	02/11/25 15:02	1
Thallium	<0.000215	U	0.00200	0.000215	mg/L		02/10/25 13:00	02/11/25 15:02	1
Uranium	<0.000122	U	0.00100	0.000122	mg/L		02/10/25 13:00	02/11/25 15:02	1
Zinc	<0.000885	U	0.00400	0.000885	mg/L		02/10/25 13:00	02/11/25 15:02	1

Lab Sample ID: LCS 860-215720/2-A

Matrix: Water

Analysis Batch: 216084

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 215720

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	0.500	0.4876		mg/L		98	85 - 115
Antimony	0.100	0.09642		mg/L		96	85 - 115
Arsenic	0.100	0.09815		mg/L		98	85 - 115
Barium	0.100	0.09742		mg/L		97	85 - 115
Beryllium	0.100	0.09629		mg/L		96	85 - 115
Boron	0.100	0.09469		mg/L		95	85 - 115
Cadmium	0.100	0.09746		mg/L		97	85 - 115
Chromium	0.100	0.09651		mg/L		97	85 - 115
Cobalt	0.100	0.09661		mg/L		97	85 - 115
Copper	0.100	0.09669		mg/L		97	85 - 115
Iron	0.500	0.4876		mg/L		98	85 - 115
Lead	0.100	0.09534		mg/L		95	85 - 115
Manganese	0.100	0.09700		mg/L		97	85 - 115
Molybdenum	0.100	0.09666		mg/L		97	85 - 115
Nickel	0.100	0.09682		mg/L		97	85 - 115
Selenium	0.100	0.09725		mg/L		97	85 - 115
Silver	0.0500	0.04925		mg/L		99	85 - 115
Thallium	0.100	0.09534		mg/L		95	85 - 115
Uranium	0.0249	0.02416		mg/L		97	85 - 115
Zinc	0.100	0.1004		mg/L		100	85 - 115

Lab Sample ID: LCSD 860-215720/3-A

Matrix: Water

Analysis Batch: 216084

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 215720

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	0.500	0.4896		mg/L		98	85 - 115	0	20
Antimony	0.100	0.09903		mg/L		99	85 - 115	3	20
Arsenic	0.100	0.09979		mg/L		100	85 - 115	2	20
Barium	0.100	0.09670		mg/L		97	85 - 115	1	20
Beryllium	0.100	0.09657		mg/L		97	85 - 115	0	20
Boron	0.100	0.09589		mg/L		96	85 - 115	1	20
Cadmium	0.100	0.09878		mg/L		99	85 - 115	1	20
Chromium	0.100	0.09720		mg/L		97	85 - 115	1	20
Cobalt	0.100	0.09752		mg/L		98	85 - 115	1	20
Copper	0.100	0.09710		mg/L		97	85 - 115	0	20

Eurofins Lubbock

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 860-215720/3-A

Matrix: Water

Analysis Batch: 216084

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 215720

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	Limit
	Added	Result	Qualifier				Limits		
Iron	0.500	0.4875		mg/L		98	85 - 115	0	20
Lead	0.100	0.09526		mg/L		95	85 - 115	0	20
Manganese	0.100	0.09829		mg/L		98	85 - 115	1	20
Molybdenum	0.100	0.09829		mg/L		98	85 - 115	2	20
Nickel	0.100	0.09788		mg/L		98	85 - 115	1	20
Selenium	0.100	0.09839		mg/L		98	85 - 115	1	20
Silver	0.0500	0.04983		mg/L		100	85 - 115	1	20
Thallium	0.100	0.09543		mg/L		95	85 - 115	0	20
Uranium	0.0249	0.02433		mg/L		98	85 - 115	1	20
Zinc	0.100	0.09952		mg/L		100	85 - 115	1	20

Lab Sample ID: LLCS 860-215720/4-A

Matrix: Water

Analysis Batch: 216084

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 215720

Analyte	Spike	LLCS	LLCS	Unit	D	%Rec	%Rec	RPD	Limit
	Added	Result	Qualifier				Limits		
Aluminum	0.0200	0.02137		mg/L		107	50 - 150		
Antimony	0.00200	0.002163		mg/L		108	50 - 150		
Arsenic	0.00400	0.004283		mg/L		107	50 - 150		
Barium	0.00400	0.004146		mg/L		104	50 - 150		
Beryllium	0.00200	0.002087		mg/L		104	50 - 150		
Boron	0.0100	0.007989	J	mg/L		80	50 - 150		
Cadmium	0.00200	0.002146		mg/L		107	50 - 150		
Chromium	0.00400	0.004150		mg/L		104	50 - 150		
Cobalt	0.00200	0.002148		mg/L		107	50 - 150		
Copper	0.00400	0.004519		mg/L		113	50 - 150		
Iron	0.0200	0.01645	J	mg/L		82	50 - 150		
Lead	0.00200	0.002026		mg/L		101	50 - 150		
Manganese	0.00200	0.002160		mg/L		108	50 - 150		
Molybdenum	0.00200	0.002139		mg/L		107	50 - 150		
Nickel	0.00200	0.002083		mg/L		104	50 - 150		
Selenium	0.00200	0.002037		mg/L		102	50 - 150		
Silver	0.00200	0.002101		mg/L		105	50 - 150		
Thallium	0.00200	0.002017		mg/L		101	50 - 150		
Uranium	0.00100	0.0009690	J	mg/L		97	50 - 150		
Zinc	0.00400	0.004256		mg/L		106	50 - 150		

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 860-215840/10-A

Matrix: Water

Analysis Batch: 216094

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 215840

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.0000525	U	0.000200	0.0000525	mg/L		02/11/25 04:06	02/11/25 15:34	1

Eurofins Lubbock

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 860-215840/11-A

Matrix: Water

Analysis Batch: 216094

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 215840

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Mercury	0.00200	0.002014		mg/L		101	85 - 115	

Lab Sample ID: LCSD 860-215840/12-A

Matrix: Water

Analysis Batch: 216094

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 215840

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.00200	0.002019		mg/L		101	85 - 115	0	20

Lab Sample ID: LLCS 860-215840/13-A

Matrix: Water

Analysis Batch: 216094

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 215840

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits	
Mercury	0.000200	0.0002190		mg/L		110	50 - 150	

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 860-216264/16

Matrix: Water

Analysis Batch: 216264

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.00580	U	0.0100	0.00580	mg/L			02/11/25 18:14	1

Lab Sample ID: LCS 860-216264/17

Matrix: Water

Analysis Batch: 216264

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Phenols, Total	0.100	0.09830		mg/L		98	90 - 110	

Lab Sample ID: LCSD 860-216264/18

Matrix: Water

Analysis Batch: 216264

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenols, Total	0.100	0.09670		mg/L		97	90 - 110	2	20

Method: Kelada 01 - Cyanide, Total, Acid Dissociable and Thiocyanate

Lab Sample ID: MB 860-215993/24

Matrix: Water

Analysis Batch: 215993

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.00198	U	0.00500	0.00198	mg/L			02/10/25 17:49	1

Eurofins Lubbock

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Method: Kelada 01 - Cyanide, Total, Acid Dissociable and Thiocyanate (Continued)

Lab Sample ID: MB 860-215993/66

Matrix: Water

Analysis Batch: 215993

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.00198	U	0.00500	0.00198	mg/L			02/10/25 19:54	1

Lab Sample ID: LCS 860-215993/52

Matrix: Water

Analysis Batch: 215993

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.100	0.09075		mg/L		91	90 - 110

Lab Sample ID: LCSD 860-215993/53

Matrix: Water

Analysis Batch: 215993

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	0.100	0.09055		mg/L		91	90 - 110	0	20

Lab Sample ID: LLCS 860-215993/75

Matrix: Water

Analysis Batch: 215993

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.00500	0.006793		mg/L		136	50 - 150

Lab Sample ID: 820-17319-6 MS

Matrix: Water

Analysis Batch: 215993

Client Sample ID: WW-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	<0.00198	U	0.100	0.09132		mg/L		91	90 - 110

Lab Sample ID: 820-17319-6 MSD

Matrix: Water

Analysis Batch: 215993

Client Sample ID: WW-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	<0.00198	U	0.100	0.09542		mg/L		95	90 - 110	4	20

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

Lab Sample ID: MB 860-215850/1

Matrix: Water

Analysis Batch: 215850

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00	5.00	mg/L			02/11/25 06:28	1

Eurofins Lubbock

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

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

Lab Sample ID: LCS 860-215850/2				Client Sample ID: Lab Control Sample			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 215850							
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	980.0		mg/L		98	80 - 120

Lab Sample ID: LLCS 860-215850/25				Client Sample ID: Lab Control Sample			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 215850							
Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	5.00	7.000		mg/L		140	50 - 150

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

GC/MS VOA

Analysis Batch: 215421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-5	TMW-17-LF	Total/NA	Water	624.1	
820-17319-6	WW-1	Total/NA	Water	624.1	
MB 860-215421/16	Method Blank	Total/NA	Water	624.1	
LCS 860-215421/1012	Lab Control Sample	Total/NA	Water	624.1	
LCSD 860-215421/13	Lab Control Sample Dup	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 215600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-5	TMW-17-LF	Total/NA	Water	3511	
820-17319-6	WW-1	Total/NA	Water	3511	
MB 860-215600/1-A	Method Blank	Total/NA	Water	3511	
LCS 860-215600/2-A	Lab Control Sample	Total/NA	Water	3511	
LCSD 860-215600/3-A	Lab Control Sample Dup	Total/NA	Water	3511	

Analysis Batch: 215676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-215600/1-A	Method Blank	Total/NA	Water	625.1	215600
LCS 860-215600/2-A	Lab Control Sample	Total/NA	Water	625.1	215600
LCSD 860-215600/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	215600

Analysis Batch: 215835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-5	TMW-17-LF	Total/NA	Water	625.1	215600

Analysis Batch: 215918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-6	WW-1	Total/NA	Water	625.1	215600

GC Semi VOA

Prep Batch: 216304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-5	TMW-17-LF	Total/NA	Water	3511	
820-17319-6	WW-1	Total/NA	Water	3511	
MB 860-216304/1-A	Method Blank	Total/NA	Water	3511	
LCS 860-216304/4-A	Lab Control Sample	Total/NA	Water	3511	
LCSD 860-216304/5-A	Lab Control Sample Dup	Total/NA	Water	3511	

Analysis Batch: 216423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-5	TMW-17-LF	Total/NA	Water	608.3	216304
820-17319-6	WW-1	Total/NA	Water	608.3	216304
MB 860-216304/1-A	Method Blank	Total/NA	Water	608.3	216304
LCS 860-216304/4-A	Lab Control Sample	Total/NA	Water	608.3	216304
LCSD 860-216304/5-A	Lab Control Sample Dup	Total/NA	Water	608.3	216304

Eurofins Lubbock

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

HPLC/IC

Analysis Batch: 215051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-5	TMW-17-LF	Total/NA	Water	300.0	
820-17319-6	WW-1	Total/NA	Water	300.0	
MB 860-215051/3	Method Blank	Total/NA	Water	300.0	
MB 860-215051/57	Method Blank	Total/NA	Water	300.0	
LCS 860-215051/58	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-215051/59	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-215051/6	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 215052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-5	TMW-17-LF	Total/NA	Water	300.0	
820-17319-5 - DL	TMW-17-LF	Total/NA	Water	300.0	
820-17319-6	WW-1	Total/NA	Water	300.0	
MB 860-215052/3	Method Blank	Total/NA	Water	300.0	
MB 860-215052/57	Method Blank	Total/NA	Water	300.0	
LCS 860-215052/58	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-215052/59	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-215052/7	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 215828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-1	TMW-2	Total/NA	Water	300.0	
820-17319-2	TMW-17-HS-T	Total/NA	Water	300.0	
820-17319-3	TMW-17-HS-M	Total/NA	Water	300.0	
820-17319-4	TMW-17-HS-B	Total/NA	Water	300.0	
820-17319-7	DUP-1	Total/NA	Water	300.0	
820-17319-8	DUP-2	Total/NA	Water	300.0	
MB 860-215828/3	Method Blank	Total/NA	Water	300.0	
LCS 860-215828/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-215828/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-215828/7	Lab Control Sample	Total/NA	Water	300.0	
820-17319-1 MS	TMW-2	Total/NA	Water	300.0	
820-17319-1 MSD	TMW-2	Total/NA	Water	300.0	

Metals

Prep Batch: 215720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-5	TMW-17-LF	Total Recoverable	Water	200.8	
820-17319-6	WW-1	Total Recoverable	Water	200.8	
MB 860-215720/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 860-215720/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 860-215720/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
LLCS 860-215720/4-A	Lab Control Sample	Total Recoverable	Water	200.8	

Prep Batch: 215840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-5	TMW-17-LF	Total/NA	Water	245.1	
820-17319-6	WW-1	Total/NA	Water	245.1	
MB 860-215840/10-A	Method Blank	Total/NA	Water	245.1	
LCS 860-215840/11-A	Lab Control Sample	Total/NA	Water	245.1	

Eurofins Lubbock

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Metals (Continued)

Prep Batch: 215840 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 860-215840/12-A	Lab Control Sample Dup	Total/NA	Water	245.1	
LLCS 860-215840/13-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 216084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-5	TMW-17-LF	Total Recoverable	Water	200.8	215720
820-17319-5	TMW-17-LF	Total Recoverable	Water	200.8	215720
820-17319-6	WW-1	Total Recoverable	Water	200.8	215720
MB 860-215720/1-A	Method Blank	Total Recoverable	Water	200.8	215720
LCS 860-215720/2-A	Lab Control Sample	Total Recoverable	Water	200.8	215720
LCSD 860-215720/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	215720
LLCS 860-215720/4-A	Lab Control Sample	Total Recoverable	Water	200.8	215720

Analysis Batch: 216094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-5	TMW-17-LF	Total/NA	Water	245.1	215840
820-17319-6	WW-1	Total/NA	Water	245.1	215840
MB 860-215840/10-A	Method Blank	Total/NA	Water	245.1	215840
LCS 860-215840/11-A	Lab Control Sample	Total/NA	Water	245.1	215840
LCSD 860-215840/12-A	Lab Control Sample Dup	Total/NA	Water	245.1	215840
LLCS 860-215840/13-A	Lab Control Sample	Total/NA	Water	245.1	215840

General Chemistry

Analysis Batch: 215562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-5	TMW-17-LF	Total/NA	Water	SM 4500 H+ B	
820-17319-6	WW-1	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 215850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-1	TMW-2	Total/NA	Water	SM 2540C	
820-17319-2	TMW-17-HS-T	Total/NA	Water	SM 2540C	
820-17319-3	TMW-17-HS-M	Total/NA	Water	SM 2540C	
820-17319-4	TMW-17-HS-B	Total/NA	Water	SM 2540C	
820-17319-5	TMW-17-LF	Total/NA	Water	SM 2540C	
820-17319-6	WW-1	Total/NA	Water	SM 2540C	
MB 860-215850/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-215850/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LLCS 860-215850/25	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 215993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-5	TMW-17-LF	Total/NA	Water	Kelada 01	
820-17319-6	WW-1	Total/NA	Water	Kelada 01	
MB 860-215993/24	Method Blank	Total/NA	Water	Kelada 01	
MB 860-215993/66	Method Blank	Total/NA	Water	Kelada 01	
LCS 860-215993/52	Lab Control Sample	Total/NA	Water	Kelada 01	
LCSD 860-215993/53	Lab Control Sample Dup	Total/NA	Water	Kelada 01	
LLCS 860-215993/75	Lab Control Sample	Total/NA	Water	Kelada 01	
820-17319-6 MS	WW-1	Total/NA	Water	Kelada 01	

Eurofins Lubbock

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

General Chemistry (Continued)

Analysis Batch: 215993 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-6 MSD	WW-1	Total/NA	Water	Kelada 01	

Analysis Batch: 216264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-5	TMW-17-LF	Total/NA	Water	420.4	
820-17319-6	WW-1	Total/NA	Water	420.4	
MB 860-216264/16	Method Blank	Total/NA	Water	420.4	
LCS 860-216264/17	Lab Control Sample	Total/NA	Water	420.4	
LCSD 860-216264/18	Lab Control Sample Dup	Total/NA	Water	420.4	

Biology

Analysis Batch: 3386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-5	TMW-17-LF	Total/NA	Water	9223B	
820-17319-6	WW-1	Total/NA	Water	9223B	

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Client Sample ID: TMW-2

Lab Sample ID: 820-17319-1

Date Collected: 02/05/25 09:11

Matrix: Water

Date Received: 02/05/25 15:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			215828	02/11/25 02:20	A1S	EET HOU
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	215850	02/11/25 07:00	TR	EET HOU

Client Sample ID: TMW-17-HS-T

Lab Sample ID: 820-17319-2

Date Collected: 02/05/25 10:00

Matrix: Water

Date Received: 02/05/25 15:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			215828	02/11/25 03:12	A1S	EET HOU
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	215850	02/11/25 07:00	TR	EET HOU

Client Sample ID: TMW-17-HS-M

Lab Sample ID: 820-17319-3

Date Collected: 02/05/25 10:05

Matrix: Water

Date Received: 02/05/25 15:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			215828	02/11/25 04:18	A1S	EET HOU
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	215850	02/11/25 07:00	TR	EET HOU

Client Sample ID: TMW-17-HS-B

Lab Sample ID: 820-17319-4

Date Collected: 02/05/25 10:10

Matrix: Water

Date Received: 02/05/25 15:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1000			215828	02/11/25 04:45	A1S	EET HOU
Total/NA	Analysis	SM 2540C		1	5 mL	200 mL	215850	02/11/25 07:00	TR	EET HOU

Client Sample ID: TMW-17-LF

Lab Sample ID: 820-17319-5

Date Collected: 02/05/25 10:32

Matrix: Water

Date Received: 02/05/25 15:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	5 mL	5 mL	215421	02/08/25 04:16	A1S	EET HOU
Total/NA	Prep	3511			70 mL	4 mL	215600	02/10/25 07:47	DR	EET HOU
Total/NA	Analysis	625.1		1	1 mL	1 mL	215835	02/11/25 09:23	EM	EET HOU
Total/NA	Prep	3511			50.4 mL	5 mL	216304	02/12/25 14:02	TH	EET HOU
Total/NA	Analysis	608.3		1			216423	02/13/25 13:45	WP	EET HOU
Total/NA	Analysis	300.0		10			215051	02/07/25 04:37	WP	EET HOU
Total/NA	Analysis	300.0		10			215052	02/07/25 04:37	WP	EET HOU
Total/NA	Analysis	300.0	DL	100			215052	02/07/25 04:45	WP	EET HOU
Total Recoverable	Prep	200.8			50 mL	50 mL	215720	02/10/25 13:00	MD	EET HOU
Total Recoverable	Analysis	200.8		1			216084	02/11/25 15:43	SHZ	EET HOU
Total Recoverable	Prep	200.8			50 mL	50 mL	215720	02/10/25 13:00	MD	EET HOU
Total Recoverable	Analysis	200.8		10			216084	02/11/25 15:48	SHZ	EET HOU

Eurofins Lubbock

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Client Sample ID: TMW-17-LF

Lab Sample ID: 820-17319-5

Date Collected: 02/05/25 10:32

Matrix: Water

Date Received: 02/05/25 15:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	245.1			50 mL	50 mL	215840	02/11/25 04:07	AGR	EET HOU
Total/NA	Analysis	245.1		1			216094	02/11/25 16:20	SHZ	EET HOU
Total/NA	Analysis	420.4		100	10 mL	10 mL	216264	02/11/25 19:02	BW	EET HOU
Total/NA	Analysis	Kelada 01		1	10 mL	10 mL	215993	02/10/25 18:33	BW	EET HOU
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	215850	02/11/25 07:00	TR	EET HOU
Total/NA	Analysis	SM 4500 H+ B		1			215562	02/09/25 14:24	MR	EET HOU
Total/NA	Analysis	9223B		1	100 mL	100 mL	3386	02/06/25 12:28	YP	EET LUB

Client Sample ID: WW-1

Lab Sample ID: 820-17319-6

Date Collected: 02/05/25 10:50

Matrix: Water

Date Received: 02/05/25 15:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	5 mL	5 mL	215421	02/08/25 04:37	A1S	EET HOU
Total/NA	Prep	3511			70.3 mL	4 mL	215600	02/10/25 07:47	DR	EET HOU
Total/NA	Analysis	625.1		1	1 mL	1 mL	215918	02/11/25 11:48	PXS	EET HOU
Total/NA	Prep	3511			49.7 mL	5 mL	216304	02/12/25 14:02	TH	EET HOU
Total/NA	Analysis	608.3		1			216423	02/13/25 13:56	WP	EET HOU
Total/NA	Analysis	300.0		1			215051	02/07/25 04:52	WP	EET HOU
Total/NA	Analysis	300.0		1			215052	02/07/25 04:52	WP	EET HOU
Total Recoverable	Prep	200.8			50 mL	50 mL	215720	02/10/25 13:00	MD	EET HOU
Total Recoverable	Analysis	200.8		1			216084	02/11/25 15:45	SHZ	EET HOU
Total/NA	Prep	245.1			50 mL	50 mL	215840	02/11/25 04:07	AGR	EET HOU
Total/NA	Analysis	245.1		1			216094	02/11/25 16:24	SHZ	EET HOU
Total/NA	Analysis	420.4		1	10 mL	10 mL	216264	02/11/25 18:59	BW	EET HOU
Total/NA	Analysis	Kelada 01		1	10 mL	10 mL	215993	02/10/25 18:48	BW	EET HOU
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	215850	02/11/25 07:00	TR	EET HOU
Total/NA	Analysis	SM 4500 H+ B		1			215562	02/09/25 14:26	MR	EET HOU
Total/NA	Analysis	9223B		1	100 mL	100 mL	3386	02/06/25 12:28	YP	EET LUB

Client Sample ID: DUP-1

Lab Sample ID: 820-17319-7

Date Collected: 02/05/25 00:00

Matrix: Water

Date Received: 02/05/25 15:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			215828	02/11/25 05:11	A1S	EET HOU

Client Sample ID: DUP-2

Lab Sample ID: 820-17319-8

Date Collected: 02/05/25 00:00

Matrix: Water

Date Received: 02/05/25 15:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			215828	02/11/25 05:38	A1S	EET HOU

Eurofins Lubbock

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Laboratory References:
EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200
EET LUB = Eurofins Lubbock, 6701 Aberdeen Ave., Suite 8, Lubbock, TX 79424, TEL (806)794-1296

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

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Laboratory: Eurofins Lubbock

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704219	03-31-25

Laboratory: Eurofins Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215	07-01-26

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification .

Analysis Method	Prep Method	Matrix	Analyte
420.4		Water	Phenols, Total
608.3	3511	Water	Polychlorinated biphenyls, Total
624.1		Water	1,2,4-Trichlorobenzene
624.1		Water	Styrene
625.1	3511	Water	Atrazine
625.1	3511	Water	Dibenzofuran
SM 4500 H+ B		Water	Temperature

Method Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	EPA	EET HOU
625.1	Semivolatile Organic Compounds (GC-MS/MS)	EPA	EET HOU
608.3	Polychlorinated Biphenyls (PCBs) (GC)	EPA	EET HOU
300.0	Anions, Ion Chromatography	EPA	EET HOU
200.8	Metals (ICP/MS)	EPA	EET HOU
245.1	Mercury (CVAA)	EPA	EET HOU
420.4	Phenolics, Total Recoverable	EPA	EET HOU
Kelada 01	Cyanide, Total, Acid Dissociable and Thiocyanate	EPA	EET HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET HOU
SM 4500 H+ B	pH	SM	EET HOU
9223B	Coliforms, Total, and E.Coli (Presence/Absence)	SM	EET LUB
200.8	Preparation, Total Recoverable Metals	EPA	EET HOU
245.1	Preparation, Mercury	EPA	EET HOU
3511	Microextraction of Organic Compounds	SW846	EET HOU

Protocol References:

- EPA = US Environmental Protection Agency
- SM = "Standard Methods For The Examination Of Water And Wastewater"
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

- EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200
- EET LUB = Eurofins Lubbock, 6701 Aberdeen Ave., Suite 8, Lubbock, TX 79424, TEL (806)794-1296

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-1
SDG: KH247030

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
820-17319-1	TMW-2	Water	02/05/25 09:11	02/05/25 15:47
820-17319-2	TMW-17-HS-T	Water	02/05/25 10:00	02/05/25 15:47
820-17319-3	TMW-17-HS-M	Water	02/05/25 10:05	02/05/25 15:47
820-17319-4	TMW-17-HS-B	Water	02/05/25 10:10	02/05/25 15:47
820-17319-5	TMW-17-LF	Water	02/05/25 10:32	02/05/25 15:47
820-17319-6	WW-1	Water	02/05/25 10:50	02/05/25 15:47
820-17319-7	DUP-1	Water	02/05/25 00:00	02/05/25 15:47
820-17319-8	DUP-2	Water	02/05/25 00:00	02/05/25 15:47

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

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-17319-1
SDG Number: KH247030

Login Number: 17319
List Number: 1
Creator: Taylor, Holly

List Source: Eurofins Lubbock

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

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-17319-1

SDG Number: KH247030

Login Number: 17319

List Number: 2

Creator: Baker, Jeremiah

List Source: Eurofins Houston

List Creation: 02/06/25 01:42 PM

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

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Lubbock

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-17319-1

SDG Number: KH247030

Login Number: 17319

List Number: 3

Creator: Baker, Jeremiah

List Source: Eurofins Houston

List Creation: 02/07/25 11:36 AM

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

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Lubbock



Environment Testing

1

2

3

4

5

6

7

8

9

10

11

12

13

ANALYTICAL REPORT

PREPARED FOR

Attn: John Grams
Terracon Consulting Eng & Scientists
5847 50th St
Lubbock, Texas 79424

Generated 2/20/2025 8:27:30 AM Revision 1

JOB DESCRIPTION

Apache EBDU
KH247030

JOB NUMBER

820-17319-5

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.

Eurofins Lubbock

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Generated
2/20/2025 8:27:30 AM
Revision 1

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Laboratory Job ID: 820-17319-5
SDG: KH247030

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
QC Sample Results	7
QC Association Summary	9
Lab Chronicle	10
Certification Summary	11
Method Summary	12
Sample Summary	13
Chain of Custody	14
Receipt Checklists	15

1

2

3

4

5

6

7

8

9

10

11

12

13

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-5
SDG: KH247030

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Terracon Consulting Eng & Scientists
Project: Apache EBDU

Job ID: 820-17319-5

Job ID: 820-17319-5

Eurofins Lubbock

**Job Narrative
820-17319-5**

REVISION

The report being provided is a revision of the original report sent on 2/14/2025. The report (revision 1) is being revised due to Per client email, requesting chloride and TDS be reviewed.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 2/5/2025 3:47 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 7.7°C.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

Method 2540C_Calcd: Reanalysis of the following sample(s) was performed outside of the analytical holding time due to client request.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Lubbock

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-5
SDG: KH247030

Client Sample ID: TMW-17-HS-B
Date Collected: 02/05/25 10:10
Date Received: 02/05/25 15:47

Lab Sample ID: 820-17319-4
Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13200		50.0	25.0	mg/L			02/11/25 04:45	100

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	39000		200	200	mg/L			02/11/25 07:00	1

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-5
SDG: KH247030

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-215828/3

Matrix: Water

Analysis Batch: 215828

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U	0.500	0.250	mg/L			02/10/25 20:09	1

Lab Sample ID: LCS 860-215828/4

Matrix: Water

Analysis Batch: 215828

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.19		mg/L		102	90 - 110

Lab Sample ID: LCSD 860-215828/5

Matrix: Water

Analysis Batch: 215828

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.08		mg/L		101	90 - 110	1	20

Lab Sample ID: LLCS 860-215828/7

Matrix: Water

Analysis Batch: 215828

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.6053		mg/L		121	50 - 150

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

Lab Sample ID: MB 860-215850/1

Matrix: Water

Analysis Batch: 215850

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00	5.00	mg/L			02/11/25 06:28	1

Lab Sample ID: LCS 860-215850/2

Matrix: Water

Analysis Batch: 215850

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	980.0		mg/L		98	80 - 120

Lab Sample ID: LLCS 860-215850/25

Matrix: Water

Analysis Batch: 215850

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	5.00	7.000		mg/L		140	50 - 150

Eurofins Lubbock

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-5
SDG: KH247030

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

Lab Sample ID: MB 860-217227/1

Matrix: Water

Analysis Batch: 217227

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00	5.00	mg/L			02/18/25 08:13	1

Lab Sample ID: LCS 860-217227/2

Matrix: Water

Analysis Batch: 217227

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1023		mg/L		102	80 - 120

Lab Sample ID: LLCS 860-217227/3

Matrix: Water

Analysis Batch: 217227

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	5.00	6.000		mg/L		120	50 - 150

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-5
SDG: KH247030

HPLC/IC

Analysis Batch: 215828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-4	TMW-17-HS-B	Total/NA	Water	300.0	
MB 860-215828/3	Method Blank	Total/NA	Water	300.0	
LCS 860-215828/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-215828/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-215828/7	Lab Control Sample	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 215850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-4	TMW-17-HS-B	Total/NA	Water	SM 2540C	
MB 860-215850/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-215850/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LLCS 860-215850/25	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 217227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-217227/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-217227/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LLCS 860-217227/3	Lab Control Sample	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-5
SDG: KH247030

Client Sample ID: TMW-17-HS-B

Lab Sample ID: 820-17319-4

Date Collected: 02/05/25 10:10

Matrix: Water

Date Received: 02/05/25 15:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			215828	02/11/25 04:45	A1S	EET HOU
Total/NA	Analysis	SM 2540C		1	5 mL	200 mL	215850	02/11/25 07:00	TR	EET HOU

Laboratory References:
EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

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

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-5
SDG: KH247030

Laboratory: Eurofins Houston

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215	07-01-26

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

Method Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-5
SDG: KH247030

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET HOU

Protocol References:

- EPA = US Environmental Protection Agency
- SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

- EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

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

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-5
SDG: KH247030

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
820-17319-4	TMW-17-HS-B	Water	02/05/25 10:10	02/05/25 15:47

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

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-17319-5
SDG Number: KH247030

Login Number: 17319
List Number: 1
Creator: Taylor, Holly

List Source: Eurofins Lubbock

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

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-17319-5

SDG Number: KH247030

Login Number: 17319**List Number: 2****Creator: Baker, Jeremiah****List Source: Eurofins Houston****List Creation: 02/06/25 01:42 PM**

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

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Lubbock

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-17319-5

SDG Number: KH247030

Login Number: 17319**List Number: 3****Creator: Baker, Jeremiah****List Source: Eurofins Houston****List Creation: 02/07/25 11:36 AM**

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

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Lubbock



Environment Testing

1

2

3

4

5

6

7

8

9

10

11

12

13

14

ANALYTICAL REPORT

PREPARED FOR

Attn: John Grams
Terracon Consulting Eng & Scientists
5847 50th St
Lubbock, Texas 79424
Generated 3/5/2025 3:24:21 PM

JOB DESCRIPTION

Apache EBDU
KH247030

JOB NUMBER

820-17319-2

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.

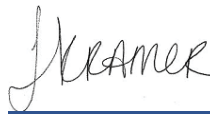
Eurofins Lubbock

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
3/5/2025 3:24:21 PM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Laboratory Job ID: 820-17319-2
SDG: KH247030

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Tracer Carrier Summary	7
QC Sample Results	8
QC Association Summary	9
Lab Chronicle	10
Certification Summary	11
Method Summary	12
Sample Summary	13
Chain of Custody	14
Receipt Checklists	16

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

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-2
SDG: KH247030

Qualifiers

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

Glossary

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

Case Narrative

Client: Terracon Consulting Eng & Scientists
Project: Apache EBDU

Job ID: 820-17319-2

Job ID: 820-17319-2

Eurofins Lubbock

Job Narrative 820-17319-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 2/5/2025 3:47 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 7.7°C.

Gas Flow Proportional Counter

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Lubbock

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-2
SDG: KH247030

Client Sample ID: TMW-17-LF

Lab Sample ID: 820-17319-5

Date Collected: 02/05/25 10:32

Matrix: Water

Date Received: 02/05/25 15:47

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00687	U	0.0958	0.0958	1.00	0.202	pCi/L	02/10/25 08:58	03/04/25 07:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.8		30 - 110					02/10/25 08:58	03/04/25 07:43	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.428	U	0.461	0.463	1.00	0.748	pCi/L	02/10/25 09:01	02/27/25 12:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.8		30 - 110					02/10/25 09:01	02/27/25 12:26	1
Y Carrier	85.2		30 - 110					02/10/25 09:01	02/27/25 12:26	1

Client Sample ID: WW-1

Lab Sample ID: 820-17319-6

Date Collected: 02/05/25 10:50

Matrix: Water

Date Received: 02/05/25 15:47

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.165		0.116	0.117	1.00	0.162	pCi/L	02/10/25 08:58	03/04/25 07:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	68.4		30 - 110					02/10/25 08:58	03/04/25 07:43	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.179	U	0.457	0.457	1.00	0.801	pCi/L	02/10/25 09:01	02/27/25 12:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	68.4		30 - 110					02/10/25 09:01	02/27/25 12:26	1
Y Carrier	86.4		30 - 110					02/10/25 09:01	02/27/25 12:26	1

Eurofins Lubbock

Tracer/Carrier Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-2
SDG: KH247030

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	
820-17319-5	TMW-17-LF	76.8	
820-17319-6	WW-1	68.4	
LCS 160-702255/2-A	Lab Control Sample	90.6	
MB 160-702255/1-A	Method Blank	91.1	
Tracer/Carrier Legend			
Ba = Ba Carrier			

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
820-17319-5	TMW-17-LF	76.8	85.2
820-17319-6	WW-1	68.4	86.4
LCS 160-702256/2-A	Lab Control Sample	90.6	79.3
MB 160-702256/1-A	Method Blank	91.1	84.5
Tracer/Carrier Legend			
Ba = Ba Carrier			
Y = Y Carrier			

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-2
SDG: KH247030

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-702255/1-A

Matrix: Water

Analysis Batch: 705883

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 702255

Analyte	MB Result	MB Qualifier	Count Uncert. (2 σ +/-)	Total Uncert. (2 σ +/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.03631	U	0.0530	0.0531	1.00	0.134	pCi/L	02/10/25 08:58	03/04/25 07:48	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.1		30 - 110					02/10/25 08:58	03/04/25 07:48	1

Lab Sample ID: LCS 160-702255/2-A

Matrix: Water

Analysis Batch: 705883

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 702255

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2 σ +/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226		9.58	9.309		1.02	1.00	0.130	pCi/L	97	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	90.6		30 - 110							

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-702256/1-A

Matrix: Water

Analysis Batch: 705086

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 702256

Analyte	MB Result	MB Qualifier	Count Uncert. (2 σ +/-)	Total Uncert. (2 σ +/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.07252	U	0.296	0.296	1.00	0.571	pCi/L	02/10/25 09:01	02/27/25 12:25	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.1		30 - 110					02/10/25 09:01	02/27/25 12:25	1
Y Carrier	84.5		30 - 110					02/10/25 09:01	02/27/25 12:25	1

Lab Sample ID: LCS 160-702256/2-A

Matrix: Water

Analysis Batch: 705086

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 702256

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2 σ +/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228		8.06	7.392		1.12	1.00	0.559	pCi/L	92	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	90.6		30 - 110							
Y Carrier	79.3		30 - 110							

Eurofins Lubbock

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-2
SDG: KH247030

Rad

Prep Batch: 702255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-5	TMW-17-LF	Total/NA	Water	PrecSep-21	
820-17319-6	WW-1	Total/NA	Water	PrecSep-21	
MB 160-702255/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-702255/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 702256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-17319-5	TMW-17-LF	Total/NA	Water	PrecSep_0	
820-17319-6	WW-1	Total/NA	Water	PrecSep_0	
MB 160-702256/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-702256/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-2
SDG: KH247030

Client Sample ID: TMW-17-LF
Date Collected: 02/05/25 10:32
Date Received: 02/05/25 15:47

Lab Sample ID: 820-17319-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			753.54 mL	1.0 g	702255	02/10/25 08:58	OGC	EET SL
Total/NA	Analysis	903.0		1			705971	03/04/25 07:43	CMM	EET SL
Total/NA	Prep	PrecSep_0			753.54 mL	1.0 g	702256	02/10/25 09:01	OGC	EET SL
Total/NA	Analysis	904.0		1	1.0 mL	1.0 mL	705086	02/27/25 12:26	SWS	EET SL

Client Sample ID: WW-1
Date Collected: 02/05/25 10:50
Date Received: 02/05/25 15:47

Lab Sample ID: 820-17319-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1006.06 mL	1.0 g	702255	02/10/25 08:58	OGC	EET SL
Total/NA	Analysis	903.0		1			705971	03/04/25 07:43	CMM	EET SL
Total/NA	Prep	PrecSep_0			1006.06 mL	1.0 g	702256	02/10/25 09:01	OGC	EET SL
Total/NA	Analysis	904.0		1	1.0 mL	1.0 mL	705086	02/27/25 12:26	SWS	EET SL

Laboratory References:
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-2
SDG: KH247030

Laboratory: Eurofins St. Louis

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704193	07-31-25

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

Method Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-2
SDG: KH247030

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency
None = None

Laboratory References:

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

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Apache EBDU

Job ID: 820-17319-2
SDG: KH247030

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
820-17319-5	TMW-17-LF	Water	02/05/25 10:32	02/05/25 15:47
820-17319-6	WW-1	Water	02/05/25 10:50	02/05/25 15:47

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

Eurofins Lubbock

6701 Aberdeen Ave. Suite 8

Lubbock, TX 79424

Phone: 806-794-1296

Chain of Custody Record



Environment Testing

[illegible]

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-17319-2

SDG Number: KH247030

Login Number: 17319

List Number: 1

Creator: Taylor, Holly

List Source: Eurofins Lubbock

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

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Lubbock

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-17319-2

SDG Number: KH247030

Login Number: 17319

List Number: 4

Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis

List Creation: 02/07/25 01:39 PM

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

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Lubbock

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 456123

CONDITIONS

Operator: APACHE CORPORATION 303 Veterans Airpark Ln Midland, TX 79705	OGRID:
	873
	Action Number:
	456123
Action Type:	
[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)	

CONDITIONS

Created By	Condition	Condition Date
bhall	2025 First Quarter Groundwater Monitoring Report accepted for record.	5/1/2025
bhall	All conditions approved by the OCC in the Joint Motion approved on April 17, 2025, must be met.	5/1/2025