

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

January 23, 2025

New Mexico Oil Conservation Division (NMOCD) EMNRD/OCD 8801 Horizon Blvd NE, Suite 260 Albuquerque, NM 87113

Attn: Mr. Michael Buchanan P 505-490-0798

E Michael.buchanan@emnrd.nm.gov

RE: 2024 Fourth Quarter Groundwater Monitoring Report - revised

Apache Corporation

EBDU #37

Case No. (1R-5636), Incident ID NDHR1922141227

Lea County, New Mexico

Terracon Project No. KH247030

Dear Mr. Buchanan:

Terracon Consultants, Inc. (Terracon) and Apache Corporation (Apache) have prepared this report presenting the results of groundwater monitoring which occurred in October and November, 2024. This is an updated version of the report previously submitted by email on January 8 2024. Errors in the original report included a formula error in calculating the groundwater elevation that resulted in an incorrect groundwater elevation being reported in Table 1 for TMW-13 for all dates, and an error in the reported groundwater elevation for TMW-14 during the 10/23/24 gauging event in Table 1 and Exhibit 2. Note that the groundwater flow map in Exhibit 2 was calculated with the correct groundwater elevation for TMW-14, but the label next to the well on the figure was incorrect.

These corrections have resulted in a very slight change in the groundwater contour lines in the area of TMW-13 on the map presented as Exhibit 2.1 The corrections do not change the conclusions drawn from the map. we apologize for these errors, and would be more than happy to discuss if you would like to better understand the corrections.

Sincerely, Terracon

John Grams, P.G. (Texas) Senior Geologist

c: Barrett Bole, Apache Corp.

Joseph Guesnier

Environmental Department Manager

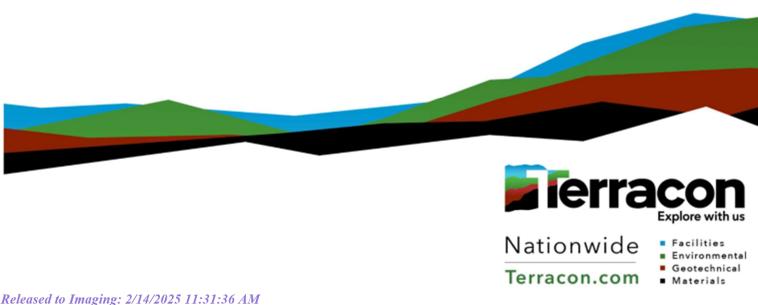
Attachment – 2024 Fourth Quarter Groundwater Monitoring Report

2024 Fourth Quarter Groundwater Monitoring Report - revised

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

January 23, 2025 | Project No. KH247030

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





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

January 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: 2024 Fourth Quarter Groundwater Monitoring Report - revised

East Blinebry Drinkard Unit (EBDU) #37

Lea County, New Mexico

Terracon Project No. KH247030

Dear Mr. Bole:

Terracon Consultants, Inc. (Terracon) is pleased to submit the enclosed 2024 Fourth Quarter Groundwater Monitoring Report (GMR) completed for the East Blinebry Drinkard Unit (EBDU) #37 project site in Lea County, New Mexico. The work reported includes one groundwater monitoring event completed October 23 through November 6, 2024

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

Joseph Guesnier

Environmental Department Manager

ment Manager Senior Geologist

Jh Ms

John Grams, PG (TX)

Enclosure

2024 Fourth Quarter Groundwater Monitoring Report - revised East Blinebry Drinkard Unit (EBDU) #37 | Lea County, New Mexico January 23, 2025 | Terracon Project No. KH247030



Table of Contents

rable	e of Contents	
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

TABLES

Table 1 – Groundwater Gauging Measurements

Table 2 – Summary of Groundwater Analytical Results

Table 3 – Summary of Human Health Standards

FIGURES

Figure 1.0 – Site Location Map

Figure 1.1 – Monitoring Well Location Map

Figure 2.1 – Groundwater Gradient Map October 2024

Figure 3.1 – Chloride Concentration Map October 2024

Figure 4.1 – TDS Concentration Map October 2024

APPENDICES

Appendix A – Laboratory Data Packages

2024 Fourth Quarter Groundwater Monitoring Report - revised
East Blinebry Drinkard Unit (EBDU) #37 | Lea County, New Mexico
January 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 October and November 2024. For this work Terracon gauged and sampled groundwater in a Windmill Well and monitoring wells TMW-1 through TMW-24 between October 27th to November 6th. Groundwater samples were analyzed for chloride and Total Dissolved Solids (TDS) in monitoring wells TMW-1 through TMW-24. Samples from monitoring wells TMW-1, TMW-3, and TMW-21 were sampled for barium and TMW-17 was 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 Figure 1.1.

This Groundwater Monitoring Report (GMR) includes tables presenting depth to water measurements and groundwater analytical results; exhibits illustrating the site location, well locations, groundwater gradient and chemical detections at each sampling location; and conclusions and recommendations from the site activities.

2.0 Introduction

Terracon Consultants, Inc. (Terracon), on behalf of Apache Corporation (Apache), has prepared this report for submittal to the New Mexico Oil Conservation Division (NMOCD) District I in Hobbs and Santa Fe, New Mexico. This report presents groundwater monitoring results for a sampling event which occurred October 23, 204 through November 6, 2024 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°. Figure 1.0 presents a site location map. Figure 1.1 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 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.

2024 Fourth Quarter Groundwater Monitoring Report - revised East Blinebry Drinkard Unit (EBDU) #37 | Lea County, New Mexico January 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. The a 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 yrds3 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

3.0 Field Activities

Water Level Measurements

Depth to water and total depth of the monitoring well were measured utilizing an electronic water level meter. Depth to groundwater for the October 2024 sampling event ranged from 51.12 feet below grade surface (bgs) (TMW-1) to 69.06 feet bgs (TMW-22). A summary of the groundwater gauging data is presented in Table 1.

The groundwater potentiometric surface as measured on October 23, 2024 is depicted in Figure 3.1. Groundwater flow is generally to the southwest with a gradient of approximately 0.0014 ft/ft, which is generally consistent with past monitoring data. The map suggests groundwater mounding near TWM-4, which was not present on previous monitoring events. Additional work is required to understand if this is an actual area of higher groundwater elevations or an artifact of the measurements on that date.

Sampling Collection and Handling

Groundwater samples were collected from all but four of the monitoring wells using Hydrasleeve TM passive samplers. The Hydrasleeve TM samplers were set at the mid-point of the water column in each well 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 TM into laboratory-supplied sample containers.

The groundwater samples from TMW-19, TMW-21, and TMW-24 were collected using low-flow techniques. The Hydrasleeve[™] was not used at these wells either because a large volume of water

2024 Fourth Quarter Groundwater Monitoring Report - revised
East Blinebry Drinkard Unit (EBDU) #37 | Lea County, New Mexico
January 23, 2025 | Terracon Project No. KH247030



was required for the desired analyses (TMW-17), or because there was insufficient water recovered by the HydrasleeveTM. For the three wells sampled by low-flow techniques, 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.

TMW-17 has historically shown chloride concentrations higher than the other wells at the site. In order to ensure this well had been fully developed the well was purged of approximately 25 gallons of water, which is approximately 12 well volumes. The groundwater sample was collected after purging the well.

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.

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.

Laboratory Analytical Methods

The groundwater samples collected from TMW-2, TMW-4 through TMW-16 and TMW-18 through TMW-24 were analyzed for chloride using EPA method 300.0 and TDS using EPA method SM 2540C.

The groundwater samples collected from TMW-1, TMW-3, and TMW-21 were analyzed for chloride using EPA method 300.0, total dissolved solids (TDS) using EPA method SM 2540C, and barium using Method SW846 6020B.

The groundwater sample collected from TMW-17 was analyzed for NMAC Human Health Standards 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, 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.

2024 Fourth Quarter Groundwater Monitoring Report - revised East Blinebry Drinkard Unit (EBDU) #37 | Lea County, New Mexico January 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 October 2024 sampling event, with concentrations ranging from 128 milligrams per liter (mg/L) in TMW-1 to 14,900 mg/L 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-3, and TMW-16.

Total dissolved solids (TDS) were detected above laboratory RLs in every well sampled during the October 2024 sampling event. TDS concentrations ranged from 632 mg/L in TMW-1 to 24,900 mg/L 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-3, and TMW-16.

Barium was sampled in TMW-1, TMW-3, and TMW-21 during the October 2024 sampling event, with results reported at 0.285 mg/L, 0952 mg/L, and 0.048 mg/L respectively. All the barium samples were above laboratory RLs but below the NMWQCC applicable standard of 2 mg/L.

TMW-17 was analyzed for NMAC Human Health Standards during the October 2024 sampling event. There were no detections above laboratory RLs for VOCs, SVOCs, PCBs, Radium-226, or Radium-228. Detections in TMW-17 above laboratory RLs include; nitrate (8.21 mg/L), sulfate (715 mg/L), chloride (14,900 mg/L), aluminum (0.0813 mg/L), arsenic (0.00212 mg/L), barium (0.204 mg/L), boron (1.84 mg/L), chromium (0.00122 mg/L), iron (0.0418 mg/L), manganese (0.00473 mg/L), molybdenum (0.000686 mg/L), nickel (0.00114 mg/L), selenium (0.0227 mg/L), uranium (0.0131 mg/L), mercury (0.000361 mg/L), total phenols (0.247 mg/L), total cyanide (0.686 mg/L), and TDS (24,900 mg/L). All detected analytes were below regulatory standards excluding total cyanide, chloride, total phenols, sulfate, TDS, and boron.

TABLES

Table 1 – Groundwater Gauging Measurements

Table 2 – Summary of Groundwater Analytical Results

Table 3 – Summary of Human Health Standards



Table 1 - Groundwater Gauging Measurements EBDU 37 32.480758, -103.120642 Terracon Project No. KH247030



Well No.	Date Drilled	Well Depth (Feet TOC)	Drilled Depth (Feet	Well Diameter	Surface Elevation	Screen Interval (Feet BGS)	Casing Stickup	TOC Elevation	Date Gauged	Depth to Water (feet	Depth to Water (feet	Water Column	Groundwater Elevation (feet
	Dr.mod	(1001100)	BGS)	(inches)	(Feet AMSL)	(1 001 200)	(Feet)	(Feet AMSL)		TOC)	BGS)	Height	AMSL)
73.037.4	0/40/0040	45.05	(0.50		0.444.04	10.00 (1.07	0.04	0.111.57	0.100.1001.0	1/ 10	40.00	(feet)	0.040.00
TMW-1	9/19/2019	65.85	62.50	2	3,411.21	42.32 - 61.97	3.36	3,414.57	9/23/2019	46.18	42.82	19.67	3,368.39
TMW-1									12/26/2019	48.90	45.54	16.95	3,365.67
TMW-1									9/30/2020	49.31	45.95	16.54	3,365.26
TMW-1									12/7/2020	49.42	46.06	16.43	3,365.15
TMW-1									3/11/2021	49.41	46.05	16.44	3,365.16
TMW-1									6/10/2021	49.67	46.31	16.18	3,364.90
TMW-1									10/11/2021	50.90	47.54	14.95	3,363.67
TMW-1									12/22/2021	49.95	46.59	15.90	3,364.62
TMW-1									3/1/2022	49.92	46.56	15.93	3,364.65
TMW-1									5/23/2022	50.25	46.89	15.60	3,364.32
TMW-1									8/16/2022	50.64	47.28	15.21	3,363.93
TMW-1									12/15/2022	50.18	46.82	15.67	3,364.39
TMW-1									3/14/2023	50.16	46.80	15.69	3,364.41
TMW-1									6/22/2023	47.09	43.73	18.76	3,367.48
TMW-1									9/6/2023	50.31	46.95	15.54	3,364.26
TMW-1									12/21/2023	50.27	46.91	15.58	3,364.30
TMW-1									3/14/2024	50.14	46.78	15.71	3,364.43
TMW-1									10/23/2024	51.09	47.73	14.76	3,363.48
TMW-1		65.66							11/6/2024	51.12	47.76	14.73	3,363.45
TMW-2	9/19/2019	70.85	80.00	2	3,421.30	47.50 - 67.17	2.86	3,424.16	9/23/2019	55.80	52.94	15.05	3,368.36
TMW-2									12/26/2019	57.50	54.64	13.35	3,366.66
TMW-2									9/30/2020	58.01	55.15	12.84	3,366.15
TMW-2									12/7/2020	58.08	55.22	12.77	3,366.08
TMW-2									3/11/2021	58.00	55.14	12.85	3,366.16
TMW-2									6/10/2021	58.12	55.26	12.73	3,366.04
TMW-2									10/11/2021	58.54	55.68	12.31	3,365.62
TMW-2									12/22/2021	58.50	55.64	12.35	3,365.66
TMW-2									3/1/2022	58.48	55.62	12.37	3,365.68
TMW-2									5/23/2022	58.62	55.76	12.23	3,365.54
TMW-2									8/16/2022	58.98	56.12	11.87	3,365.18
TMW-2									12/15/2022	58.76	55.90	12.09	3,365.40
TMW-2									3/14/2023	58.70	55.84	12.15	3,365.46
TMW-2									6/22/2023	58.27	55.41	12.58	3,365.89
TMW-2									9/6/2023	59.05	56.19	11.80	3,365.11
TMW-2									12/21/2023	58.95	56.09	11.90	3,365.21
TMW-2									3/14/2024	58.86	56.00	11.99	3,365.30
TMW-2									10/23/2024	59.55	56.69	11.30	3,364.61
TWM-3	9/29/2020	71.29	68.41	2	3,420.33	49.96 - 69.76	2.88	3,423.21	9/23/2019				
TWM-3									12/26/2020				
TWM-3									9/30/2020	57.62	54.74	13.67	3,365.59
TWM-3									12/7/2020	57.68	54.80	13.61	3,365.53
TWM-3									3/11/2021	57.59	54.71	13.70	3,365.62
TWM-3									6/10/2021	57.90	55.02	13.39	3,365.31
TWM-3									10/11/2021	58.31	55.43	12.98	3,364.90
TWM-3									12/22/2021	58.18	55.30	13.11	3,365.03
TWM-3									3/1/2022	58.14	55.26	13.15	3,365.07
TWM-3									5/23/2022	58.41	55.53	12.88	3,364.80
TWM-3									8/16/2022	58.87	55.99	12.42	3,364.34
TWM-3									12/15/2022	58.44	55.56	12.85	3,364.77
TWM-3									3/14/2023	58.36	55.48	12.93	3,364.85
TWM-3									6/22/2023	57.53	54.65	13.76	3,365.68
TWM-3									9/6/2023	58.85	55.97	12.44	3,364.36
TWM-3									12/21/2023	58.61	55.73	12.68	3,364.60
TWM-3									3/14/2024	58.47	55.59	12.82	3,364.74
TWM-3									10/23/2024	59.35	56.47	11.94	3,363.86



Table 1 - Groundwater Gauging Measurements EBDU 37 32.480758, -103.120642 Terracon Project No. KH247030



Well No.	Date Drilled	Well Depth (Feet TOC)	Drilled Depth (Feet BGS)	Well Diameter (inches)	Surface Elevation (Feet AMSL)	Screen Interval (Feet BGS)	Casing Stickup (Feet)	TOC Elevation (Feet AMSL)	Date Gauged	Depth to Water (feet TOC)	Depth to Water (feet BGS)	Water Column Height (feet)	Groundwater Elevation (feet AMSL)
TMW-4	9/29/2020	73.25	70.09	2	3,420.03	49.96 - 69.76	3.16	3,423.19	9/23/2019				
TMW-4									12/26/2019				
TMW-4									9/30/2020	57.39	54.23	15.86	3,365.80
TMW-4									12/7/2020	57.45	54.29	15.80	3,365.74
TMW-4									3/11/2021	57.40	54.24	15.85	3,365.79
TMW-4									6/10/2021	57.60	54.44	15.65	3,365.59
TMW-4 TMW-4									10/11/2021 12/22/2021	57.99 57.90	54.83 54.74	15.26 15.35	3,365.20 3,365.29
TMW-4									3/1/2022	57.90	54.74	15.38	3,365.32
TMW-4									3/29/2022	57.89	54.73	15.36	3,365.30
TMW-4									5/23/2022	58.05	54.89	15.20	3,365.14
TMW-4									8/16/2022	58.48	55.32	14.77	3,364.71
TMW-4									12/15/2022	58.15	54.99	15.10	3,365.04
TMW-4									3/14/2023	58.07	54.91	15.18	3,365.12
TMW-4									6/22/2023	57.28	54.12	15.97	3,365.91
TMW-4									9/6/2023	58.45	55.29	14.80	3,364.74
TMW-4									12/20/2023	58.31	55.15	14.94	3,364.88
TMW-4									3/14/2024	58.19	55.03	15.06	3,365.00
TMW-4									10/23/2024	57.51	54.35	15.74	3,365.68
TMW-5	11/28/2022	78.59	75.50	2	3,418.91	54.37 - 74.32	2.95	3,421.86	12/15/2022	57.91	54.96	20.68	3,363.95
TMW-5									3/14/2023	57.27	54.32	21.32	3,364.59
TMW-5									6/22/2023	55.63	52.68	22.96	3,366.23
TMW-5									9/6/2023	57.63	54.68	20.96	3,364.23
TMW-5									12/20/2023	57.49	54.54	21.10	3,364.37
TMW-5									3/14/2024	57.55	54.60	21.04	3,364.31
TMW-5	11/20/2022	72.10	73.00	2	3,424.13	54.37 - 74.32	2.42	2.427.55	10/23/2024	58.20 62.17	55.25 59.75	20.39 9.93	3,363.66
TMW-6 TMW-6	11/28/2022	72.10	73.00	2	3,424.13	54.37 - 74.32	2.42	3,426.55	12/15/2022 3/14/2023	62.17	59.75 59.66	10.02	3,364.38 3,364.47
TMW-6									6/22/2023	61.41	58.99	10.69	3,365.14
TMW-6									9/6/2023	61.95	59.53	10.07	3,364.60
TMW-6									12/20/2023	61.88	59.46	10.13	3,364.67
TMW-6									3/14/2024	61.79	59.37	10.31	3,364.76
TMW-6									10/23/2024	62.29	59.87	9.81	3,364.26
TMW-7	6/13/2023	83.85	80.99	2	3,423.07	61.29 - 80.78	2.86	3,425.93	6/19/2023	60.35	57.49	23.50	3,365.58
TMW-7									6/22/2023	63.34	60.48	20.51	3,362.59
TMW-7									9/6/2023	60.98	58.12	22.87	3,364.95
TMW-7									12/20/2023	60.91	58.05	22.94	3,365.02
TMW-7									3/14/2024	60.81	57.95	23.04	3,365.12
TMW-7									10/23/2024	61.25	58.39	22.60	3,364.68
TMW-8	6/12/2023	76.55	73.75	2	3,417.28	53.83 - 73.74	2.80	3,420.08	6/20/2023	54.04	51.24	22.51	3,366.04
TMW-8									6/22/2023	54.02	51.22	22.53	3,366.06
TMW-8									9/6/2023	55.39	52.59	21.16	3,364.69
TMW-8									12/20/2023	55.23	52.43	21.32	3,364.85
TMW-8									3/14/2024	55.12	52.32	21.43	3,364.96
TMW-8	4/12/2022	71.00	40.00	2	2.414./2	40 41 40 72	2.07	2 417 40	10/23/2024	55.59	52.79	20.96	3,364.49
TMW-9 TMW-9	6/13/2023	71.90	69.03	2	3,414.62	49.41 - 68.72	2.87	3,417.49	6/21/2023	51.11	48.24	20.79	3,366.38
TMW-9									6/22/2023 9/6/2023	51.14 53.66	48.27 50.79	20.76 18.24	3,366.35 3,363.83
TMW-9									9/6/2023 12/21/2023	53.55	50.79	18.24	3,363.83
TMW-9									3/14/2024	53.55	50.68	18.45	3,364.04
TMW-9									10/23/2024	54.36	51.49	17.54	3,363.13
TMW-10	6/14/2023	72.76	69.81	2	3,415.26	49.68 - 68.99	2.95	3,418.21	6/20/2023	51.57	48.62	21.19	3,366.64
TMW-10				-	.,			.,	6/22/2023	51.61	48.66	21.15	3,366.60
TMW-10									9/6/2023	54.21	51.26	18.55	3,364.00
TMW-10									12/21/2023	54.12	51.17	18.64	3,364.09
TMW-10									3/14/2024	54.02	51.07	18.74	3,364.19
TMW-10	<u></u>	<u>L</u>	<u> </u>			<u> </u>	<u></u>		10/23/2024	54.90	51.95	17.86	3,363.31
TMW-11	11/29/2023	76.75	73.95	2	3,421.56	53.30 - 73.27	2.80	3,424.35	12/21/2023	59.92	57.12	16.83	3,364.43
TMW-11									3/14/2024	58.85	56.05	17.90	3,365.50
TMW-11			<u> </u>						10/23/2024	59.50	56.70	17.25	3,364.85
TMW-12	11/30/2023	85.73	82.81	2	3,424.30	60.16 - 82.13	2.92	3,427.22	12/21/2023	61.65	58.73	24.08	3,365.57
TMW-12									3/14/2024	61.57	58.65	24.16	3,365.65
TMW-12									10/23/2024	62.00	59.08	23.73	3,365.22
TMW-13	12/4/2023	86.67	83.90	2	3,426.21	63.24 - 83.21	2.77	3,428.98	12/20/2023	63.75	60.98	22.92	3,363.47
TMW-13									3/14/2024	63.68	60.91	22.99	3,363.54
TMW-13	1	1			1	I	1	1	10/23/2024	64.07	61.30	22.60	3,364.91



Table 1 - Groundwater Gauging Measurements EBDU 37 32.480758, -103.120642 Terracon Project No. KH247030



Well No.	Date Drilled	Well Depth (Feet TOC)	Drilled Depth (Feet BGS)	Well Diameter (inches)	Surface Elevation (Feet AMSL)	Screen Interval (Feet BGS)	Casing Stickup (Feet)	TOC Elevation (Feet AMSL)	Date Gauged	Depth to Water (feet TOC)	Depth to Water (feet BGS)	Water Column Height (feet)	Groundwater Elevation (feet AMSL)
TMW-14	12/1/2023	88.64	85.61	2	3,426.78	64.96 - 84.93	2.76	3,429.54	12/20/2023	65.02	62.26	23.62	3,364.52
TMW-14									3/14/2024	64.99	62.23	23.65	3,364.55
TMW-14									10/23/2024	63.35	60.59	25.29	3,364.19
TMW-15	11/30/2023	83.14	79.62	2	3,423.18	58.97 - 78.94	2.79	3,425.97	12/20/2023	61.79	59.00	21.35	3,364.18
TMW-15									3/14/2024	61.71	58.92	21.43	3,364.26
TMW-15									10/23/2024	62.19	59.40	20.95	3,363.78
TMW-16	11/29/2023	84.82	81.79	2	3,420.73	59.14 - 81.11	2.92	3,423.65	12/20/2023	60.19	57.27	24.63	3,363.46
TMW-16									3/14/2024	60.08	57.16	24.74	3,363.57
TMW-16									10/23/2024	60.74	57.82	24.08	3,362.91
TMW-17	11/28/2023	84.68	81.46	2	3,422.52	60.81 - 80.78	3.16	3,425.68	12/20/2023	61.56	58.40	23.12	3,364.12
TMW-17									3/14/2024	61.43	58.27	23.25	3,364.25
TMW-17									10/23/2024	62.05	58.89	22.63	3,363.63
TMW-18	12/5/2023	88.57	85.05	2	3,422.29	64.57 - 84.51	3.32	3,425.61	12/20/2023	62.15	58.83	26.42	3,363.46
TMW-18									3/14/2024	62.01	58.69	26.56	3,363.60
TMW-18									10/23/2024	62.55	59.23	26.02	3,363.06
TMW-19	12/5/2023	83.50	80.31	2	3,420.79	59.66 - 79.63	2.99	3,423.78	12/20/2023	60.92	57.93	22.58	3,362.86
TMW-19									3/14/2024	61.90	58.91	21.60	3,361.88
TMW-19									10/23/2024	61.35	58.36	22.15	3,362.43
TMW-19		83.64							11/5/2024	61.42	58.43	22.08	3,362.36
TMW-20	12/6/2023	77.50	74.52	2	3,426.46	53.90 - 73.87	2.88	3,429.34	12/20/2023	65.26	62.38	12.24	3,364.08
TMW-20									3/14/2024	65.21	62.33	12.29	3,364.13
TMW-20									10/23/2024	65.59	62.71	11.91	3,363.75
TMW-21	12/7/2023	74.22	71.80	2	3,429.87	51.15 - 71.12	2.33	3,432.20	12/20/2023	67.31	64.98	6.91	3,364.89
TMW-21									3/14/2024	67.29	64.96	6.93	3,364.91
TMW-21									10/23/2024	67.52	65.19	6.70	3,364.68
TMW-21		74.76							11/6/2024	67.57	65.24	6.65	3,364.63
TMW-22	12/7/2023	73.01	70.02	2	3,431.29	49.37 - 69.34	2.89	3,434.17	12/20/2023	68.86	65.97	4.15	3,365.31
TMW-22									3/14/2024	68.85	65.96	4.16	3,365.32
TMW-22									10/23/2024	69.06	66.17	3.95	3,365.11
TMW-23	12/13/2023	72.34	69.35	2	3,421.28	48.69 - 68.66	2.95	3,424.23	12/20/2023	61.51	58.56	10.83	3,362.72
TMW-23									3/14/2024	61.39	58.44	10.95	3,362.84
TMW-23									10/23/2024	61.91	58.96	10.43	3,362.32
TMW-24	12/13/2023	63.02	59.98	2	3,418.54	39.33 - 59.30	3.20	3,421.74	12/20/2023	59.41	56.21	3.61	3,362.33
TMW-24									3/14/2024	59.28	56.08	3.74	3,362.46
TMW-24									10/23/2024	59.83	56.63	3.19	3,361.91
TMW-24		63.23							11/5/2024	59.89	56.69	3.13	3,361.85

Notes:

Monitoring wells installed by Scarborough Drilling Inc., Lamesa, Texas, with 2-inch schedule 40 PVC casing and screen.

bgs: below ground surface TOC: top of casing

AMSL: above mean sea level



Table 2 - Summary of Groundwater Analytical Results EBDU 37 32.480758, -103.120642 Terracon Project No. KH247030



Sample	Collection Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Chloride (mg/L)	TDS (mg/L)	Barium (mg/L)
NWWQCC Standard.		*0.005	*1	*0.7	*0.62	**250	**1,000	2.0
Windmill	08/01/2019	<0.001	<0.001	<0.001	<0.003	232	732	
	09/23/2019							
	12/26/2019	<0.000800	<0.00200	<0.00200	<0.00200	259	688	
	09/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	274	730	
	12/07/2020	<0.00200	<0.00200	<0.00200	<0.00200	287	930	
	03/11/2021	<0.00200	<0.00200	<0.00200	<0.00400	252	745	
	06/10/2021	<0.00200	<0.00200	<0.00200	<0.00400	255	781	
	10/11/2021	<0.00200	<0.00200	<0.00200	<0.00400	251	800	
	12/22/2021	<0.00200	<0.00200	<0.00200	<0.00400	246	751	
	03/03/2022	<0.00200	<0.00200	<0.00200	<0.00400	256	828	
	05/23/2022	<0.00200	<0.00200	<0.00200	<0.00400	222	738	
	08/16/2022	<0.00200	<0.00200	<0.00200	<0.00400	256	1,190	
	12/15/2022	<0.00100	<0.00100	<0.00100	<0.00100	198	508	
	03/14/2023	<0.00100	<0.00100	<0.00100	<0.00100	401	1,130	
	06/22/2023	<0.00200	<0.00200	<0.00200	<0.00200	276	852	
	09/07/2023	<0.00200	<0.00200	<0.00400	<0.00400	350	981	
	12/20/2023	<0.00200	<0.00200	<0.00200	<0.00400	409	1,010	
	03/14/2024	<0.00200	<0.00200	<0.00200	<0.00400	471	1,080	
	04/03/2024							2.18
	05/02/2024							0.220
	10/28/2024					540	2,030	
TMW-1	09/23/2019	<0.00800	<0.00200	<0.00200	<0.00200	37.4	400	
	12/26/2019	<0.008000	<0.00200	<0.00200	<0.00200	21.1	390	
	09/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	22.6	390	
	12/07/2020	<0.00200	<0.00200	<0.00200	<0.00200	13.1	383	
	03/11/2021	<0.00200	<0.00200	<0.00200	<0.00400	10.9	360	
	06/10/2021	<0.00200	<0.00200	<0.00200	<0.00400	14.5	360	
	10/11/2021	<0.00200	<0.00200	<0.00200	<0.00400	17.5	358	
	12/22/2021	<0.00200	<0.00200	<0.00200	<0.00400	10.3	391	
	03/01/2022	<0.00200	<0.00200	<0.00200	<0.00400	13.2	343	
	05/23/2022	<0.00200	<0.00200	<0.00200	<0.00400	26.0	369	
	08/16/2022	<0.00200	<0.00200	<0.00200	<0.00400	50.3	404	
	12/15/2022	<0.00100	<0.00100	<0.00100	<0.00100	21.4	216	
	03/14/2023	<0.00100	<0.00100	<0.00100	<0.00100	41.9	358	
	06/22/2023	<0.00200	<0.00200	<0.00200	<0.00200	275	845	
	09/06/2023	<0.00200	<0.00200	<0.00200	<0.00400	277	830	
	12/21/2023	<0.00100	<0.00100	<0.00100	<0.0100	156	662	
	03/14/2024	<0.00200	<0.00200	<0.00200	<0.00404	136	551	
	05/02/2024							0.445
	11/06/2024					128	632	0.285



Table 2 - Summary of Groundwater Analytical Results EBDU 37 32.480758, -103.120642 Terracon Project No. KH247030



Sample	Collection Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Chloride (mg/L)	TDS (mg/L)	Barium (mg/L)
NWWQCC Standard		*0.005	*1	*0.7	*0.62	**250	**1,000	2.0
TMW-2	09/23/2019	<0.00800	<0.00200	<0.00200	<0.00200	338	1,220	
	12/26/2019	<0.000800	<0.00200	<0.00200	<0.00200	307	1,170	
	09/30/2020	<0.00200	0.00227	<0.00200	<0.00200	314	1,040	
	12/07/2020	<0.00200	<0.00200	<0.00200	<0.00200	298	1,050	
	03/11/2021	<0.00200	<0.00200	<0.00200	<0.00400	293	1,000	
	06/10/2021	<0.00200	<0.00200	<0.00200	<0.00400	267	1,050	
	10/11/2021	<0.00200	<0.00200	<0.00200	<0.00400	263	1,030	
	12/22/2021	<0.00200	<0.00200	<0.00200	<0.00400	284	1,270	
	03/01/2022	<0.00200	<0.00200	<0.00200	<0.00400	282	1,030	
	05/23/2022	<0.00200	<0.00200	<0.00400	<0.00400	256	1,070	
	08/16/2022	<0.00200	<0.00200	<0.00400	<0.00400	239	940	
	12/15/2022	<0.00100	<0.00100	<0.00100	<0.00100	195	985	
	03/14/2023	<0.00100	<0.00100	<0.00100	<0.00100	211	1,060	
	06/22/2023	<0.00200	<0.00200	<0.00200	<0.00200	248	1,120	
	09/06/2023	<0.00200	<0.00200	<0.00200	<0.00400	270	1,050	
	12/21/2023	<0.00100	<0.00100	<0.00100	<0.0100	264	1,100	
	03/14/2024	<0.00200	<0.00200	<0.00200	<0.00400	249	992	
	10/24/2024					276	1,020	
TMW-3	09/23/2019							
	12/26/2019							
	09/30/2020	<0.00200	0.00322	<0.00200	0.00448	212	891	
	12/07/2020	<0.00200	<0.00200	<0.00200	<0.00200	214	948	
	03/11/2021	<0.00200	<0.00200	<0.00200	<0.00400	213	900	
	06/10/2021	<0.00200	<0.00200	<0.00200	<0.00400	180	934	
	10/11/2021	<0.00200	<0.00200	<0.00200	<0.00400	192	967	
	12/22/2021	<0.00200	<0.00200	<0.00200	<0.00400	211	949	
	03/01/2022	<0.00200	<0.00200	<0.00200	<0.00400	233	944	
	05/23/2022	<0.00200	<0.00200	<0.00200	<0.00400	202	955	
	08/16/2022	<0.00200	<0.00200	<0.00200	<0.00400	245	1,100	
	12/15/2022	<0.00100	<0.00100	<0.00100	<0.00100	175	808	
	03/14/2023	<0.00100	<0.00100	<0.00100	<0.00100	233	940	
	06/22/2023	<0.00200	<0.00200	<0.00200	<0.00200	229	1,020	
	09/06/2023	<0.00200	<0.00200	<0.00200	<0.00400	240	1,010	
	12/21/2023	<0.00100	<0.00100	<0.00100	<0.0100	242	1,020	
	03/14/2024	<0.00200	<0.00200	<0.00200	<0.00400	234	959	
	05/02/2024							0.0299
	11/06/2024					183	889	0.0952
TMW-4	09/23/2019							
	12/26/2019							
	09/30/2020	<0.00200	0.00314	<0.00200	<0.00200	1,020	2,040	
	12/07/2020	<0.00200	<0.00200	<0.00200	<0.00200	987	2,300	
	03/11/2021	<0.00200	<0.00200	<0.00200	<0.00400	834	1,960	
	06/11/2021	<0.00200	<0.00200	<0.00200	<0.00400	745	1,990	
	10/11/2021	<0.00200	<0.00200	<0.00200	<0.00400	689	1,990	
	12/22/2021	<0.00200	<0.00200	<0.00200	<0.00400	735	2,180	
	03/01/2022	<0.00200	<0.00200	<0.00200	<0.00400	1,610	2,080	
	03/29/2022	<0.00200	<0.00200	<0.00200	0.00700	547	1,930	
	05/23/2022	<0.00200	<0.00200	<0.00200	<0.00400	522	1,930	
	08/16/2022	<0.00200	<0.00200	<0.00200	<0.00400	684	2,000	
	12/15/2022	<0.00100	<0.00100	<0.00100	<0.00100	486	1,940	
	03/14/2023	<0.00100	<0.00100	<0.00100	<0.00100	703	1,850	
	06/22/2023	<0.00200	<0.00200	<0.00200	<0.00200	673	1,900	
	09/06/2023	<0.00200	<0.00200	<0.00200	<0.00400	625	1,810	
	12/20/2023	<0.00200	<0.00200	<0.00200	<0.00400	598	1,750	
	03/14/2024	<0.00200	<0.00200	<0.00200	<0.00400	580	1,750	
1	10/24/2024					612	1,760	



Table 2 - Summary of Groundwater Analytical Results EBDU 37 32.480758, -103.120642 Terracon Project No. KH247030



Sample	Collection	Benzene	Toluene	Ethylbenzene	Xylenes	Chloride	TDS	Barium
Sample	Date	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
NWWQCC Standard		*0.005	*1	*0.7	*0.62	**250	**1,000	2.0
TMW-5	12/15/2022	<0.00100	<0.00100	<0.00100	<0.00100	1,170	4,950	
	03/14/2023	<0.00100	<0.00100	<0.00100	<0.00100	2,890	5,200	
	06/22/2023	<0.00200	<0.00200	<0.00200	<0.00200	2,790	5,380	
	09/06/2023	<0.00200	<0.00200	<0.00200	<0.00400	2,700	4,590	
	12/20/2023	<0.00200	<0.00200	<0.00200	<0.00400	2,320	4,250	
	03/14/2024	<0.00200	<0.00200	<0.00200	<0.00400	2,980	5,360	
	10/24/2024					3,990	10,200	
TMW-6	12/15/2022	<0.00100	<0.00100	<0.00100	<0.00100	941	3,160	
	03/14/2023	<0.00100	<0.00100	<0.00100	<0.00100	2,270	3,200	
	06/22/2023	<0.00200	<0.00200	<0.00200	<0.00200	1,550	3,260	
	09/06/2023	<0.00200	<0.00200	<0.00200	<0.00400	1,630	2,820	
	12/20/2023	<0.00200	<0.00200	<0.00200	<0.00400	1,570	3,070	
	03/14/2024	<0.00200	<0.00200	<0.00200	<0.00400	1,500	3,280	
	10/24/2024					1,330	11,700	
TMW-7	06/22/2023	<0.00200	<0.00200	< 0.00200	<0.00200	1,770	3,980	
	09/06/2023	<0.00200	<0.00200	<0.00200	<0.00400	1,870	3,880	
	12/20/2023	<0.00200	<0.00200	<0.00200	<0.00400	1,770	3,720	
	03/14/2024	<0.00200	<0.00200	<0.00200	<0.00400	1,740	3,690	
	10/24/2024					1,100	3,020	
TMW-8	06/22/2023	<0.00200	<0.00200	<0.00200	<0.00200	974	2,410	
	09/06/2023	<0.00200	<0.00200	<0.00200	<0.00400	1,130	2,470	
	12/20/2023	<0.00200	<0.00200	<0.00200	<0.00200	709	1,840	
	03/14/2024	<0.00200	<0.00200	<0.00200	<0.00400	655	1,830	
	10/24/2024					570	1,680	
TMW-9	06/22/2023	<0.00200	<0.00200	<0.00200	<0.00200			
110100-7	09/06/2023	<0.00200	<0.00200	<0.00200	<0.00200	18.0	373	
	12/21/2023	<0.00200	<0.00200	<0.00200	<0.0100	41.8	390	
	03/12/2024	<0.00100	<0.00100	<0.00100	<0.0100	37.3	404	
	10/24/2024	<0.00200	<0.00200	<0.00200	<0.00400	29.3	373	
TN 414/ 10			0.00000		0.00000	65.5	493	
TMW-10	06/22/2023	<0.00200	<0.00200	<0.00200	<0.00200	9.89	525	
	09/06/2023	<0.00200	<0.00200	<0.00200	<0.00400	67.0	514	
	12/21/2023	<0.00100	<0.00100	<0.00100	<0.0100	114.0	666	
	03/14/2024	<0.00200	<0.00200	<0.00200	<0.00400	17.9	405	
	10/24/2024					208	1,030	
TMW-11	12/21/2023	<0.00100	<0.00100	<0.00100	<0.0100	350	1,190	
	3/14/2024	<0.00200	<0.00200	<0.00200	<0.00400	318	1,090	
	10/24/2024					423	1,310	
TMW-12	12/21/2023	<0.00100	<0.00100	<0.00100	<0.0100	463	1,520	
	3/14/2024	<0.00200	<0.00200	<0.00200	<0.00400	448	1,390	
	10/24/2024					458	1,520	
TMW-13	12/20/2023	<0.00200	<0.00200	<0.00200	<0.00400	1,730	3,680	
	3/14/2024	<0.00200	<0.00200	<0.00200	<0.00400	1,690	3,480	
	10/24/2024					1,580	3,650	
TMW-14	12/20/2023	<0.00200	<0.00200	<0.00200	<0.00400	2,500	5,140	
	3/15/2024	<0.00200	<0.00200	<0.00200	<0.00400	1,810	2,820	
	10/24/2024					7,790	14,500	
TMW-15	12/20/2023	<0.00200	<0.00200	<0.00200	<0.00400	2,120	3,870	
	3/15/2024	<0.00200	<0.00200	<0.00200	<0.00400	2,160	3,400	
	10/24/2024					7,160	14,400	
TMW-16	12/20/2023	<0.00200	<0.00200	<0.00200	<0.00400	85.5	495	
	3/15/2024	<0.00200	<0.00200	<0.00200	<0.00400	43.0	380	
	10/24/2024					171	919	
TMW-17	12/20/2023	<0.00200	<0.00200	<0.00200	<0.00400	5,850	10,300	
	3/15/2024	<0.00200	<0.00200	<0.00200	<0.00400	5,680	8,930	
	11/5/2024	<0.000460	<0.000475	<0.000385	<0.00124	14,900	24,900	0.204



Table 2 - Summary of Groundwater Analytical Results

EBDU 37 32.480758, -103.120642 Terracon Project No. KH247030



Sample	Collection Date	Benzene	Toluene	Ethylbenzene	Xylenes	Chloride	TDS	Barium
A A A A A A A A		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
NWWQCC Standard TMW-18	12/20/2023	*0.005	*1	*0.7	*0.62	**250 2.050	**1,000 6.430	2.0
11/11/1-18		<0.00200	<0.00200	<0.00200	<0.00400			
	3/15/2024	<0.00200	<0.00200	<0.00200	<0.00400	908	1,650	
	10/24/2024					7,820	15,200	
TMW-19	12/20/2023	<0.00200	<0.00200	<0.00200	<0.00400	927	1,860	
	3/15/2024	<0.00200	<0.00200	<0.00200	<0.00400	553	1,070	
	11/5/2024					907	2,390	
TMW-20	12/20/2023	<0.00200	<0.00200	<0.00200	<0.00400	287	927	
	3/15/2024	<0.00200	<0.00200	<0.00200	<0.00400	385	937	
	10/24/2024					312	1,070	
TMW-21	12/20/2023	<0.00200	<0.00200	<0.00200	<0.00400	262	885	
	3/15/2024	<0.00200	<0.00200	<0.00200	<0.00400	310	902	
	5/2/2024							0.0471
	11/6/2024					284	1,040	0.0484
TMW-22	12/20/2023	<0.00200	<0.00200	<0.00200	<0.00400	270	939	
	3/15/2024	<0.00200	<0.00200	<0.00200	<0.00400	342	918	
	10/24/2024					289	1,080	
TMW-23	12/20/2023	<0.00200	<0.00200	<0.00200	<0.00400	895	1,980	
	3/15/2024	<0.00200	<0.00200	<0.00200	<0.00400	1,020	2,020	
	10/24/2024					1,010	3,270	
TMW-24	12/20/2023	<0.00200	<0.00200	<0.00200	<0.00400	271	1,050	
	3/15/2024	<0.00200	<0.00200	<0.00200	<0.00400	330	1,060	
	10/28/2024					289	1,070	
DUP-1 (Windmill)	09/30/2020	<0.00200	<0.00200	<0.00200	<0.00200	276	794	
DUP-1 (Windmill)	12/07/2020	<0.00200	<0.00200	<0.00200	<0.00200	278	908	
DUP-1 (Windmill)	03/11/2021	<0.00200	<0.00200	<0.00200	<0.00400	259	798	
DUP-1 (Windmill)	06/10/2021	<0.00200	<0.00200	<0.00200	<0.00400	256	781	
DUP-1 (Windmill)	10/11/2021	<0.00200	<0.00200	<0.00200	<0.00400	250	830	
DUP-1 (Windmill)	12/22/2021	<0.00200	<0.00200	<0.00200	<0.00400	243	796	
Dup-1 (TMW-2)	03/01/2022	<0.00200	<0.00200	<0.00200	<0.00400	297	1,010	
Dup-2 (Windmill)	03/03/2022	<0.00200	<0.00200	<0.00200	<0.00400	491	787	
Dup-1 (Windmill)	05/23/2022	<0.00200	<0.00200	<0.00200	<0.00400	215	729	
Dup-1 (Windmill)	08/16/2022	<0.00200	<0.00200	<0.00200	<0.00400	283	1,120	
Dup-1 (TMW-5)	12/15/2022	<0.00100	<0.00100	<0.00100	<0.00100	1,410	4,520	
Dup-1 (Windmill)	03/14/2023	<0.00100	<0.00100	<0.00100	<0.00100	413	1,130	
Dup-1 (Windmill)	06/22/2023	<0.00200	<0.00200	<0.00200	<0.00200	273	855	
Dup-1 (TMW-5)	09/06/2023	<0.00200	<0.00200	<0.00200	<0.00400	3,030	5,850	
Dup-1 (TMW-17)	12/20/2023	<0.00200	<0.00200	<0.00200	<0.00400	5,830	10,300	
Dup-2 (TMW-2)	12/21/2023	<0.00100	<0.00100	<0.00100	<0.0100	265	1,010	
Dup-1 (TMW-3)	03/14/2024	<0.00200	<0.00200	<0.00200	<0.00400	328	986	
Dup-2 (TMW-14)	03/15/2024	<0.00200	<0.00200	<0.00200	<0.00400	1,330	2,530	
Notes:	-37 1072021	.0.00200	.0.00200	10.00200		1,000	2,000	

^{(1):} analysis performed by Cardinal Laboratories, Hobbs, New Mexico, by EPA SW-846 Method 8021B (BTEX) and titration methods (chloride and TDS).

Highlighted and Bold represents results that exceed the NMWQCC applicable standard

^{(2):} analysis performed by DHL Analytical, Round Rock, Texas, by EPA SW-846 Method 8021B (BTEX) and Method 300 (chloride).

^{(3):} analysis performed by Xenco Laboratories, Midland, Texas, by EPA SW-846 Method 8021B (BTEX) and Method 300 (chloride).

^{(4):} anaylis performed by Eurofins-Xenco, Midland, Texas, by EPA SW-846 Method 8021B (BTEX) and Method 300 (chloride).

^{(5):} anaylis performed by Eurofins, Midland Texas by EPA Method SM 2540C (TDS), Method 300 (chloride), and EPA SW846 6020B (barium).

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

^{*:} NMWQCC Human Health Standard

^{**:} NMWQCC Domestic Water Quality Standard

Table 3 - Summary of Human Health Standards Analytical Results



EBDU 37 32.480758, -103.120642 Terracon Project No. KH247030



	20.6.2	.3103 NMAC - Humar	n Health Standard	ds		
	_	Regulatory Limit		Windmill Well		TMW-17
Α.	Parameter	(mg/L)	4/3/2024	5/2/2024	10/28/2024	11/5/2024
(a)	Antimony	0.006	<0.00400			
(b)	Arsenic	0.01	<0.00400			0.00212 J
(c)	Barium	2.0	2.18	*0.220		0.20400
(d)	Beryllium	0.004	<0.00200			
(e)	Cadmium	0.005	<0.00200			<0.000240
(f)	Chromium	0.05	<0.00400			0.00122 J
(g)	Cyanide	0.2	<0.00500			0.686
(h)	Fluoride	1.6	<1.00			<1.0
(i)	Lead	0.015	<0.00200			<0.00367
(j)	Mercury (Total)	0.002	<0.00200			0.000361
(k)	Nitrate	10.0	2.78			8.21
(I)	Nitrite	1.0	<0.100			<0.699
(m)	Selenium	0.05	<0.00200			0.0227
(n)	Silver	0.05	<0.00200			<0.00390
(0)	Thallium	0.002	<0.00200			<0.00185
. , ,	Uranium	0.002	0.00200			0.00165
(p)	Radioactivity (combined R226 and R228)	5.0	0.00315			U.0131
(q)	* :					_
(r)	Benzene	0.005	<0.00100			<0.000460
(s)	Polychlorinated biphenyls (PCB)	0.0005	<0.000262			<0.0000469
(t)	Toluene	1.0	<0.00100			<0.000475
(u)	Carbon Tetrachloride	0.005	<0.00500			<0.000896
(v)	1,2-dichloroethane (EDC)	0.005	<0.00100			<0.000372
(w)	1,1-dichloroethylene	0.007	<0.00100			<0.000635
(x)	Tetrachloroethylene (PCE)	0.005	<0.00100			<0.000655
(y)	Trichloroethylene (TCE)	0.005	<0.00500			<0.00150
(z)	Ethylbenzene	0.70	<0.00100			<0.000385
(aa)	Xylenes (Total)	0.62	<0.0100			<0.00124
(bb)	Methylene Chloride	0.005	<0.00500			<0.00173
(cc)	Chloroform	0.1	<0.00100			<0.000464
(dd)	1,1-Dichloroethane	0.025	<0.00100			< 0.000635
(ee)	Ethylene Dibromide (EDB)	0.00005	< 0.00500			
(ff)	1,1,1-trichloroethane	0.20	<0.00100			< 0.00175
(gg)	1,1,2-trichloroethane	0.005	<0.00100			<0.000411
(hh)	1,1,2,2-tetrachloroethane	0.01	<0.00100			< 0.000470
(ii)	vinyl chloride	0.002	<0.002			<0.000428
(jj)	PAHs: total naphthalene plus	0.03	<0.571			<0.00135
-	monomethylnapthalenes					
(kk)	benzo-a-pyrene	0.0002	<0.571			
(II)	cis-1,2-dichloroethene	0.07	<0.00100			<0.000457
(mm)	trans-1,2-dichloroethene	0.1	<0.00100			<0.000368
(nn)	1,2-dichloropropane (PDC)	0.005	<0.00500			<0.000556
(00)	Styrene	0.1	<0.00100			<0.000619
(pp)	1,2-dichlorobenzene	0.60	<0.00100			<0.000429
(pp)	1,4-dichlorobenzene	0.075	<0.00100			<0.000449
(rr)	1,2,4-trichlorobenzene	0.07	<0.00500			<0.00175
(ss)	pentachlorophenol	0.001	<1.14			
(tt)	atrazine	0.003	<0.500			
(11)	attazino	0.003	\0.300			

Table 3 - Summary of Human Health Standards Analytical Results EBDU 37



32.480758, -103.120642 Terracon Project No. KH247030



	20.6.2.3103 NN	IAC - Standards fo	r Domestic Water	- Supply		
В.	Parameter	Regulatory Limit		Sampl	e Date	
D.	Parameter	(mg/L)	4/3/2024	5/2/2024	10/28/2024	11/5/2024
(1)	Chloride	250.0	440		540	14,900
(2)	Copper	1.0	0.00509			<0.00100
(3)	Iron	1.0	<0.100			0.0418
(4)	Manganese	0.2	<0.00200			0.00473
(5)	Phenols	0.005	<0.0100			0.247
(6)	Sulfate	600.0	56.5			715
(7)	Total Dissolved Solids (TDS)	1,000.0	1,000		2,030	24,900
(8)	Zinc	10.0	0.00465			< 0.00274
(9)	рН	6 - 9	7.3			7
(10)	Methy tertiary-butyl ether (MTBE)	0.1	<0.00500			<0.00139
	20.6.2.310	3 NMAC - Standar	ds for Irrigation L	Jse		
C.	Parameter	Regulatory Limit		Sampl	e Date	
C.	rai attietei	(mg/L)	4/3/2024	5/2/2024	10/28/2024	11/5/2024
(1)	Aluminum	5.0	<0.0200			0.0813
(2)	Boron	0.75	0.154			1.84
(3)	Cobalt	0.05	<0.00200			<0.000355
(4)	Molybdenum	1.0	<0.00200			0.000686 J
(5)	Nickel	0.2	<0.00200			0.00114 J

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)

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

Bold and highlighted indicates analyte concentration exceeds both the SDL and the regulatory limit

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

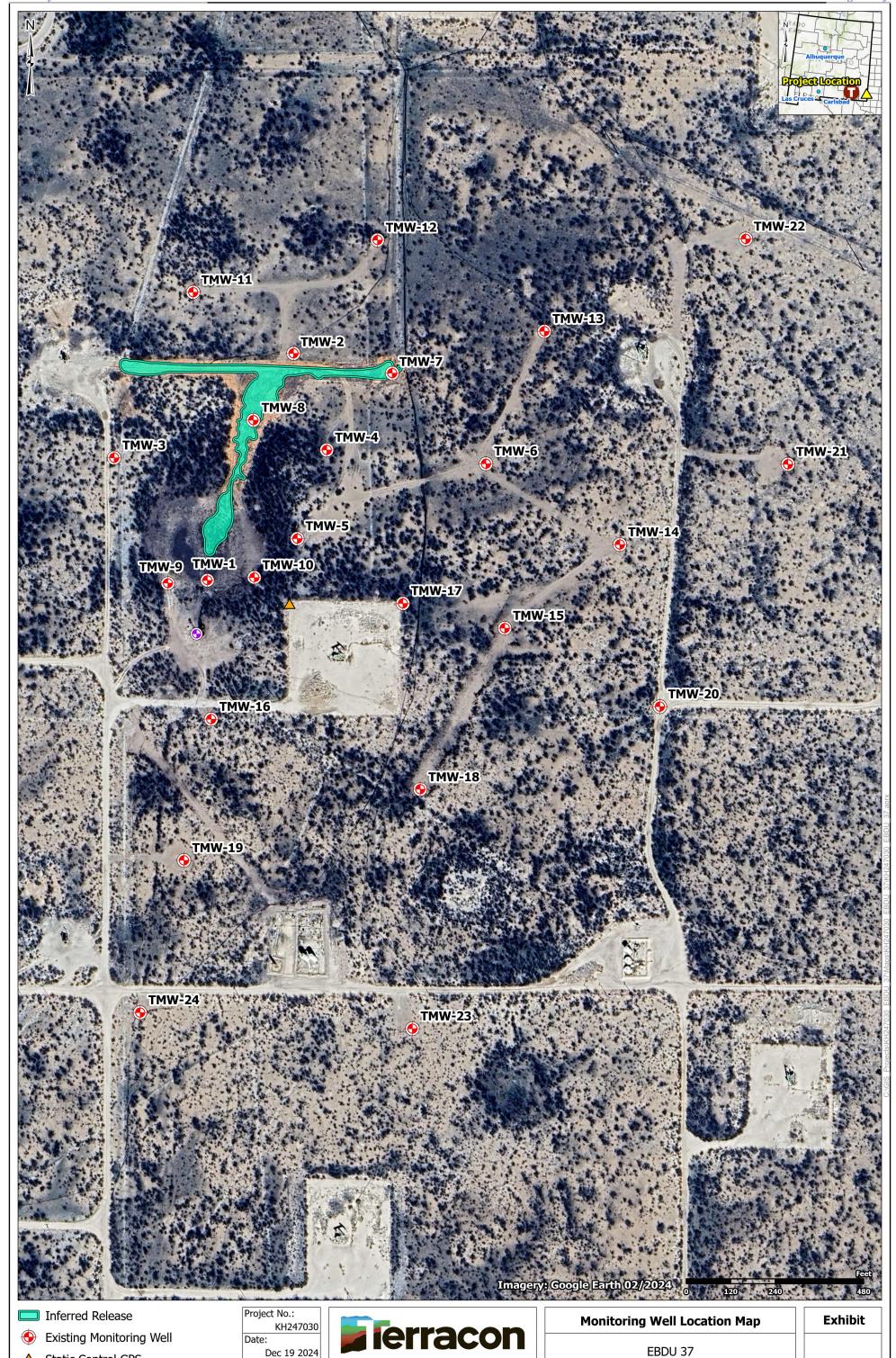
FIGURES

Figure 1.0 – Site Location Map
Figure 1.1 – Monitoring Well Location Map
Figure 2.1 – Groundwater Gradient Map October 2024
Figure 3.1 – Chloride Concentration Map October 2024
Figure 4.1 – TDS Concentration Map October 2024

PH. 806-300-0140

JRG

terracon.com



4526 W Pierce St Carlsbad, NM

terracon.com

PH. 806-300-0140

32.4807053, -103.123085 Apache Corporation

Eunice, Lea County, New Mexico

1.1

Drawn By:

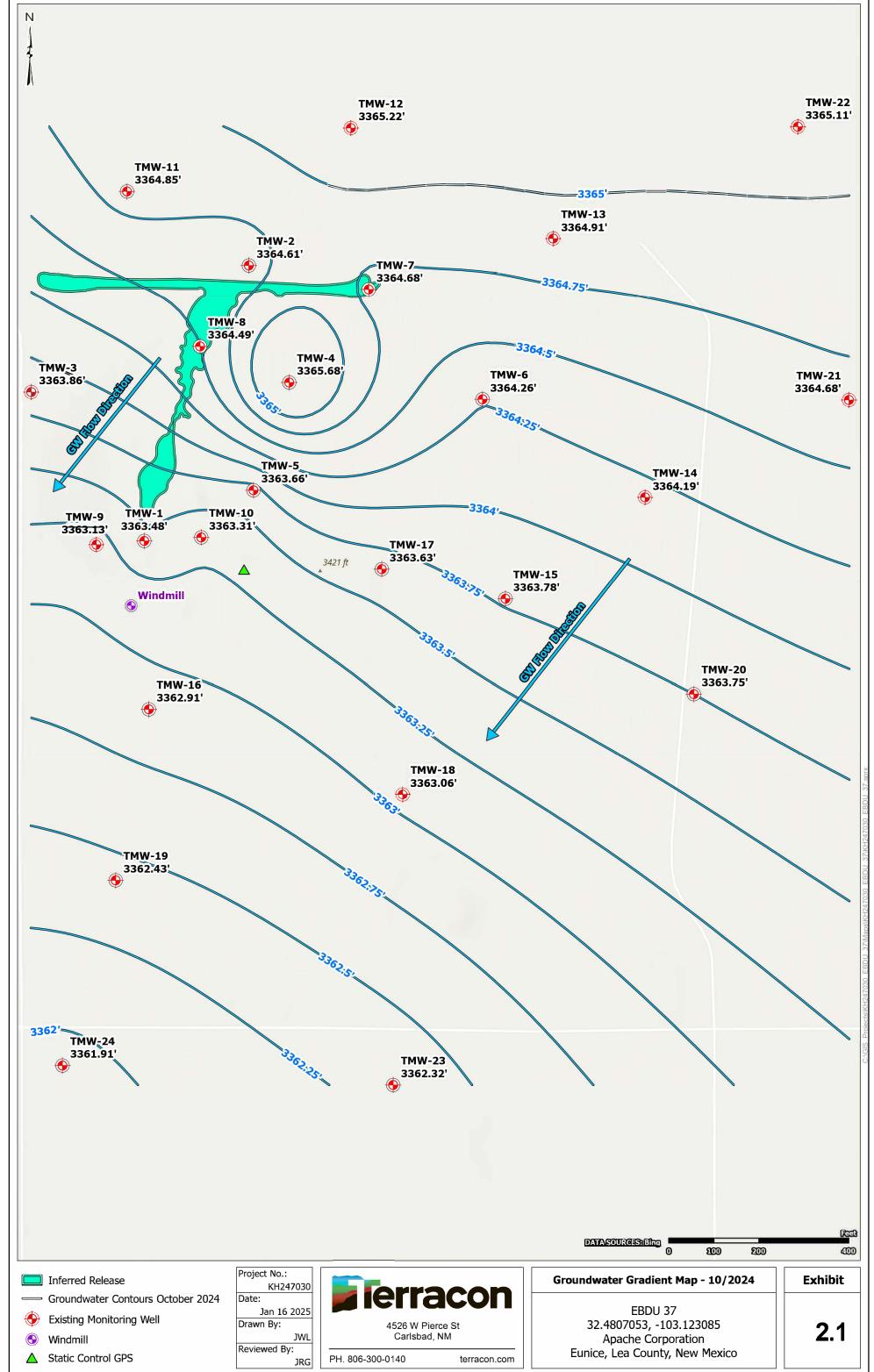
Reviewed By:

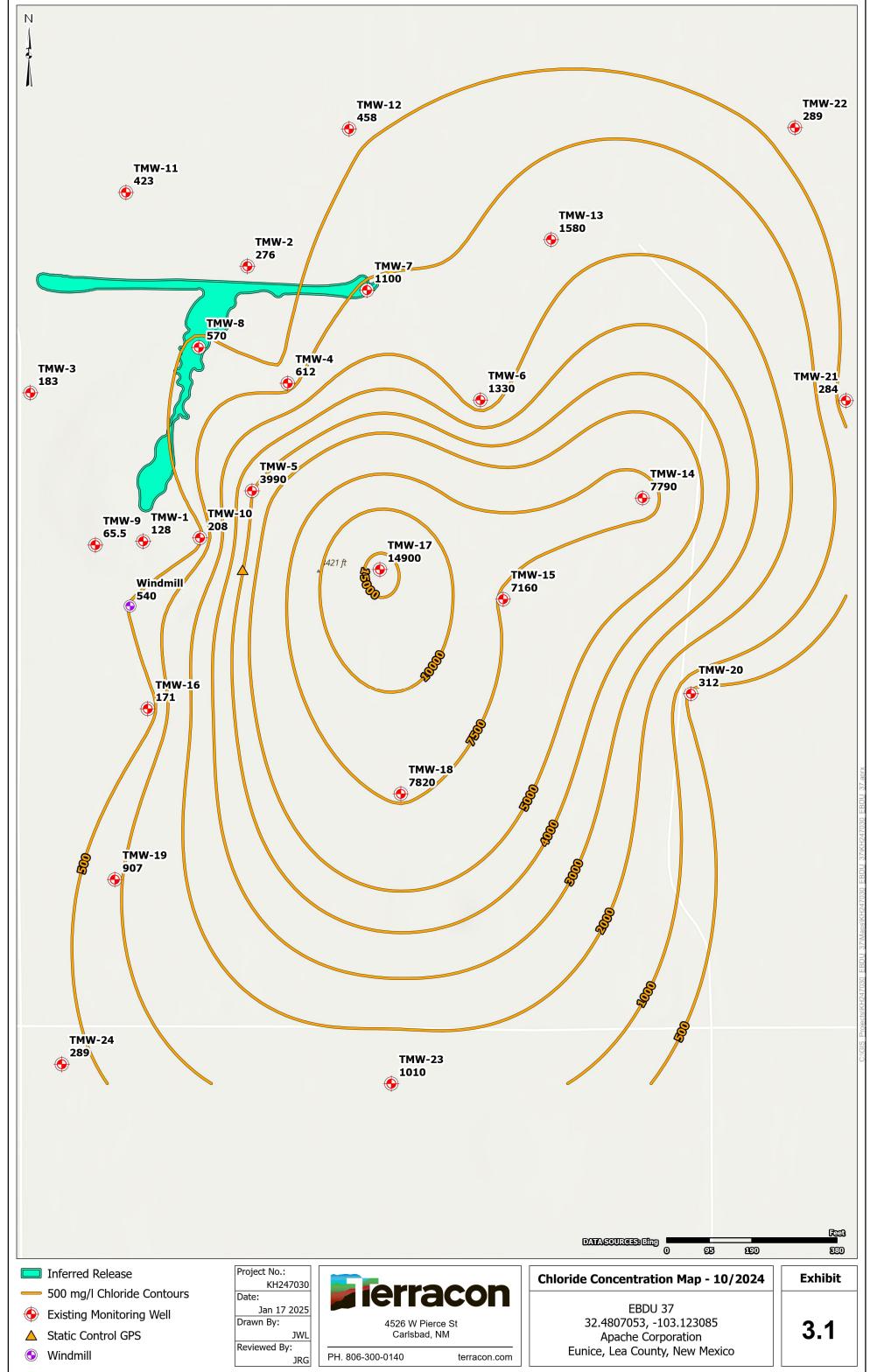
JWL

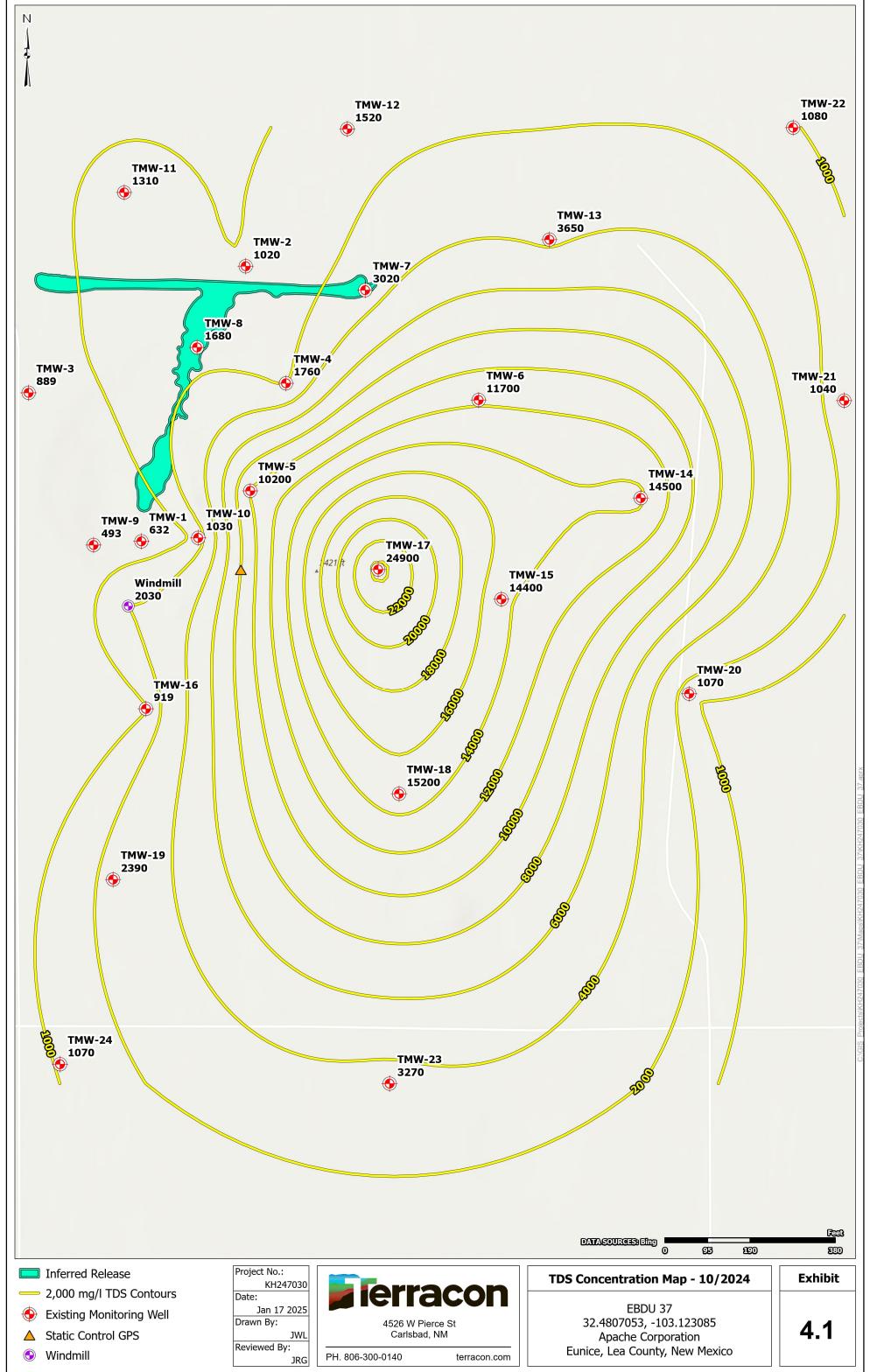
JRG

Static Control GPS

Windmill







APPENDIX A - LABORATORY DATA PACKAGES

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Jack Kirkpatrick Terracon Consulting Eng & Scientists 5847 50th St Lubbock, Texas 79424

Generated 10/30/2024 4:38:11 PM

JOB DESCRIPTION

Apache EBDU KH247030

JOB NUMBER

820-15913-1

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 10/30/2024 4:38:11 PM

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

1

Eurofins Lubbock is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

,

2

Λ

5

6

0

9

11

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).

MRAMER

Λ

6

9

10

12

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

Laboratory Job ID: 820-15913-1 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	
QC Association Summary	14
Lab Chronicle	16
Certification Summary	19
Method Summary	20
Sample Summary	21
Chain of Custody	22
Racaint Chacklists	24

3

6

8

40

11

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists Job ID: 820-15913-1 Project/Site: Apache EBDU

SDG: KH247030

Qualifiers

HPLC/IC

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.
11	Indicates the analyte was analyzed for but not detected

Indicates the analyte was analyzed for but not detected.

Glossary

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 MLMinimum 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)

Negative / Absent NEG 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

Eurofins Lubbock

Case Narrative

Client: Terracon Consulting Eng & Scientists

Project: Apache EBDU

Job ID: 820-15913-1

Job ID: 820-15913-1 Eurofins Lubbock

Job Narrative 820-15913-1

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 10/25/2024 12:30 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 -1.2°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

2

5

E

6

8

4 6

Project/Site: Apache EBDU

Client Sample ID: TMW-7 Date Collected: 10/24/24 10:27

Client: Terracon Consulting Eng & Scientists

SDG: KH247030

Lab Sample ID: 820-15913-1 Matrix: Water

Method: EPA 300.0 - Anions, Ion Ch	romatogran	hv							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	1100		2.50		mg/L			10/29/24 15:38	
- General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total Dissolved Solids (SM 2540C)	3020		40.0		mg/L			10/29/24 10:02	
Client Sample ID: TMW-4							Lab Sam	ple ID: 820-1	5913-2
Date Collected: 10/24/24 10:45								Matrix	x: Wate
Date Received: 10/25/24 12:30									
Method: EPA 300.0 - Anions, Ion Ch	romatograp	hy							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	612		2.50		mg/L			10/29/24 15:53	
General Chemistry									
Analyte		Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total Dissolved Solids (SM 2540C)	1760		20.0		mg/L			10/29/24 10:02	•
Client Sample ID: TMW-2							Lab Sam	ple ID: 820-1	5913-3
Date Collected: 10/24/24 10:57								Matrix	x: Wate
Date Received: 10/25/24 12:30									
Method: EPA 300.0 - Anions, Ion Ch	romatograp	hy							
Analyte	Result	Qualifier	RL	MDL		<u>D</u>	Prepared	Analyzed	Dil Fa
Chloride	276		2.50		mg/L			10/29/24 16:22	
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total Dissolved Solids (SM 2540C)	1020		10.0		mg/L			10/29/24 10:02	•
Client Sample ID: TMW-8							Lab Sam	ple ID: 820-1	5913-4
Date Collected: 10/24/24 11:07								Matrix	x: Wate
Date Received: 10/25/24 12:30									
Method: EPA 300.0 - Anions, Ion Ch	romatograp	hy							
Analyte		Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fa
Chloride 	570		2.50		mg/L			10/29/24 16:37	
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total Dissolved Solids (SM 2540C)	1680		20.0		mg/L			10/29/24 10:02	•
Client Sample ID: TMW-11							Lab Sam	ple ID: 820-1	5913-5
Date Collected: 10/24/24 11:17								Matrix	x: Wate
Date Received: 10/25/24 12:30									
Method: EPA 300.0 - Anions, Ion Ch	romatograp	hy							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	423		2.50		mg/L			10/29/24 16:52	
-									
General Chemistry									
General Chemistry Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fa

Eurofins Lubbock

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

Client Sample ID: TMW-12 Date Collected: 10/24/24 11:26 Date Received: 10/25/24 12:30

Lab Sample ID: 820-15913-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	458		2.50		mg/L			10/29/24 17:07	5
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1520		20.0		mg/L			10/29/24 10:02	1

Lab Sample ID: 820-15913-7 **Client Sample ID: TMW-13** Date Collected: 10/24/24 11:37 **Matrix: Water**

Method: EPA 300.0 - Anions, Ion Cl	nromatograp	hy							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	1580		2.50		mg/L			10/29/24 17:01	
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	3650		40.0		mg/L			10/29/24 10:02	1

Client Sample ID: TMW-6 Lab Sample ID: 820-15913-8 Date Collected: 10/24/24 11:46 **Matrix: Water**

Date Received: 10/25/24 12:30

Method: EPA 300.0 - Anions, Ion Cl	hromatograp	hy							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1330		2.50		mg/L			10/29/24 17:14	5
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	11700		100		mg/L			10/29/24 10:02	1

Client Sample ID: TMW-14 Lab Sample ID: 820-15913-9 Date Collected: 10/24/24 11:52 **Matrix: Water**

Date Received: 10/25/24 12:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7790		50.0		mg/L			10/29/24 17:33	100
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	14500		100		mg/L			10/29/24 10:02	1

Client Sample ID: TMW-15 Lab Sample ID: 820-15913-10 Date Collected: 10/24/24 11:59 **Matrix: Water**

Date Received: 10/25/24 12:30

Total Dissolved Solids (SM 2540C)

Method: EPA 300.0 - Anions, Ion Chromatography											
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac			
Chloride	7160	50.0		mg/L			10/29/24 20:11	100			
General Chemistry	Rosult Qualifier	RI	RI	Unit	D	Prenared	Analyzed	Dil Fac			

100

mg/L

Eurofins Lubbock

10/29/24 10:02

Job ID: 820-15913-1 SDG: KH247030

Client Sample ID: TMW-18

Date Collected: 10/24/24 12:08 Date Received: 10/25/24 12:30

Lab Sample ID: 820-15913-11

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7820		50.0		mg/L			10/29/24 20:27	100
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	15200		100		mg/L			10/29/24 10:02	1

Lab Sample ID: 820-15913-12 Client Sample ID: TMW-5 Date Collected: 10/24/24 12:16 **Matrix: Water**

Date Received: 10/25/24 12:30

Method: EPA 300.0 - Anions, Ion Chromatography Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac 5.00 10/29/24 20:33 10 Chloride 3990 mg/L

General Chemistry Analyte Result Qualifier RL RLUnit D Prepared Analyzed Dil Fac 100 10/29/24 10:02 Total Dissolved Solids (SM 2540C) 10200 mg/L

Client Sample ID: TMW-9 Lab Sample ID: 820-15913-13 Date Collected: 10/24/24 12:26 **Matrix: Water**

Date Received: 10/25/24 12:30

Method: EPA 300.0 - Anions, Ion Chromatography Analyte Result Qualifier MDL Dil Fac RL Unit D Analyzed Prepared Chloride 2.50 10/29/24 20:46 65.5 mg/L

General Chemistry Analyte Result Qualifier RL **RL** Unit D Prepared Analyzed Dil Fac Total Dissolved Solids (SM 2540C) 493 10.0 mg/L 10/29/24 10:02

Client Sample ID: TMW-10 Lab Sample ID: 820-15913-14 Date Collected: 10/24/24 12:35 **Matrix: Water**

Date Received: 10/25/24 12:30

Method: EPA 300.0 - Anions, Ion Chromatography Analyte Result Qualifier RLMDL Unit D Dil Fac Prepared Analyzed Chloride 208 2.50 mg/L 10/29/24 20:59 **General Chemistry**

Analyte Result Qualifier RL RL Unit D Dil Fac Prepared Analyzed Total Dissolved Solids (SM 2540C) 10.0 10/29/24 10:02 1030 mg/L

Client Sample ID: TMW-16 Lab Sample ID: 820-15913-15 Date Collected: 10/24/24 12:52 **Matrix: Water**

Date Received: 10/25/24 12:30

Method: EPA 300.0 - Anions, Ion Chromatography Analyte Result Qualifier MDL RL Unit D Prepared Analyzed Dil Fac Chloride 2.50 10/29/24 21:12 171 mg/L **General Chemistry**

Analyte Result Qualifier RL RL Unit D Prepared Analyzed Total Dissolved Solids (SM 2540C) 919 10.0 mg/L 10/29/24 10:02

Eurofins Lubbock

Dil Fac

Client Sample Results

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-15913-1 SDG: KH247030

Client Sample ID: TMW-23

Date Collected: 10/24/24 13:17 Date Received: 10/25/24 12:30

Lab Sample ID: 820-15913-17

Matrix: Water

Matrix: Water

Matrix: Water

10/29/24 10:02

Method: EPA 300.0 - Anions, Ion Cl	hromatograp	hy							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1010		2.50		mg/L			10/29/24 21:38	5
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	3270		40.0		mg/L			10/29/24 10:02	1

Lab Sample ID: 820-15913-18 **Client Sample ID: TMW-20**

Date Collected: 10/24/24 13:25

Date Received: 10/25/24 12:30

Method: EPA 300.0 - Anions, Ion Chrom	atograp	ohy							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	312		2.50		mg/L			10/29/24 21:50	5
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: TMW-22 Lab Sample ID: 820-15913-19

10.0

1070

mg/L

Date Collected: 10/24/24 13:33

Total Dissolved Solids (SM 2540C)

Date Received: 10/25/24 12:30

Method: EPA 300.0 - Anions, Ion C	hromatogran	ohv							
Analyte	• •	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	289		2.50		mg/L			10/29/24 22:03	5
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1080		10.0		mg/L			10/29/24 10:02	1

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-15913-1

SDG: KH247030

Prep Type: Total/NA

Client Sample ID: Method Blank

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-196460/3

Analysis Batch: 196460

	MB	МВ							
Analyte	Result	Qualifier	RL	MDL	Unit)	Prepared	Analyzed	Dil Fac
Chloride	<0.500	U	0.500		mg/L			10/29/24 10:03	1

Lab Sample ID: MB 860-196460/62 Client Sample ID: Method Blank Matrix: Water Prep Type: Total/NA

Matrix: Water

Analysis Batch: 196460

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.500	U	0.500	-	mg/L			10/29/24 17:39	1

Lab Sample ID: LCS 860-196460/4 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 196460

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	10.0	10.07		mg/L	_	101	90 - 110	

Lab Sample ID: LCS 860-196460/63 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 196460

	Бріке	LUS	LCS			%Rec	
Analyte	Added	Result	Qualifier Unit	D	%Rec	Limits	
Chloride	10.0	10.38	mg/L		104	90 - 110	

Lab Sample ID: LCSD 860-196460/5 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 196460

	Spike	LCSD	LCSD				%Rec		KPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	10.0	10.10		mg/L		101	90 - 110	0	20	

Lab Sample ID: LCSD 860-196460/64 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 196460

	Spike	LCSD	LCSD			%Rec		RPD
Analyte	Added	Result	Qualifier Unit	t D	%Rec	Limits	RPD	Limit
Chloride	10.0	10.33	mg/	L	103	90 - 110	0	20

Lab Sample ID: LLCS 860-196460/33 Client Sample ID: Lab Control Sample **Matrix: Water**

Analysis Batch: 196460

	Spike	LLCS	LLCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	0.500	0.4729	J	mg/L		95	50 - 150	

Lab Sample ID: MB 860-196466/3 Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Water

Analysis Batch: 196466

Released to Imaging: 2/14/2025 11:31:36 AM

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	< 0.500	U	0.500		ma/l			10/29/24 11:05	1

Eurofins Lubbock

Prep Type: Total/NA

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-15913-1

SDG: KH247030

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-196466/60

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 196466

MB MB

 Analyte
 Result
 Qualifier
 RL
 MDL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Chloride
 <0.500</td>
 U
 0.500
 mg/L
 10/29/24 17:52
 1

Lab Sample ID: LCS 860-196466/4

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

Matrix: Water

Analysis Batch: 196466

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 10.0 10.22 mg/L 102 90 - 110

Lab Sample ID: LCS 860-196466/61

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 196466

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Chloride 10.22 10.0 mg/L 102 90 - 110

Lab Sample ID: LCSD 860-196466/5

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 196466

LCSD LCSD Spike %Rec RPD Added RPD Limit Analyte Result Qualifier Unit D %Rec Limits Chloride 10.0 10.39 104 90 - 110 mg/L

Lab Sample ID: LCSD 860-196466/62

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 196466

	э ріке	LC2D	LCSD				%Rec		KPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	10.0	10.39		mg/L		104	90 - 110	2	20	

Lab Sample ID: LLCS 860-196466/7

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analysis Batch: 196466

Matrix: Water

Allalysis Balcii. 190400

Spike LLCS LLCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 0.500 0.5546 mg/L 111 50 - 150

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

Lab Sample ID: MB 860-196464/1

Client Sample ID: Method Blank

Matrix: Water

Analysis Batch: 196464

Prep Type: Total/NA

MB MB

 Analyte
 Result
 Qualifier
 RL
 RL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Total Dissolved Solids
 NC
 5.00
 mg/L
 10/29/24 10:00
 1

QC Sample Results

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-15913-1

SDG: KH247030

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

Lab Sample ID: LCS 860-196464/2 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Water Analysis Batch: 196464

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Total Dissolved Solids 1000 982.0 mg/L 98 80 - 120

Client Sample ID: TMW-7 Lab Sample ID: 820-15913-1 DU **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 196464

Sample Sample DU DU RPD Result Qualifier RPD Limit Analyte Result Qualifier Unit D **Total Dissolved Solids** 3020 2860 mg/L 6 10

Lab Sample ID: 820-15913-2 DU Client Sample ID: TMW-4 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 196464

DU DU RPD Sample Sample Result Qualifier Analyte Result Qualifier Unit Limit

Total Dissolved Solids 1760 1740 10 mg/L

QC Association Summary

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-15913-1 SDG: KH247030

HPLC/IC

Analysis Batch: 196460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-15913-1	TMW-7	Total/NA	Water	300.0	_
820-15913-2	TMW-4	Total/NA	Water	300.0	
820-15913-3	TMW-2	Total/NA	Water	300.0	
820-15913-4	TMW-8	Total/NA	Water	300.0	
820-15913-5	TMW-11	Total/NA	Water	300.0	
820-15913-6	TMW-12	Total/NA	Water	300.0	
820-15913-10	TMW-15	Total/NA	Water	300.0	
MB 860-196460/3	Method Blank	Total/NA	Water	300.0	
MB 860-196460/62	Method Blank	Total/NA	Water	300.0	
LCS 860-196460/4	Lab Control Sample	Total/NA	Water	300.0	
LCS 860-196460/63	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-196460/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LCSD 860-196460/64	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-196460/33	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 196466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-15913-7	TMW-13	Total/NA	Water	300.0	
820-15913-8	TMW-6	Total/NA	Water	300.0	
820-15913-9	TMW-14	Total/NA	Water	300.0	
820-15913-11	TMW-18	Total/NA	Water	300.0	
820-15913-12	TMW-5	Total/NA	Water	300.0	
820-15913-13	TMW-9	Total/NA	Water	300.0	
820-15913-14	TMW-10	Total/NA	Water	300.0	
820-15913-15	TMW-16	Total/NA	Water	300.0	
820-15913-17	TMW-23	Total/NA	Water	300.0	
820-15913-18	TMW-20	Total/NA	Water	300.0	
820-15913-19	TMW-22	Total/NA	Water	300.0	
MB 860-196466/3	Method Blank	Total/NA	Water	300.0	
MB 860-196466/60	Method Blank	Total/NA	Water	300.0	
LCS 860-196466/4	Lab Control Sample	Total/NA	Water	300.0	
LCS 860-196466/61	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-196466/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LCSD 860-196466/62	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-196466/7	Lab Control Sample	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 196464

Released to Imaging: 2/14/2025 11:31:36 AM

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
820-15913-1	TMW-7	Total/NA	Water	SM 2540C	
820-15913-2	TMW-4	Total/NA	Water	SM 2540C	
820-15913-3	TMW-2	Total/NA	Water	SM 2540C	
820-15913-4	TMW-8	Total/NA	Water	SM 2540C	
820-15913-5	TMW-11	Total/NA	Water	SM 2540C	
820-15913-6	TMW-12	Total/NA	Water	SM 2540C	
820-15913-7	TMW-13	Total/NA	Water	SM 2540C	
820-15913-8	TMW-6	Total/NA	Water	SM 2540C	
820-15913-9	TMW-14	Total/NA	Water	SM 2540C	
820-15913-10	TMW-15	Total/NA	Water	SM 2540C	
820-15913-11	TMW-18	Total/NA	Water	SM 2540C	

Eurofins Lubbock

Page 14 of 25

QC Association Summary

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-15913-1 SDG: KH247030

General Chemistry (Continued)

Analysis Batch: 196464 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-15913-12	TMW-5	Total/NA	Water	SM 2540C	_
820-15913-13	TMW-9	Total/NA	Water	SM 2540C	
820-15913-14	TMW-10	Total/NA	Water	SM 2540C	
820-15913-15	TMW-16	Total/NA	Water	SM 2540C	
820-15913-17	TMW-23	Total/NA	Water	SM 2540C	
820-15913-18	TMW-20	Total/NA	Water	SM 2540C	
820-15913-19	TMW-22	Total/NA	Water	SM 2540C	
MB 860-196464/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-196464/2	Lab Control Sample	Total/NA	Water	SM 2540C	
820-15913-1 DU	TMW-7	Total/NA	Water	SM 2540C	
820-15913-2 DU	TMW-4	Total/NA	Water	SM 2540C	

А

4

6

9

10

SDG: KH247030

Client Sample ID: TMW-7 Lab Sample ID: 820-15913-1 Date Collected: 10/24/24 10:27

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			196460	10/29/24 15:38	WP	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	196464	10/29/24 10:02	TR	EET HOU

Client Sample ID: TMW-4 Lab Sample ID: 820-15913-2

Date Collected: 10/24/24 10:45 **Matrix: Water**

Date Received: 10/25/24 12:30

Date Received: 10/25/24 12:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			196460	10/29/24 15:53	WP	EET HOU
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	196464	10/29/24 10:02	TR	EET HOU

Client Sample ID: TMW-2 Lab Sample ID: 820-15913-3

Date Collected: 10/24/24 10:57 **Matrix: Water**

Date Received: 10/25/24 12:30

Dil Final Batch Initial Batch Prepared Batch Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA 300.0 196460 10/29/24 16:22 WP Analysis 5 EET HOU Total/NA SM 2540C Analysis 1 100 mL 200 mL 196464 10/29/24 10:02 TR EET HOU

Client Sample ID: TMW-8 Lab Sample ID: 820-15913-4

Date Collected: 10/24/24 11:07 **Matrix: Water** Date Received: 10/25/24 12:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			196460	10/29/24 16:37	WP	EET HOU
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	196464	10/29/24 10:02	TR	EET HOU

Client Sample ID: TMW-11 Lab Sample ID: 820-15913-5

Date Collected: 10/24/24 11:17 **Matrix: Water** Date Received: 10/25/24 12:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			196460	10/29/24 16:52	WP	EET HOU
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	196464	10/29/24 10:02	TR	EET HOU

Lab Sample ID: 820-15913-6 **Client Sample ID: TMW-12**

Date Collected: 10/24/24 11:26 **Matrix: Water** Date Received: 10/25/24 12:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	300.0		5			196460	10/29/24 17:07	WP	EET HOU	
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	196464	10/29/24 10:02	TR	EET HOU	

Job ID: 820-15913-1 SDG: KH247030

Project/Site: Apache EBDU

Client Sample ID: TMW-13 Date Collected: 10/24/24 11:37 Date Received: 10/25/24 12:30

Lab Sample ID: 820-15913-7

Matrix: Water

Matrix: Water

Matrix: Water

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			196466	10/29/24 17:01	HN	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	196464	10/29/24 10:02	TR	EET HOU

Client Sample ID: TMW-6 Lab Sample ID: 820-15913-8

Date Collected: 10/24/24 11:46

Date Received: 10/25/24 12:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			196466	10/29/24 17:14	HN	EET HOU
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	196464	10/29/24 10:02	TR	EET HOU

Client Sample ID: TMW-14 Lab Sample ID: 820-15913-9

Date Collected: 10/24/24 11:52

Date Received: 10/25/24 12:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			196466	10/29/24 17:33	HN	EET HOU
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	196464	10/29/24 10:02	TR	EET HOU

Client Sample ID: TMW-15 Lab Sample ID: 820-15913-10 Date Collected: 10/24/24 11:59 **Matrix: Water**

Date Received: 10/25/24 12:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			196460	10/29/24 20:11	WP	EET HOU
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	196464	10/29/24 10:02	TR	EET HOU

Client Sample ID: TMW-18 Lab Sample ID: 820-15913-11

Date Collected: 10/24/24 12:08

Date Received: 10/25/24 12:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		100			196466	10/29/24 20:27	HN	EET HOU
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	196464	10/29/24 10:02	TR	EET HOU

Client Sample ID: TMW-5 Lab Sample ID: 820-15913-12

Date Collected: 10/24/24 12:16 Date Received: 10/25/24 12:30

Released to Imaging: 2/14/2025 11:31:36 AM

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Total/NA Analysis 300.0 10 196466 10/29/24 20:33 HN **EET HOU** Total/NA Analysis SM 2540C 10 mL 200 mL 196464 10/29/24 10:02 TR EET HOU

Eurofins Lubbock

Matrix: Water

Matrix: Water

Project/Site: Apache EBDU

Job ID: 820-15913-1 SDG: KH247030

Client Sample ID: TMW-9

Date Collected: 10/24/24 12:26 Date Received: 10/25/24 12:30

Lab Sample ID: 820-15913-13

Matrix: Water

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			196466	10/29/24 20:46	HN	EET HOU
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	196464	10/29/24 10:02	TR	EET HOU

Client Sample ID: TMW-10 Lab Sample ID: 820-15913-14

Date Collected: 10/24/24 12:35

Matrix: Water

Date Received: 10/25/24 12:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0	<u> </u>	5			196466	10/29/24 20:59	HN	EET HOU
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	196464	10/29/24 10:02	TR	EET HOU

Client Sample ID: TMW-16 Lab Sample ID: 820-15913-15

Date Collected: 10/24/24 12:52

Date Received: 10/25/24 12:30

	Batch	Batch	_	Dil	Initial	Final	Batch	Prepared		
Prep Type Total/NA	Type Analysis	Method 300.0	Run	Factor 5	Amount	Amount	Number 196466	or Analyzed 10/29/24 21:12	Analyst HN	EET HOU
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	196464	10/29/24 10:02	TR	EET HOU

Client Sample ID: TMW-23 Lab Sample ID: 820-15913-17

Date Collected: 10/24/24 13:17

Matrix: Water Date Received: 10/25/24 12:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			196466	10/29/24 21:38	HN	EET HOU
Total/NA	Analysis	SM 2540C		1	25 mL	200 mL	196464	10/29/24 10:02	TR	EET HOU

Client Sample ID: TMW-20 Lab Sample ID: 820-15913-18

Date Collected: 10/24/24 13:25

Date Received: 10/25/24 12:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			196466	10/29/24 21:50	HN	EET HOU
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	196464	10/29/24 10:02	TR	EET HOU

Client Sample ID: TMW-22 Lab Sample ID: 820-15913-19

Date Collected: 10/24/24 13:33

Date Received: 10/25/24 12:30

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			196466	10/29/24 22:03	HN	EET HOU
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	196464	10/29/24 10:02	TR	EET HOU

Laboratory References:

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

Eurofins Lubbock

Matrix: Water

Matrix: Water

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists

Job ID: 820-15913-1 Project/Site: Apache EBDU SDG: KH247030

Laboratory: Eurofins Houston

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215	06-30-25

Method Summary

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-15913-1

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: 820-15913-1 SDG: KH247030

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
820-15913-1	TMW-7	Water	10/24/24 10:27	10/25/24 12:30
820-15913-2	TMW-4	Water	10/24/24 10:45	10/25/24 12:30
820-15913-3	TMW-2	Water	10/24/24 10:57	10/25/24 12:30
820-15913-4	TMW-8	Water	10/24/24 11:07	10/25/24 12:30
820-15913-5	TMW-11	Water	10/24/24 11:17	10/25/24 12:30
820-15913-6	TMW-12	Water	10/24/24 11:26	10/25/24 12:30
820-15913-7	TMW-13	Water	10/24/24 11:37	10/25/24 12:30
820-15913-8	TMW-6	Water	10/24/24 11:46	10/25/24 12:30
820-15913-9	TMW-14	Water	10/24/24 11:52	10/25/24 12:30
820-15913-10	TMW-15	Water	10/24/24 11:59	10/25/24 12:30
820-15913-11	TMW-18	Water	10/24/24 12:08	10/25/24 12:30
820-15913-12	TMW-5	Water	10/24/24 12:16	10/25/24 12:30
820-15913-13	TMW-9	Water	10/24/24 12:26	10/25/24 12:30
820-15913-14	TMW-10	Water	10/24/24 12:35	10/25/24 12:30
820-15913-15	TMW-16	Water	10/24/24 12:52	10/25/24 12:30
820-15913-17	TMW-23	Water	10/24/24 13:17	10/25/24 12:30
820-15913-18	TMW-20	Water	10/24/24 13:25	10/25/24 12:30
820-15913-19	TMW-22	Water	10/24/24 13:33	10/25/24 12:30

3

4

5

7

8

9

Loc: 820 **15913**

							Laboratory:	Xenco)					82	0-159	13 Chain	of Cus	stody		14/10
					2001		Address:	6701	Abero	deen			- 1							- 1.4/-1.2 ER-1/+0.2
	-				CO			Lubbo	ock, T	exas 7	9424								TEMP OF C	OOLER
								6	۸.										WHEN REC	EIVED (°C)
Offic	ce Location	n <u>Lubb</u>	ock				Phone:	180	617	87	07	44	.							
							Contact:						.						Pag	ge <u>1</u> of <u>2</u>
	ect Manag													OS)	(00					
Sam	pler's Nan	ne Jack	Kirk	patrio	ck		Sampler's Sig	ature	1					s (T	ра					
<u></u>							Jun-1							Total Dissolved Solids (TDS)	Chloride (EPA Method 300)					
Proj	ect Numbe				Project Name	\mathcal{C}				No. T	ype of (Contain	ners	ed S	Δ					
L		KH247030	_			Apache EBD	U C			ļ				solv	(EP,					
Ě	Data	Time	Comp	Grab	Idontifiina	Morles of Care	la(a)	Septh	epth	∻	Ξ.			l Dis	ride					
Matrix	Date	l line	Ō	Gr	identifying	Marks of Samp	ne(s)	Start Depth (FT)	End Depth (FT)	1L Poly	250 ml Poly			ota	old.				1	Lab Sample ID
	40/24/2024	1027	1	Х		TMW-7		5												200 Sumple 15
GW	10/24/2024		+-	X		TMW-4		-		X	Х			X	Х		+	+		
GW	10/24/2024	1045	+	_					-	X	X			Х	Х		+	+		
GW	10/24/2024	1057	-	Х		TMW-2		-		×	X	-		х	х			+-		-
GW	10/24/2024	1107		Х		TMW-8		<u> </u>		х				х	x					
GW	10/24/2024	1117		Х		TMW-11				х	х			х	х					
GW	10/24/2024	1126		Х		TMW-12				×	х			x	х					
GW	10/24/2024	1137	1	Х		TMW-13				х	х			х	х					
GW	10/24/2024	1146		Х		TMW-6				x	×			х	х					
GW	10/24/2024			Х		TMW-14				x	x			х	х					
GW	10/24/2024			Х		TMW-15				×	x			×	×		+			
			+-	Х		TMW-18														
GW	10/24/2024 NAROUND TI				Normal 72-Hou		24-Hour Rush		TRRP	I abo	ratory	Review	y Chec	X klist	Х	↓ Yes		No No		
	ished by (Signaty				Date:	Time:	Received by (Signature)			Lubo	atory	Date:		Time:	1):10	Bill To:				
/	gran 7		_		10/25/24	1230	hornes	e fe	-			1012	5/24	JA.	30					
Reling	ished by Signatu	ire)			Date:	Time:	Received by (Signature)					Date:		Time:						
Dalina	ished by (Signatu	(ra)			Date:	Time:	Received by (Signature)					Date:		Time:						
Kelingi	iisneu by (signatu	ne,			Date.	Time:	Received by (Signature)					Date.		raile.		e-mail re			terracon.com	
Relinqu	ished by (Signatu	ire)			Date:	Time:	Received by (Signature)					Date:		Time:		-			terracon.com	
																			rracon.com	
Matrix		WW-Wastewater		W - Wat	er S - Soil	L - Liquid	A - Air Bag	C - Charco	al tube		SL - Sludge									
Contain	er	VOA - 40 ml vial		A/G - An	nber Glass 1L 250 ml = Glas	s wide mouth	P/O - Plastic or otherWip	e												
					Lubbock	Office = 58	47 50th Stree	t m L	.ubb	ock,	Texas	794	24 ≡	806	-300	-0140				
						, 0,	esponsive m	Reso	urco	ful -	Pal	iable								1
						: K	sahonaise #	1/690	uice	rai i	1761	idnic								







7
2
Se
48
.0
3
-
4
S

Received by OCD: 1/23/2025 1:35:15 PM

																		CHA	IN OI	CUST	TODY	RECC	ORD
						36	:01	n	Laboratory: Address:		. Aber					ANAL REQL	YSIS JESTE	D					LAB USE ONLY _1. 1/-1. 2 DUE DATE:
												exas 7		111									TEMP OF COOLER WHEN RECEIVED (°C)
	ce Locatio		Lubbo	ock					Phone: Contact:	(80	6)1	87	07	77									Page <u>2</u> of <u>2</u>
_	ect Mana		11 1	C. L.											_	DS)	8						
San	pler's Na	me 	Jack I	KIFKE					Sampler's Sig	pature	2	=				T) spilc	thod 3						
Pro	ect Numb	oer KH247030)			Project I	Name	Apache E	SDU /			No. T	ype of	Containe	ers	olved S	EPA Me						
Matrix	Date	Time	e	Comp	Grab		Identifying	Marks of San	nple(s)	Start Depth (FT)	End Depth (FT)	1L Poly	250 ml Polv			Total Dissolved Solids (TDS)	Chloride (EPA Method 300)						Lab Sample ID
GW	10/24/202	1216	;		Х			TMW-5				×	×			х	х						
GW	10/24/202	1226	;		Х			TMW-9				×	×			х	х						
GW	10/24/202	4 1235	5		Х			TMW-10				×	×			х	х						
GW	10/24/202	1252	2		Х			TMW-16				x	x			х	х						
GW	10/24/202	1300)		Х			TMW-19				х	×			х	х						
GW	10/24/202	4 1317	,		Х			TMW-23				x	x			х	х						
GW	10/24/202	1325	5		Х			TMW-20				х	×			х	х						
GW	10/24/202	1333	3		Х			TMW-22				х				х	х						
			_												1	/							
												A	FI										
																				1			
	IAROUND				Х	Normal	☐ 72-Hou	Rush	24-Hour Rush		TRRE	Labo	ratory	Review	Check	list		_	Yes		No		
	ished by (Signal	sp.					ate: 10/25/24 ate:	1230 Time:	Received by (Signature)		Pe	the		10/25 Date:	3/24	17	: 30	Bill T	o: Terr	acon			
	2	y e,				ľ	ate.	Time:	Refreived by (Signature	'				Date:	- 1"	me:							
Reling	ished by (Signa	ture)				G	ate:	Time:	Received by (Signature)					Date:	Ti	me:		e-ma	il resu		rick@t	terrac	on.com
Reling	ished by (Signa	ture)				C	ate:	Time:	Received by (Signature)					Date:	Tie	me:			josep	h.gues		terrac	con.com
Matrix Contain	ı,	WW-Wastewater			W - Wat	er nber Glass 1L	S - Soil 250 ml = Glas	L - Liquic s wide mouth	A - Air Bag P/O - Plastic or other <u>Wir</u>	C - Charco se	oal tube		SL - Sludge										
							Lubbock		5847 50th Stree						4 =	806	-300	-0140)				





0

||-

J

တ

4

24.7 C

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-15913-1 SDG Number: KH247030

List Source: Eurofins Lubbock

List Number: 1

Creator: Guillen, Kyrstin

Login Number: 15913

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	N/A	

4

8

10

13

<6mm (1/4").

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-15913-1 SDG Number: KH247030

List Source: Eurofins Houston

List Creation: 10/28/24 03:47 PM

Login Number: 15913 List Number: 2

Creator: Jimenez, Nicanor

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
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	True	

4

Eurofins Lubbock

<6mm (1/4").

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Austin Worley Terracon Consulting Eng & Scientists 5847 50th St Lubbock, Texas 79424

Generated 10/31/2024 4:06:39 PM

JOB DESCRIPTION

Apache EBDU KH247030

JOB NUMBER

820-15934-1

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 10/31/2024 4:06:39 PM

Authorized for release by Jessica Kramer, Project Manager <u>Jessica.Kramer@et.eurofinsus.com</u> (432)704-5440 Client: Terracon Consulting Eng & Scientists Project/Site: Apache EBDU

Laboratory Job ID: 820-15934-1 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
	14
Receipt Checklists	16
State Forms	18
TRRP Checklist	18

2

3

4

6

8

10

11

13

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-15934-1 SDG: KH247030

Qualifiers

HPLC/IC

Qualifier **Qualifier Description**

Analyte was not detected at or above the SDL.

General Chemistry

Qualifier **Qualifier Description**

Analyte was not detected at or above the SDL.

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

Percent Recovery %R 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)

Estimated Detection Limit (Dioxin) EDL LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

EPA recommended "Maximum Contaminant Level" MCL MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit MLMinimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

Not Detected at the reporting limit (or MDL or EDL if shown) ND

NEG Negative / Absent POS Positive / Present Practical Quantitation Limit POI

PRES Presumptive **Quality Control** QC

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

Toxicity Equivalent Factor (Dioxin) TEF **TEQ** Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Case Narrative

Client: Terracon Consulting Eng & Scientists

Project: Apache EBDU

Job ID: 820-15934-1

Job ID: 820-15934-1 Eurofins Lubbock

Job Narrative 820-15934-1

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 10/28/2024 4:10 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice.

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

2

5

5

8

11

13

Client Sample Results

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-15934-1

SDG: KH247030

Client Sample ID: Windmill

Lab Sample ID: 820-15934-1

Date Collected: 10/28/24 10:05 Date Received: 10/28/24 16:10

Matrix: Water

Method: EPA 300.0 - Anions, Ion Cl Analyte	• •	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	540		5.00	2.50	mg/L			10/30/24 23:22	10
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	2030		20.0	20.0	mg/L			10/30/24 10:08	

Lab Sample ID: 820-15934-3

Matrix: Water

Date Collected: 10/28/24 13:00 Date Received: 10/28/24 16:10

Client Sample ID: TMW-24

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac 0.500 Chloride 289 0.250 mg/L 10/30/24 23:28 **General Chemistry** Analyte Result Qualifier RL**RL** Unit Prepared Analyzed Dil Fac 1070 10.0 10.0 mg/L 10/30/24 10:08 Total Dissolved Solids (SM 2540C)

QC Sample Results

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-15934-1

SDG: KH247030

Prep Type: Total/NA

Client Sample ID: Method Blank

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample Dup

Client Sample ID: Lab Control Sample Dup

Client Sample ID: Lab Control Sample

Client Sample ID: Method Blank

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-196771/3

Analysis Batch: 196771

Matrix: Water

мв мв

Analyte Result Qualifier RLMDL Unit D Prepared Analyzed Dil Fac Chloride <0.250 U 0.500 0.250 mg/L 10/30/24 11:40

Lab Sample ID: MB 860-196771/60

Matrix: Water

Analysis Batch: 196771

MB MB

Dil Fac Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Chloride <0.250 U 0.500 0.250 mg/L 10/30/24 18:39

Lab Sample ID: LCS 860-196771/61 Client Sample ID: Lab Control Sample Prep Type: Total/NA

Matrix: Water

Analysis Batch: 196771

LCS LCS Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits Chloride 10.23 10.0 mg/L 102 90 - 110

Lab Sample ID: LCSD 860-196771/5

Matrix: Water

Analysis Batch: 196771

LCSD LCSD RPD Spike %Rec Added RPD Limit Analyte Result Qualifier Unit D %Rec Limits Chloride 10.0 10.22 102 90 - 110 20 mg/L

Lab Sample ID: LCSD 860-196771/62

Matrix: Water

Analysis Batch: 196771

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 10.0 10.19 mg/L 102 90 - 110

Lab Sample ID: LLCS 860-196771/7

Matrix: Water

Analysis Batch: 196771

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

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

Lab Sample ID: MB 860-196754/1

Released to Imaging: 2/14/2025 11:31:36 AM

Matrix: Water

Analysis Batch: 196754

MB MB

Analyte Result Qualifier RL RL Unit D Prepared Analyzed Dil Fac Total Dissolved Solids <5.00 U 5.00 5.00 mg/L 10/30/24 10:08

QC Sample Results

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-15934-1

SDG: KH247030

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

Lab Sample ID: LCS 860-196754/2 **Client Sample ID: Lab Control Sample Matrix: Water**

Prep Type: Total/NA

Analysis Batch: 196754

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Total Dissolved Solids 1000 976.0 mg/L 98 80 - 120

Client Sample ID: Lab Control Sample

Lab Sample ID: LLCS 860-196754/3 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 196754 Spike LLCS LLCS %Rec

Analyte Added Result Qualifier Unit D %Rec Limits **Total Dissolved Solids** 5.00 6.500 mg/L 130 50 - 150

QC Association Summary

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-15934-1 SDG: KH247030

HPLC/IC

Analysis Batch: 196771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-15934-1	Windmill	Total/NA	Water	300.0	
820-15934-3	TMW-24	Total/NA	Water	300.0	
MB 860-196771/3	Method Blank	Total/NA	Water	300.0	
MB 860-196771/60	Method Blank	Total/NA	Water	300.0	
LCS 860-196771/61	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-196771/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LCSD 860-196771/62	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-196771/7	Lab Control Sample	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 196754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-15934-1	Windmill	Total/NA	Water	SM 2540C	
820-15934-3	TMW-24	Total/NA	Water	SM 2540C	
MB 860-196754/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-196754/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LLCS 860-196754/3	Lab Control Sample	Total/NA	Water	SM 2540C	

Eurofins Lubbock

3

4

9

4.0

11

12

Lab Chronicle

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-15934-1

SDG: KH247030

Client Sample ID: Windmill

Date Collected: 10/28/24 10:05 Date Received: 10/28/24 16:10

Client Sample ID: TMW-24

Lab Sample ID: 820-15934-1

Matrix: Water

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			196771	10/30/24 23:22	WP	EET HOU
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	196754	10/30/24 10:08	TR	EET HOU

Lab Sample ID: 820-15934-3

Date Collected: 10/28/24 13:00

Date Received: 10/28/24 16:10

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA 300.0 196771 10/30/24 23:28 WP EET HOU Analysis Total/NA Analysis SM 2540C 100 mL 200 mL 196754 10/30/24 10:08 TR **EET HOU**

Laboratory References:

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

Accreditation/Certification Summary

Page 11 of 21

Client: Terracon Consulting Eng & Scientists

Job ID: 820-15934-1 Project/Site: Apache EBDU SDG: KH247030

Laboratory: Eurofins Houston

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215	06-30-25

Method Summary

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-15934-1

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

Job ID: 820-15934-1 SDG: KH247030

Project/Site: Apache EBDU

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
820-15934-1	Windmill	Water	10/28/24 10:05	10/28/24 16:10
820-15934-3	TMW-24	Water	10/28/24 13:00	10/28/24 16:10

Received by OCD: 1/23/2025 1:35:15 PM

Office Location Lubbock Phone:	
Office Location	PF COOLER PC 8.5 8.7
GW 10/28/2024 1005 X Windmill 1 1 1	
GW 10/28/2024 1005 X Windmill 1 1 1	Page 1 of 1
GW 10/28/2024 1005 X Windmill 1 1 1	
GW 10/28/2024 1005 X Windmill 1 1 1	
GW 10/28/2024 1005 X Windmill 1 1 1	
GW 10/28/2024 1005 X Windmill 1 1 1	Lab Sample ID
GW 10/28/2024 1130 X TMW-17 2 2 3 4 1 x x x GW 10/28/2024 1300 X TMW-24 1 1 1 x x x x	cao sample 15
GW 10/28/2024 1300 X TMW-24 1 1 1 x x	
NFE	
NFE	
NFE	
TURNAROUND TIME Normal 72-Hour Rush 24-Hour Rush 1 TRRP Laboratory Review Checklist 24-Hour Rush 10 TRRP Laboratory Review Checklist 25 No	
TURNAROUND TIME Date: Time: Received by (Signature) Date: Tim	
Relinquished by (Signature) Date: Time: Received by (Signature) Date: Time: e-mail results to:	
Reinquished by (Signature) Date: Time: Received by (Signature) Date: Time: Received by (Signature) Date: Time: joseph, guesnier@terracon.com	
austin.worley@terracon.com	
Lubbock Office = 5847 50th Street = Lubbock, Texas 79424 = 806-300-0140 Responsive = Resourceful = Reliable	

Eurofins Lubbock

Lubbock, TX 79424

Phone: 806-794-1296

6701 Aberdeen Ave. Suite 8

Client Information (Sub Contract Lab)

Sampler

N/A Phone:

Chain of Custody Record

Lab PM: Kramer Jessica

E-Mai



State of Origin:

💸 eurofins

COC No: 820-10046,1

Page:

Environment Testing

Shipping/Receiving	N/A			ca.Kramer@et.eurofinsus.com Texas											Page: Page 1 of 1						
ompany: Eurofins Environment Testing South Centr					Accreditations Required (See note):										Job #:						
ddress:	Due Date Request	Due Date Requested:							NELAP Texas										820-15934-1 Preservation (Codes:	
1145 Greenbriar Dr	11/1/2024	11/1/2024							Aı	naly	sis	Req	uest	ed					1100011011	oodes.	
city: Stafford	TAT Requested (d	ays): N/A			í] -	ate							ons	\top					
state, Zip:		, 407	•					Sulfate				[-	Aromatic Hydrocarbon		- {		[
X, 77477							ł	de,	1			}	- 1	- {	o.	1	- [
rhone: 181-240-4200(Tel)	PO#: N/A					۱.		300_ORGFM_28D/ (MOD) Chloride, Fluoride,	z						Ξ						
mail;	WO#:				or 100	į		, e	38	ا ا		2			mar		-				
I/A	N/A				2 2 -	Se	ł	por	풀	aku.		€	- 1	- }		1	-	£			
roject Name:	Project #:				Field Filtered Sample (Yes or Perform MSIMSD (Yes or No)	390_ORGFM_28D/ (MOD) Custom List		Ş	and Milrito as N	SM4500_H+/ pH and Temperature		6020B/3010A (MOD) Melais (19) + U	ğ		휘	(PAHs)	Ì	containers			
MAC HUman Health Standard te:	88002338 SSOW#:				割毫] ਊ		ē		퉏		¥et	Aerc	ا ي	olyc		- [out	Other		
ike. I/A	N/A				E S	l S	Ì	i i	‡	and	<u> </u>	8	8	∄ ;	P P P	}	- 1	ဦ	N/A		
				Matrix		2 [] _	3	300_ORGFMS/ Nitrate	표		\$	7470A/7470A Prep Mercury	8260D/5030C Full List	8270E QQQ/3511 Polycycli			Total Number of			
	ļ		Sample Type	(Wowster, Sesoild,	到是	GF	2540C_Cafed	SF.	F 5	ŧ	5.	99	470	8 3	- 6	ء أ		馬			
	Ì	Sample	(C=Comp.		힐투	ő,	님	ð	ő	\$20	Kelada_01	0B/3	8	g		里 :	4.024	N Te			
iample Identification - Client ID (Lab ID)	Sample Date	Time	G=grab)	A=Air)	Field Perfol	8	25	300	300	SR	Kol	209	747	826	827	<u>8</u>	7	Io	Special	Instructi	ons/Note:
			Preserv	ation Code:	$\!$.2	1					100			\mathbb{X}	Service de la comp	AND THE RESERVE AND ADDRESS OF THE PERSON NAMED IN COLUMN	
Vindmill (820-15934-1)	10/28/24	10:05 Central	G	Water		×	X	-	-] 7				1	\exists	T	T	3			
MW-17 (820-15934-2)	10/28/24	11:30	G	Water	+	+	X	×	x	×	×	x	\mathbf{x}	x :	x	x ;	x	10			
		Central 13:00	├ ──	 		┿—	+	 	<u> </u>	 ^ 		 ^ 	$\stackrel{\sim}{+}$	<u> </u>	-	`\	-	(1200)			
MW-24 (820-15934-3)	10/28/24	Central	G	Water	1	X	X	<u>L</u> _								L		2		_	
					T										Ţ	\top					
			 	 		+	┼	┼		\vdash	-		-+		├-			-			
					┸	<u> </u>		<u>L</u>		لـــــا								V. 4	<u> </u>		
	ļ	ļ]		J	1			")			Ī					1			
			 	} 	╁	┼	┼	┼		-					-	+					
			<u> </u>		-1-	<u> </u>	_	<u> </u>							_						
	ļ	ļ]]	J	1	J]				ļ				İ	1			
		 	 	 	+	\dagger	\dagger	1-	_	_		T†	十	\dashv	\dashv	+		- 000			
		<u> </u>			Щ.		<u> </u>	1								丄		<u> </u>			
ote: Since laboratory accreditations are subject to change, Eurofins Envocatory does not currently maintain accreditation in the State of Origin	listed above for analysis/tes	ts/matrix being	analyzed, the	a samples must be	shipp	ed bac	ck to t	the Eu	rofins	Enviro	onmer	nt Testi	na So	uth Cei	ntral.	LLC (a	borato	er or at	her instructions w	rill be provide	d. Any changes :
coreditation status should be brought to Eurofins Environment Testing S	South Central, LLC attention	immediately.	If all requeste	d accreditations a	re cum	ent to	date,	return	the si	igned (Chain	of Cus	tody a	ttestin	g to sa	aid co	mplian	ce to E	urofins Environme	ent Testing S	outh Central, LLC
ossible Hazard Identification																	are	retain	ed longer tha	n 1 mont	h)
Inconfirmed					Return To Client Disposal By Lab A Special Instructions/QC Requirements:										Arcı	hive For	M	onths			
eliverable Requested: I, II, IV Other (specify)	Primary Deliver	rable Rank.	2		Sp	ecial	Instr	ructio	ns/C	(C Re	equir	emen	ts:								
mpty Kit Relinquished by:		Date:			Time:								ľ	fethod	of Sh	ipmen	t:				
elinquished by: Hollestay On	Date/Time: 8/28/24	2 10	700	Company		Rece	eived t	by:			·····				D	ate/Tir	ne:			Compa	ny
elinquished by:	Date/Time:			Company		Rece	eived !	by							Ď	ate/Tir	ne:		 	Compa	ny
	Date/Time:			Company	-,	Rece	eived !	by.							Ē	ate/Tir	ne:	<u>.</u>		Compa	nv
Binquished by:		Date/Time: Company					Received by Date/Time:									אבווי	Lor.	1-5	•		
elinquisned by:				<u> </u>			_	5/											. (20	1	
elinquished by: Custody Seals Intact: Custody Seal No. Δ Yes Δ No				<u> </u>		Cool	ler Tor	npera	ture(s)	°C ar	nd Oth	er Ren	narks:	ın	الإا			.U ^c	. (20		

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job N

Job Number: 820-15934-1 SDG Number: KH247030

Login Number: 15934 List Source: Eurofins Lubbock

List Number: 1

Creator: Guillen, Kyrstin

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	

2

6

0

10

12

13

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-15934-1 SDG Number: KH247030

List Source: Eurofins Houston

List Creation: 10/29/24 11:53 AM

Login Number: 15934 List Number: 2

Creator: Baker, Jeremiah

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	True	

2

4

7

10

12

13

14

<6mm (1/4").

Appendix A

atory Data Package Cover Page - Page 1 of 4
a package is for Job No. 820-15934-1 and consists of:
nature page, the laboratory review checklist, and the following reportable data:
Field chain-of-custody documentation;
- Sample identification cross-reference;
- Test reports (analytical data sheets) for each environmental sample that includes: a. Items consistent with NELAC Chapter 5, b. dilution factors, c. preparation methods, d. cleanup methods, and e. if required for the project, tentatively identified coumpounds (TICs).
- Surrogate recovery data including: a. Calculated recovery (%R), and b. The laboratory's surrogate QC limits.
- Test reports/summary forms for blank samples;
- Test reports/summary forms for laboratory control samples (LCSs) including: a. LCS spiking amounts, b. Calculated %R for each analyte, and c. The laboratory's LCS QC limits.
- Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including: a. Samples associated with the MS/MSD clearly identified, b. MS/MSD spiking amounts, c. Concentration of each MS/MSD analyte measured in the parent and spiked samples, d. Calculated %Rs and relative percent differences (RPDs), and e. The laboratory's MS/MSD QC limits
- Laboratory analytical duplicate (if applicable) recovery and precision: a. The amount of analyte measured in the duplicate, b. The calculated RPD, and c. The laboratory's QC limits for analytical duplicates.
- List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and rix;
) - Other problems or anomalies.
eption Report for every "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program .
Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited a Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package is noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements without used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the matrix to the sy knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review and no information affecting the quality of the data has been knowingly withheld. Fapplicable: This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ on/ Any findings affecting the data in this laboratory data package are noted in the Exception Reports the official signing the cover page of the report in which these data are used is responsible for releasing this data and is by signature affirming the above release statement is true.

Name (Printed)	Signature	Official Title (Printed)	Date

Laboratory Data Package Cover Page - Page 2 of 4

	atory Na		LRC Date: 10/31/2					
	t Name:		Laboratory Job Nun	nber: 820-	15934-1			
Reviev	wer Nan	ne:						
# 1	A ²	Description		Yes	No	NA ³	NR⁴	ER#
R1	OI	Chain-of-custody (C-O-C)						
		Did samples meet the laboratory's standard conditions of sample a	cceptability upon	✓				
		receipt?						
		Were all departures from standard conditions described in an exce	ption report?	✓				
R2	OI	Sample and quality control (QC) identification						
		Are all field sample ID numbers cross-referenced to the laboratory		✓				
		Are all laboratory ID numbers cross-referenced to the correspondir	ng QC data?	✓				
R3	OI	Test reports						
		Were all samples prepared and analyzed within holding times?		✓				
		Other than those results < MQL, were all other raw values brackets	ed by calibration	~				
		standards?						
		Were calculations checked by a peer or supervisor?		✓				
		Were all analyte identifications checked by a peer or supervisor?	•	√				
		Were sample detection limits reported for all analytes not detected		✓		✓		
		Were all results for soil and sediment samples reported on a dry w				✓		-
		Were % moisture (or solids) reported for all soil and sediment sam				\ \ \ \ \		+
		Were bulk soils/solids samples for volatile analysis extracted with r			•			
		SW846 Method 5035? If required for the project, are TICs reported?				✓		+
R4	0					•		
N 4		Surrogate recovery data Were surrogates added prior to extraction?				✓		
		Were surrogate percent recoveries in all samples within the laborar			· ·	+	+	
R5	OI	Test reports/summary forms for blank samples						
KO_	Oi	Were appropriate type(s) of blanks analyzed?		-				
		Were blanks analyzed at the appropriate frequency?		· ·				
		Were method blanks taken through the entire analytical process, in	aduding proporation	· ·				
		and, if applicable, cleanup procedures?	icidulity preparation					
		Were blank concentrations < MQL?		✓				+
R6	OI	Laboratory control samples (LCS):						
	0.	Were all COCs included in the LCS?		✓				
		Was each LCS taken through the entire analytical procedure, inclu	ding prep and	✓				
		cleanup steps?	ang prop and					
		Were LCSs analyzed at the required frequency?		✓				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC	limits?	✓				
		Does the detectability check sample data document the laboratory		✓				
		detect the COCs at the MDL used to calculate the SDLs?						
		Was the LCSD RPD within QC limits?		✓				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD	data					
		Were the project/method specified analytes included in the MS and		✓				
		Were MS/MSD analyzed at the appropriate frequency?		✓				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC lin	nits?		✓			1
		Were MS/MSD RPDs within laboratory QC limits?		✓				
R8	OI	Analytical duplicate data						
	•	Were appropriate analytical duplicates analyzed for each matrix?		✓				
		Were analytical duplicates analyzed at the appropriate frequency?		✓				
	_	Were RPDs or relative standard deviations within the laboratory Q0	C limits?	✓				
R9	OI	Method quantitation limits (MQLs):						
	•	Are the MQLs for each method analyte included in the laboratory d	ata package?	✓				
		Do the MQLs correspond to the concentration of the lowest non-ze	ro calibration	✓				
		standard?						
		Are unadjusted MQLs and DCSs included in the laboratory data pa	ickage?	✓				
R10	OI	Other problems/anomalies						
		Are all known problems/anomalies/special conditions noted in this	LRC and ER?	✓				
		Was applicable and available technology used to lower the SDL to	minimize the matrix	✓				
		interference effects on the sample results?						
		Is the laboratory NELAC-accredited under the Texas Laboratory Ad	creditation Program	✓				
		for the analytes, matrices and methods associated with this laboral	ory data package?					

2

3

10

12

Laboratory Data Package Cover Page - Page 3 of 4

	atory Na		LRC Date: 10/31/2							
Project Name: Apache EBDU Laboratory Job Number:						r: 820-15934-1				
	ver Nan									
# 1	A ²	Description		Yes	No	NA ³	NR⁴	ER#		
S1	OI	Initial calibration (ICAL)								
		Were response factors and/or relative response factors for each and	alyte within QC	✓						
		limits? Were percent RSDs or correlation coefficient criteria met?		✓						
		Was the number of standards recommended in the method used for all analytes?		· ·				+		
		Were all points generated between the lowest and highest standard used to calculate		✓				-		
		the curve?								
		Are ICAL data available for all instruments used?		✓						
		Has the initial calibration curve been verified using an appropriate so	econd source	✓						
	01	standard?								
S2	OI	Initial and continuing calibration verification (ICCV	and CCV) and							
		continuing calibration blank (CCB):								
		Was the CCV analyzed at the method-required frequency? Were percent differences for each analyte within the method-require	d OC limited	✓						
		Was the ICAL curve verified for each analyte?	d QC IIIIIIS?			✓				
		Was the absolute value of the analyte concentration in the inorganic	CCB < MDI ?	✓		<u> </u>		+		
S3	0	Mass spectral tuning								
		Was the appropriate compound for the method used for tuning?				✓				
		Were ion abundance data within the method-required QC limits?				✓				
S4	0	Internal standards (IS)								
	1	Were IS area counts and retention times within the method-required QC limits?				✓				
S5	OI	Raw data (NELAC Section 5.5.10)								
		Were the raw data (for example, chromatograms, spectral data) revi	ewed by an	✓						
		analyst?								
		Were data associated with manual integrations flagged on the raw of	ata?	✓						
S6	0	Dual column confirmation								
		Did dual column confirmation results meet the method-required QC?				✓				
S 7	0	Tentatively identified compounds (TICs)								
		If TICs were requested, were the mass spectra and TIC data subject	t to appropriate			✓				
00	l i	checks?								
S8	ı	Interference Check Sample (ICS) results Were percent recoveries within method QC limits?				/				
80		·	of atandard			•				
S9	'	Serial dilutions, post digestion spikes, and method of standard								
		additions Were percent differences, recoveries, and the linearity within the QC	Limits specified			✓				
		in the method?	illilis specilied							
S10	OI	Method detection limit (MDL) studies								
	<u> </u>	Was a MDL study performed for each reported analyte?		✓						
		Is the MDL either adjusted or supported by the analysis of DCSs?		✓				1		
S11	OI	Proficiency test reports								
	•	Was the laboratory's performance acceptable on the applicable prof	iciency tests or	✓						
		evaluation studies?								
S12	OI	Standards documentation								
		Are all standards used in the analyses NIST-traceable or obtained fi	om other	✓						
		appropriate sources?								
S13	OI	Compound/analyte identification procedures								
044		Are the procedures for compound/analyte identification documented	?	✓						
S14	OI	Demonstration of analyst competency (DOC) Was DOC conducted consistent with NELAC Chapter 5?								
		Is documentation of the analyst's competency up-to-date and on file	?	✓ ✓						
S15	OI			•						
		Verification/validation documentation for methods (NELAC							
		Chapter 5) Are all the methods used to generate the data degumented, verified	and validated	✓						
		Are all the methods used to generate the data documented, verified where applicable?	and validated,	•						
S16	OI	· · ·								
310		Laboratory standard operating procedures (SOPs) Are laboratory SOPs current and on file for each method performed		✓						

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP -required report(s).
 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;

^{2.} O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

NA = Not applicable;

^{4.} NR = Not reviewed;

^{5.} ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Data Package Cover Page - Page 4 of 4

Laboratory Name: Eurofins Lubbock	LRC Date: 10/31/2024					
Project Name: Apache EBDU	Laboratory Job Number: 820-15934-1					
Reviewer Name:						
ER#¹ Description	Description					
1 Method 300.0: Due to the high concentration of Chloride, the matrix spike / m	Method 300.0: Due to the high concentration of Chloride, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 860-196771 could					
not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.						
1. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).						

2

2

3

4

0

9

11

14

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Joseph Guesnier Terracon Consulting Eng & Scientists 5847 50th St Lubbock, Texas 79424

Generated 12/5/2024 3:30:02 PM

JOB DESCRIPTION

Apache EBDU KH247030

JOB NUMBER

820-16056-1

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 12/5/2024 3:30:02 PM

Authorized for release by Jessica Kramer, Project Manager <u>Jessica.Kramer@et.eurofinsus.com</u> (432)704-5440 Client: Terracon Consulting Eng & Scientists Project/Site: Apache EBDU

Laboratory Job ID: 820-16056-1 SDG: KH247030

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	6
Client Sample Results	8
Surrogate Summary	12
Tracer Carrier Summary	13
QC Sample Results	14
QC Association Summary	32
Lab Chronicle	36
Certification Summary	37
Method Summary	39
Sample Summary	40
Chain of Custody	41
Receipt Checklists	45
State Forms	48
DCS Report	48
TRRP Checklist	52

_1

2

3

4

6

8

10

12

13

15

116

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1

SDG: KH247030

Qualifiers

GC/MS VOA

Qualifier **Qualifier Description**

Analyte was not detected at or above the SDL.

GC/MS Semi VOA

Qualifier **Qualifier Description**

Analyte was not detected at or above the SDL.

GC Semi VOA

Qualifier **Qualifier Description**

U Analyte was not detected at or above the SDL.

HPLC/IC

Qualifier **Qualifier Description**

Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

Analyte was not detected at or above the SDL.

Metals

Qualifier **Qualifier Description**

Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

U Analyte was not detected at or above the SDL.

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.

Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.

N1 MS, MSD: Spike recovery exceeds upper or lower control limits.

U Analyte was not detected at or above the SDL.

Rad

Qualifier **Qualifier Description**

Result is less than the sample detection limit. U

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

DFR 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) 100 Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" Minimum Detectable Activity (Radiochemistry) MDA

Minimum Detectable Concentration (Radiochemistry) MDC MDL Method Detection Limit

Minimum Level (Dioxin) ML MPN Most Probable Number MQL Method Quantitation Limit

Not Calculated NC

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent

Released to Imaging: 2/14/2025 11:31:36 AM

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists Job ID: 820-16056-1 Project/Site: Apache EBDU SDG: KH247030

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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

Job ID: 820-16056-1

Case Narrative

Client: Terracon Consulting Eng & Scientists

Project: Apache EBDU

Job ID: 820-16056-1 Eurofins Lubbock

Job Narrative 820-16056-1

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 11/5/2024 3:52 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 3.1° C.

GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 860-198893 recovered outside acceptance criteria, low biased, for Dichloro difluoromethane (-23.4%). A low level standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260D: The continuing calibration verification (CCV) associated with batch 860-198893 recovered above the upper control limit for Trichlorofluoromethane (20.3%). 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 860-198893/2).

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

GC/MS Semi VOA

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

PCBs

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 (820-16056-1). Elevated reporting limits (RLs) are provided.

Method 300_ORGFM_28D: The following sample was diluted to bring the concentration of target analytes within the calibration range: TMW-19 (820-16056-2). 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 6020B: The following sample was diluted due to the nature of the sample matrix: TMW-17 (820-16056-1). 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 being a briny sample and cannot be run at a lower dilution: TMW-17 (820-16056-1). Elevated reporting limits (RL) are provided.

Method Kelada_01: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-201327 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method Kelada 01: Reporting Limit - Estimated; Outside Calibration Range: Due to the sample interference and nature of the

Eurofins Lubbock

2

1

5

9

11

13

15

16

Case Narrative

Client: Terracon Consulting Eng & Scientists

Project: Apache EBDU

Job ID: 820-16056-1 (Continued)

Job ID: 820-16056-1

Eurofins Lubbock

sample, the concentration of Cyanide was above the instrument calibration range. The data have been reported and qualified. TMW-17 (820-16056-1). Note: Sample has white substance in the sample that mixes when stirred but precipitates when settled. Due to the nature of the sample we are getting inconsistent result and dilution result is not confirming with the 1X ran. Possible sample is not homogenous.

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

Gas Flow Proportional Counter

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

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1 SDG: KH247030

Lab Sample ID: 820-16056-1

Matrix: Water

Client Sample ID: TMW-17 Date Collected: 11/05/24 08:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000460	U	0.00100	0.000460	mg/L			11/11/24 08:22	1
Bromobenzene	<0.000486	U	0.00100	0.000486	mg/L			11/11/24 08:22	1
Bromochloromethane	<0.000577	U	0.00100	0.000577	mg/L			11/11/24 08:22	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552	mg/L			11/11/24 08:22	1
Bromoform	< 0.000633	U	0.00500	0.000633				11/11/24 08:22	1
Bromomethane	<0.00142		0.00500	0.00142	•			11/11/24 08:22	1
2-Butanone	<0.00828		0.0500	0.00828				11/11/24 08:22	1
Carbon tetrachloride	<0.000896		0.00500	0.000896				11/11/24 08:22	
Chlorobenzene	<0.000455		0.00100	0.000455	•			11/11/24 08:22	1
Chloroethane	<0.00198		0.0100	0.00198				11/11/24 08:22	1
Chloroform	<0.000464		0.00100	0.000464				11/11/24 08:22	1
Chloromethane	<0.00204		0.0100	0.00204	•			11/11/24 08:22	1
4-Chlorotoluene	<0.000386		0.00100	0.000386				11/11/24 08:22	
cis-1,2-Dichloroethene	< 0.000457		0.00100	0.000457	•			11/11/24 08:22	1
cis-1,3-Dichloropropene	<0.00107		0.00500	0.00107				11/11/24 08:22	1
Dibromochloromethane	<0.000547		0.00500	0.000547				11/11/24 08:22	
1,2-Dibromo-3-Chloropropane	<0.000671		0.00500	0.000671	mg/L			11/11/24 08:22	1
1,2-Dibromoethane	<0.000999		0.00500	0.000071	-			11/11/24 08:22	,
1,2-Dichlorobenzene	<0.000939		0.00100	0.000333				11/11/24 08:22	,
1.3-Dichlorobenzene	<0.000429		0.00100	0.000429				11/11/24 08:22	1
<i>Y</i> -					Ü				
1,4-Dichlorobenzene	<0.000449		0.00100	0.000449				11/11/24 08:22	
Dichlorodifluoromethane	<0.000785		0.00100	0.000785	•			11/11/24 08:22	1
1,1-Dichloroethane	<0.000635		0.00100	0.000635	•			11/11/24 08:22	1
1,2-Dichloroethane	<0.000372		0.00100	0.000372	.			11/11/24 08:22	1
1,1-Dichloroethene	<0.000738		0.00100	0.000738				11/11/24 08:22	1
1,2-Dichloropropane	<0.000556		0.00500	0.000556	•			11/11/24 08:22	1
1,3-Dichloropropane	<0.000514		0.00500	0.000514				11/11/24 08:22	1
2,2-Dichloropropane	<0.000679		0.00500	0.000679				11/11/24 08:22	1
1,1-Dichloropropene	<0.000624		0.00500	0.000624				11/11/24 08:22	1
Ethylbenzene	<0.000385		0.00100	0.000385				11/11/24 08:22	1
Hexachlorobutadiene	<0.000627		0.00500	0.000627				11/11/24 08:22	1
Isopropylbenzene	<0.000592		0.00100	0.000592	_			11/11/24 08:22	1
Methylene Chloride	<0.00173		0.00500	0.00173				11/11/24 08:22	
m,p-Xylenes	<0.00124		0.0100	0.00124	•			11/11/24 08:22	1
MTBE	<0.00139		0.00500	0.00139	•			11/11/24 08:22	1
Naphthalene	<0.00135		0.0100	0.00135				11/11/24 08:22	
n-Butylbenzene	<0.000510		0.00100	0.000510	_			11/11/24 08:22	1
N-Propylbenzene	<0.000429		0.00100	0.000429	•			11/11/24 08:22	1
o-Xylene	<0.000502		0.00100	0.000502				11/11/24 08:22	1
p-Cymene (p-Isopropyltoluene)	<0.000676		0.00100	0.000676				11/11/24 08:22	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468				11/11/24 08:22	•
Styrene	<0.000619		0.00100	0.000619				11/11/24 08:22	
tert-Butylbenzene	<0.000442		0.00100	0.000442				11/11/24 08:22	,
1,1,1,2-Tetrachloroethane	<0.000644		0.00100	0.000644				11/11/24 08:22	,
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470	mg/L			11/11/24 08:22	
Tetrachloroethene	<0.000655		0.00100	0.000655	-			11/11/24 08:22	1
Toluene	<0.000475	U	0.00100	0.000475				11/11/24 08:22	1
trans-1,2-Dichloroethene	<0.000368	U	0.00100	0.000368	mg/L			11/11/24 08:22	1

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

SDG: KH247030

Job ID: 820-16056-1

Client Sample ID: TMW-17

Date Received: 11/05/24 15:52

Lab Sample ID: 820-16056-1 Date Collected: 11/05/24 08:40

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.00177	U	0.00500	0.00177	mg/L			11/11/24 08:22	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175	mg/L			11/11/24 08:22	1
1,1,1-Trichloroethane	<0.000585	U	0.00500	0.000585	mg/L			11/11/24 08:22	1
1,1,2-Trichloroethane	< 0.000411	U	0.00100	0.000411	mg/L			11/11/24 08:22	1
Trichloroethene	<0.00150	U	0.00500	0.00150	mg/L			11/11/24 08:22	1
Trichlorofluoromethane	<0.000560	U	0.00100	0.000560	mg/L			11/11/24 08:22	1
1,2,3-Trichloropropane	< 0.000470	U	0.00100	0.000470	mg/L			11/11/24 08:22	1
1,2,4-Trimethylbenzene	<0.000417	U	0.00100	0.000417	mg/L			11/11/24 08:22	1
1,3,5-Trimethylbenzene	<0.000411	U	0.00100	0.000411	mg/L			11/11/24 08:22	1
Vinyl chloride	<0.000428	U	0.00200	0.000428	mg/L			11/11/24 08:22	1
Xylenes, Total	<0.00124	U	0.0100	0.00124	mg/L			11/11/24 08:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		74 - 124			-		11/11/24 08:22	1
Dibromofluoromethane (Surr)	110		75 - 131					11/11/24 08:22	1
1,2-Dichloroethane-d4 (Surr)	109		63 - 144					11/11/24 08:22	1
Toluene-d8 (Surr)	101		80 - 120					11/11/24 08:22	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.0000622	U	0.000568	0.0000622	mg/L		11/07/24 06:10	11/10/24 21:10	1
2-Methylnaphthalene	<0.0000599	U	0.000568	0.0000599	mg/L		11/07/24 06:10	11/10/24 21:10	1
Acenaphthene	<0.000107	U	0.000568	0.000107	mg/L		11/07/24 06:10	11/10/24 21:10	1
Acenaphthylene	<0.0000991	U	0.000568	0.0000991	mg/L		11/07/24 06:10	11/10/24 21:10	1
Anthracene	<0.0000933	U	0.000568	0.0000933	mg/L		11/07/24 06:10	11/10/24 21:10	1
Benzo[a]anthracene	<0.0000284	U	0.0000284	0.0000284	mg/L		11/07/24 06:10	11/10/24 21:10	1
Benzo[a]pyrene	<0.0000298	U	0.0000568	0.0000298	mg/L		11/07/24 06:10	11/10/24 21:10	1
Benzo[b]fluoranthene	<0.0000660	U	0.000568	0.0000660	mg/L		11/07/24 06:10	11/10/24 21:10	1
Benzo[g,h,i]perylene	< 0.0000343	U	0.000568	0.0000343	mg/L		11/07/24 06:10	11/10/24 21:10	1
Benzo[k]fluoranthene	<0.000470	U	0.000568	0.0000470	mg/L		11/07/24 06:10	11/10/24 21:10	1
Chrysene	<0.0000811	U	0.000568	0.0000811	mg/L		11/07/24 06:10	11/10/24 21:10	1
Dibenz(a,h)anthracene	<0.0000506	U	0.000114	0.0000506	mg/L		11/07/24 06:10	11/10/24 21:10	1
Fluoranthene	<0.0000878	U	0.000568	0.0000878	mg/L		11/07/24 06:10	11/10/24 21:10	1
Fluorene	< 0.0000943	U	0.000568	0.0000943	mg/L		11/07/24 06:10	11/10/24 21:10	1
Indeno[1,2,3-cd]pyrene	<0.0000994	U	0.000568	0.0000994	mg/L		11/07/24 06:10	11/10/24 21:10	1
Naphthalene	<0.0000939	U	0.000568	0.0000939	mg/L		11/07/24 06:10	11/10/24 21:10	1
Phenanthrene	< 0.000133	U	0.000568	0.000133	mg/L		11/07/24 06:10	11/10/24 21:10	1
Pyrene	<0.0000844	U	0.000568	0.0000844	mg/L		11/07/24 06:10	11/10/24 21:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	81		43 - 130				11/07/24 06:10	11/10/24 21:10	1
Nitrobenzene-d5 (Surr)	114		37 - 133				11/07/24 06:10	11/10/24 21:10	1
p-Terphenyl-d14 (Surr)	70		47 - 130				11/07/24 06:10	11/10/24 21:10	1

ı	Method: SW846 8082A - Polychlorin	ated Biphe	nyls (PCBs) by	y Gas Chro	matograpl	าง				
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	PCB-1016	<0.0000469	U	0.000255	0.0000469	mg/L		11/07/24 08:43	11/07/24 15:24	1
	PCB-1221	<0.0000469	U	0.000510	0.0000469	mg/L		11/07/24 08:43	11/07/24 15:24	1
	PCB-1232	<0.0000469	U	0.000510	0.0000469	mg/L		11/07/24 08:43	11/07/24 15:24	1
	PCB-1242	<0.0000469	U	0.000255	0.0000469	mg/L		11/07/24 08:43	11/07/24 15:24	1

Client: Terracon Consulting Eng & Scientists

SDG: KH247030

Project/Site: Apache EBDU

Lab Sample ID: 820-16056-1

Matrix: Water

Job ID: 820-16056-1

Client Sample ID: TMW-17 Date Collected: 11/05/24 08:40

Date Received: 11/05/24 15:52

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Method. 3W040 0002A - Polychlon	nated Diplie	ilyis (FCDS) t	Jy Gas Cilic	ınıatuyrapı	iy (Coiii	iiiueuj			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1248	<0.000469	U	0.000510	0.0000469	mg/L		11/07/24 08:43	11/07/24 15:24	1
PCB-1254	<0.0000617	U	0.000510	0.0000617	mg/L		11/07/24 08:43	11/07/24 15:24	1
PCB-1260	<0.0000617	U	0.000255	0.0000617	mg/L		11/07/24 08:43	11/07/24 15:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76	52 - 134	11/07/24 08:43	11/07/24 15:24	1
DCB Decachlorobiphenyl (Surr)	46	28 - 94	11/07/24 08:43	11/07/24 15:24	1

Method: EPA 300.0 - Anior	s, Ion Chromatograp	hy							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	8.21		1.00	0.391	mg/L			11/06/24 17:15	10
Fluoride	<1.00	U	5.00	1.00	mg/L			11/06/24 17:15	10
Nitrite as N	< 0.699	U	1.00	0.699	mg/L			11/06/24 17:15	10
Sulfate	715		5.00	2.00	mg/L			11/06/24 17:15	10

Method: EPA 300.0 - Anions, Ion (Method: EPA 300.0 - Anions, Ion Chromatography - DL									
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac			
Chloride	14900	50.0	25.0 mg/L			11/06/24 17:21	100			

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.0813		0.0200	0.00549	mg/L		11/11/24 03:42	11/11/24 15:10	1
Antimony	<0.000750	U	0.00200	0.000750	mg/L		11/11/24 03:42	11/11/24 15:10	1
Arsenic	0.00212	J	0.00400	0.000690	mg/L		11/11/24 03:42	11/11/24 15:10	1
Barium	0.204		0.00400	0.00134	mg/L		11/11/24 03:42	11/11/24 15:10	1
Beryllium	<0.000271	U	0.00200	0.000271	mg/L		11/11/24 03:42	11/11/24 15:10	1
Boron	1.84		0.100	0.0401	mg/L		11/11/24 03:42	11/11/24 15:27	10
Cadmium	<0.000240	U	0.00200	0.000240	mg/L		11/11/24 03:42	11/11/24 15:10	1
Chromium	0.00122	J	0.00400	0.000560	mg/L		11/11/24 03:42	11/11/24 15:10	1
Cobalt	< 0.000355	U	0.00200	0.000355	mg/L		11/11/24 03:42	11/11/24 15:10	1
Copper	<0.00100	U	0.00400	0.00100	mg/L		11/11/24 03:42	11/11/24 15:10	1
Iron	0.0418		0.0200	0.00445	mg/L		11/11/24 03:42	11/11/24 15:10	1
Lead	< 0.00367	U	0.0200	0.00367	mg/L		11/11/24 03:42	11/11/24 15:27	10
Manganese	0.00473		0.00200	0.000759	mg/L		11/11/24 03:42	11/11/24 15:10	1
Molybdenum	0.000686	J	0.00200	0.000255	mg/L		11/11/24 03:42	11/11/24 15:10	1
Nickel	0.00114	J	0.00200	0.000528	mg/L		11/11/24 03:42	11/11/24 15:10	1
Selenium	0.0227		0.00200	0.000590	mg/L		11/11/24 03:42	11/11/24 15:10	1
Silver	<0.000390	U	0.00200	0.000390	mg/L		11/11/24 03:42	11/11/24 15:10	1
Thallium	<0.00185	U	0.0200	0.00185	mg/L		11/11/24 03:42	11/11/24 15:27	10
Uranium	0.0131		0.0100	0.00211	mg/L		11/11/24 03:42	11/11/24 15:27	10
Zinc	<0.00274	U	0.00400	0.00274	mg/L		11/11/24 03:42	11/11/24 15:10	1

Method: SW846 7470A - Mercury (C	VAA)								
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000361	-	0.000200	0.0000706	mg/L		11/13/24 07:34	11/13/24 19:48	1

General Chemistry									
Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
pH (SM 4500 H+ B)	7.0	HF			SU			12/05/24 14:15	1
Temperature (SM 4500 H+ B)	18.6	HF			Degrees C			12/05/24 14:15	1

Eurofins Lubbock

2

<u>5</u>

O

7

9

10

12

13

15

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1

SDG: KH247030

Client Sample ID: TMW-17

Date Collected: 11/05/24 08:40 Date Received: 11/05/24 15:52

Lab Sample ID: 820-16056-1

Matrix: Water

Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
0.247		0.200	0.116	mg/L			12/02/24 21:29	20
0.686		0.00500	0.00198	mg/L			11/19/24 20:27	1
Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
24900		200	200	mg/L			11/11/24 08:02	1
	0.247 0.686 Result	0.686 Result Qualifier	0.247 0.200 0.686 0.00500 Result Qualifier RL	0.247 0.200 0.116 0.686 0.00500 0.00198 Result Qualifier RL RL	0.247 0.200 0.116 mg/L 0.686 0.00500 0.00198 mg/L Result Qualifier RL RL Unit	0.247 0.200 0.116 mg/L 0.686 0.00500 0.00198 mg/L Result Qualifier RL RL Unit D	0.247 0.200 0.116 mg/L 0.686 0.00500 0.00198 mg/L Result Qualifier RL RL Unit D Prepared	0.247 0.200 0.116 mg/L 12/02/24 21:29 0.686 0.00500 0.00198 mg/L 11/19/24 20:27 Result Qualifier RL RL Unit D Prepared Analyzed

Method: EPA 903.	0 - Radium-226	(GFPC)								
			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0157	U	0.0917	0.0918	1.00	0.194	pCi/L	11/08/24 08:24	12/02/24 15:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.5		30 - 110					11/08/24 08:24	12/02/24 15:31	1

			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.191	U	0.491	0.491	1.00	0.866	pCi/L	11/08/24 08:26	11/25/24 11:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.5		30 - 110					11/08/24 08:26	11/25/24 11:51	1
Y Carrier	83.4		30 - 110					11/08/24 08:26	11/25/24 11:51	1

Client Sample ID: TMW-19	Lab Sample ID: 820-16056-2
Date Collected: 11/05/24 10:37	Matrix: Water
Date Received: 11/05/24 15:52	

Method: EPA 300.0 - Anions, Ion C	hromatograp	hy - DL							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	907		5.00	2.50	mg/L			11/13/24 02:14	10
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	2390		20.0	20.0	mg/L			11/11/24 08:02	1

Client Sample ID: TMW-24	Lab Sample ID: 820-16056-3
Date Collected: 11/05/24 11:59	Matrix: Water
Date Received: 11/05/24 15:52	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	293		0.500	0.250	mg/L			11/13/24 02:27	1
- General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1110		20.0	20.0	mg/L			11/11/24 08:02	1

Surrogate Summary

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1

SDG: KH247030

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water Prep Type: Total/NA

				Percent Sur	rrogate Rec
		BFB	DBFM	DCA	TOL
Lab Sample ID	Client Sample ID	(74-124)	(75-131)	(63-144)	(80-120)
820-16056-1	TMW-17	98	110	109	101
LCS 860-198893/3	Lab Control Sample	97	106	100	98
LCSD 860-198893/4	Lab Control Sample Dup	97	104	104	100
MB 860-198893/9	Method Blank	96	106	109	101
Cumanata Langud					

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

Method: 8270E - Semivolatile Organic Compounds (GC-MS/MS)

Matrix: Water Prep Type: Total/NA

				Percent Su
		FBP	NBZ	TPHd14
Lab Sample ID	Client Sample ID	(43-130)	(37-133)	(47-130)
820-16056-1	TMW-17	81	114	70
LCS 860-198173/2-A	Lab Control Sample	100	123	72
LCSD 860-198173/3-A	Lab Control Sample Dup	103	123	78
MB 860-198173/1-A	Method Blank	107	120	81

Surrogate Legend

FBP = 2-Fluorobiphenyl

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)							
		TCX1	DCB1						
Lab Sample ID	Client Sample ID	(52-134)	(28-94)						
820-16056-1	TMW-17	76	46						
LCS 860-198202/4-A	Lab Control Sample	62	31						
LCSD 860-198202/5-A	Lab Control Sample Dup	63	32						
MB 860-198202/1-A	Method Blank	68	35						

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl (Surr)

Eurofins Lubbock

Released to Imaging: 2/14/2025 11:31:36 AM

_

4

_

<u>۾</u>

12

11

15

10

Tracer/Carrier Summary

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1 SDG: KH247030

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water Prep Type: Total/NA

			Percent Yield (Acceptance Limits)
		Ва	
Lab Sample ID	Client Sample ID	(30-110)	
820-16056-1	TMW-17	76.5	
LCS 160-687519/2-A	Lab Control Sample	97.5	
MB 160-687519/1-A	Method Blank	92.4	
Tracer/Carrier Legend			
Ba = Ba Carrier			

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water Prep Type: Total/NA

				Percent Yield (Acceptance Limits)
		Ва	Υ	
Lab Sample ID	Client Sample ID	(30-110)	(30-110)	
820-16056-1	TMW-17	76.5	83.4	
LCS 160-687520/2-A	Lab Control Sample	97.5	84.9	
MB 160-687520/1-A	Method Blank	92.4	81.9	
Tracer/Carrier Legend				
Ba = Ba Carrier				

Da - Da Carrier

Y = Y Carrier

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1

SDG: KH247030

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 860-198893/9

Matrix: Water

Analysis Batch: 198893

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	Pocult	Qualifier	RL	MDI	Unit	D	Prepared	Analyzod	Dil Fac
Benzene	<0.000460		0.00100	0.000460			Frepareu	Analyzed 11/11/24 08:03	1
Bromobenzene	<0.000486		0.00100	0.000486	mg/L			11/11/24 08:03	1
Bromochloromethane	<0.000577		0.00100	0.000400	_			11/11/24 08:03	1
Bromodichloromethane	<0.000577		0.00100	0.000577				11/11/24 08:03	· · · · · · · · · · · · · · · · · · ·
Bromoform	< 0.000633		0.00500	0.000633	•			11/11/24 08:03	1
Bromomethane	<0.00142		0.00500	0.00033	•			11/11/24 08:03	1
2-Butanone	<0.00142		0.0500	0.00142				11/11/24 08:03	
Carbon tetrachloride	<0.000896		0.00500	0.000896				11/11/24 08:03	1
Chlorobenzene	< 0.000455		0.00100	0.000455				11/11/24 08:03	1
Chloroethane	<0.00198		0.0100	0.00198				11/11/24 08:03	
Chloroform	<0.00198		0.0100	0.00198				11/11/24 08:03	1
Chloromethane	<0.00204		0.00100	0.000404				11/11/24 08:03	1
4-Chlorotoluene	<0.00386		0.00100	0.00204				11/11/24 08:03	
cis-1,2-Dichloroethene	<0.000380		0.00100	0.000380				11/11/24 08:03	1
cis-1,3-Dichloropropene	<0.00107		0.00100	0.000437	_			11/11/24 08:03	1
Dibromochloromethane	<0.000547		0.00500					11/11/24 08:03	
1,2-Dibromo-3-Chloropropane	<0.000547		0.00500	0.000547	mg/L mg/L			11/11/24 08:03	1
1,2-Dibromoethane	<0.000999		0.00500	0.000071	mg/L			11/11/24 08:03	1
1.2-Dichlorobenzene	<0.000999		0.00300	0.000333	mg/L			11/11/24 08:03	· · · · · · · · · · · · · · · · · · ·
1,3-Dichlorobenzene	<0.000429		0.00100		mg/L			11/11/24 08:03	1
1.4-Dichlorobenzene	< 0.000413		0.00100	0.000419	mg/L			11/11/24 08:03	1
Dichlorodifluoromethane	<0.000449		0.00100	0.000785	mg/L			11/11/24 08:03	
1,1-Dichloroethane	<0.000785		0.00100	0.000785	_			11/11/24 08:03	1
1,2-Dichloroethane	<0.000372		0.00100	0.00033	•			11/11/24 08:03	1
1,1-Dichloroethene	<0.000372		0.00100	0.000372				11/11/24 08:03	
1,2-Dichloropropane	<0.000756		0.00500	0.000756	_			11/11/24 08:03	1
1,3-Dichloropropane	< 0.000536		0.00500	0.000514	_			11/11/24 08:03	
2,2-Dichloropropane	< 0.000679		0.00500	0.000679	mg/L			11/11/24 08:03	· · · · · · · · · · · · · · · · · · ·
1,1-Dichloropropene	<0.000624		0.00500	0.000679	_			11/11/24 08:03	1
Ethylbenzene	< 0.000385		0.00100	0.000385				11/11/24 08:03	1
Hexachlorobutadiene	<0.000627		0.00500	0.000627				11/11/24 08:03	· · · · · · · · · · · · · · · · · · ·
Isopropylbenzene	<0.000592		0.00100	0.000592				11/11/24 08:03	1
Methylene Chloride	<0.00173		0.00500	0.00173				11/11/24 08:03	1
m,p-Xylenes	<0.00173		0.0100	0.00173				11/11/24 08:03	· · · · · · · · · · · · · · · · · · ·
MTBE	< 0.00124		0.00500	0.00124	_			11/11/24 08:03	1
Naphthalene	<0.00135		0.0100	0.00135	-			11/11/24 08:03	
n-Butylbenzene	<0.000510		0.00100	0.000510				11/11/24 08:03	
N-Propylbenzene	< 0.000429		0.00100	0.000429	_			11/11/24 08:03	1
o-Xylene	<0.000502		0.00100	0.000502	_			11/11/24 08:03	1
p-Cymene (p-Isopropyltoluene)	< 0.000676		0.00100	0.000676				11/11/24 08:03	· · · · · · · · · · · · 1
sec-Butylbenzene	<0.000468		0.00100	0.000468	-			11/11/24 08:03	1
Styrene	<0.000400		0.00100	0.000400	_			11/11/24 08:03	1
tert-Butylbenzene	<0.000442		0.00100	0.000442				11/11/24 08:03	
1,1,1,2-Tetrachloroethane	<0.000442		0.00100	0.000442	-			11/11/24 08:03	1
1,1,2,2-Tetrachloroethane	<0.00044		0.00100	0.00044	_			11/11/24 08:03	1
Tetrachloroethene	<0.000470		0.00100	0.000470				11/11/24 08:03	
Toluene	<0.000475		0.00100	0.000635	_			11/11/24 08:03	1
trans-1,2-Dichloroethene	<0.000473		0.00100	0.000473	_			11/11/24 08:03	1

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1

SDG: KH247030

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 860-198893/9

Matrix: Water

Analysis Batch: 198893

Client Sample ID: Method Blank

Prep Type: Total/NA

	MB	MR							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127	mg/L			11/11/24 08:03	1
1,2,3-Trichlorobenzene	<0.00177	U	0.00500	0.00177	mg/L			11/11/24 08:03	1
1,2,4-Trichlorobenzene	<0.00175	U	0.00500	0.00175	mg/L			11/11/24 08:03	1
1,1,1-Trichloroethane	<0.000585	U	0.00500	0.000585	mg/L			11/11/24 08:03	1
1,1,2-Trichloroethane	<0.000411	U	0.00100	0.000411	mg/L			11/11/24 08:03	1
Trichloroethene	<0.00150	U	0.00500	0.00150	mg/L			11/11/24 08:03	
Trichlorofluoromethane	<0.000560	U	0.00100	0.000560	mg/L			11/11/24 08:03	
1,2,3-Trichloropropane	<0.000470	U	0.00100	0.000470	mg/L			11/11/24 08:03	
1,2,4-Trimethylbenzene	< 0.000417	U	0.00100	0.000417	mg/L			11/11/24 08:03	
1,3,5-Trimethylbenzene	<0.000411	U	0.00100	0.000411	mg/L			11/11/24 08:03	
Vinyl chloride	<0.000428	U	0.00200	0.000428	mg/L			11/11/24 08:03	
Xylenes, Total	<0.00124	U	0.0100	0.00124	mg/L			11/11/24 08:03	1

мв мв

Surrogate	%Recovery (Qualifier Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96	74 - 124		11/11/24 08:03	1
Dibromofluoromethane (Surr)	106	75 - 131		11/11/24 08:03	1
1,2-Dichloroethane-d4 (Surr)	109	63 - 144		11/11/24 08:03	1
Toluene-d8 (Surr)	101	80 - 120		11/11/24 08:03	1

Lab Sample ID: LCS 860-198893/3

Matrix: Water

Analysis Batch: 198893

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	0.0500	0.05213		mg/L		104	75 - 125
Bromobenzene	0.0500	0.04666		mg/L		93	75 - 125
Bromochloromethane	0.0500	0.05242		mg/L		105	60 - 140
Bromodichloromethane	0.0500	0.05185		mg/L		104	75 - 125
Bromoform	0.0500	0.04706		mg/L		94	70 - 130
Bromomethane	0.0500	0.05157		mg/L		103	60 - 140
2-Butanone	0.250	0.2483		mg/L		99	60 - 140
Carbon tetrachloride	0.0500	0.05302		mg/L		106	70 - 125
Chlorobenzene	0.0500	0.04940		mg/L		99	82 - 135
Chloroethane	0.0500	0.05754		mg/L		115	60 - 140
Chloroform	0.0500	0.05451		mg/L		109	70 - 121
Chloromethane	0.0500	0.04364		mg/L		87	60 - 140
4-Chlorotoluene	0.0500	0.04911		mg/L		98	74 - 125
cis-1,2-Dichloroethene	0.0500	0.05346		mg/L		107	75 - 125
cis-1,3-Dichloropropene	0.0500	0.05264		mg/L		105	74 - 125
Dibromochloromethane	0.0500	0.04972		mg/L		99	73 - 125
1,2-Dibromo-3-Chloropropane	0.0500	0.04474		mg/L		89	59 - 125
1,2-Dibromoethane	0.0500	0.04865		mg/L		97	73 - 125
1,2-Dichlorobenzene	0.0500	0.04752		mg/L		95	75 - 125
1,3-Dichlorobenzene	0.0500	0.04715		mg/L		94	75 - 125
1,4-Dichlorobenzene	0.0500	0.04660		mg/L		93	75 - 125
Dichlorodifluoromethane	0.0500	0.03642		mg/L		73	50 - 150
1,1-Dichloroethane	0.0500	0.05601		mg/L		112	71 - 130
1,2-Dichloroethane	0.0500	0.05086		mg/L		102	72 - 130

Spike

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1 SDG: KH247030

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 860-198893/3

Matrix: Water

Analysis Batch: 198893

Client Sample ID: Lab Control Sample

Prep Type: Total/NA LCS LCS %Rec

	Бріке	LUS	LUS		%Rec	
Analyte	Added	Result	Qualifier Unit	D %Red	Limits	
1,1-Dichloroethene	0.0500	0.05713	mg/L		50 - 150	
1,2-Dichloropropane	0.0500	0.05331	mg/L	107	7 74 - 125	
1,3-Dichloropropane	0.0500	0.04938	mg/L	99	9 75 - 125	
2,2-Dichloropropane	0.0500	0.05613	mg/L	112	2 75 - 125	
1,1-Dichloropropene	0.0500	0.05427	mg/L	109	9 75 - 125	
Ethylbenzene	0.0500	0.05134	mg/L	103	3 75 - 125	
Hexachlorobutadiene	0.0500	0.04775	mg/L	96	5 75 - 125	
Isopropylbenzene	0.0500	0.05155	mg/L	103	3 75 - 125	
Methylene Chloride	0.0500	0.05105	mg/L	102	2 71 - 125	
m,p-Xylenes	0.0500	0.05109	mg/L	102	2 75 - 125	
MTBE	0.0500	0.05199	mg/L	104	4 65 - 135	
Naphthalene	0.0500	0.04737	mg/L	95	5 70 - 130	
n-Butylbenzene	0.0500	0.04938	mg/L	99	9 75 - 125	
N-Propylbenzene	0.0500	0.04993	mg/L	100	75 - 125	
o-Xylene	0.0500	0.05098	mg/L	102	2 75 - 125	
p-Cymene (p-Isopropyltoluene)	0.0500	0.04963	mg/L	99	9 75 - 125	
sec-Butylbenzene	0.0500	0.04908	mg/L	98	3 75 - 125	
Styrene	0.0500	0.05148	mg/L	103	3 75 - 125	
tert-Butylbenzene	0.0500	0.04875	mg/L	97	7 75 - 125	
1,1,1,2-Tetrachloroethane	0.0500	0.04926	mg/L	99	9 72 - 125	
1,1,2,2-Tetrachloroethane	0.0500	0.04775	mg/L	96	6 74 - 125	
Tetrachloroethene	0.0500	0.04883	mg/L	98	3 71 - 125	
Toluene	0.0500	0.04957	mg/L	99	9 75 - 130	
trans-1,2-Dichloroethene	0.0500	0.05278	mg/L	106	5 75 - 125	
trans-1,3-Dichloropropene	0.0500	0.05077	mg/L	102	2 66 - 125	
1,2,3-Trichlorobenzene	0.0500	0.04649	mg/L	93	3 75 - 137	
1,2,4-Trichlorobenzene	0.0500	0.04628	mg/L	93	3 75 - 135	
1,1,1-Trichloroethane	0.0500	0.05395	mg/L	108	3 70 - 130	
1,1,2-Trichloroethane	0.0500	0.04907	mg/L	98	3 75 - 130	
Trichloroethene	0.0500	0.05030	mg/L	101	1 75 ₋ 135	
Trichlorofluoromethane	0.0500	0.05816	mg/L	116	60 - 140	
1,2,3-Trichloropropane	0.0500	0.04662	mg/L	93	3 75 - 125	
1,2,4-Trimethylbenzene	0.0500	0.04958	mg/L	99	9 75 - 125	
1,3,5-Trimethylbenzene	0.0500	0.04870	mg/L	97	7 60 - 140	
Vinyl chloride	0.0500	0.05387	mg/L	108	3 60 - 140	
			-			

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		74 - 124
Dibromofluoromethane (Surr)	106		75 - 131
1,2-Dichloroethane-d4 (Surr)	100		63 - 144
Toluene-d8 (Surr)	98		80 - 120

Lab Sample ID: LCSD 860-198893/4

Matrix: Water

Analysis Batch: 198893									
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.05224		mg/L		104	75 - 125	0	25

Eurofins Lubbock

Prep Type: Total/NA

Client Sample ID: Lab Control Sample Dup

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1 SDG: KH247030

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 860-198893/4

Matrix: Water

Analysis Batch: 198893

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Bromobenzene	0.0500	0.04772		mg/L		95	75 - 125	2	25
Bromochloromethane	0.0500	0.05332		mg/L		107	60 - 140	2	25
Bromodichloromethane	0.0500	0.05241		mg/L		105	75 - 125	1	25
Bromoform	0.0500	0.05008		mg/L		100	70 - 130	6	25
Bromomethane	0.0500	0.05051		mg/L		101	60 - 140	2	25
2-Butanone	0.250	0.2838		mg/L		114	60 - 140	13	25
Carbon tetrachloride	0.0500	0.05265		mg/L		105	70 - 125	1	25
Chlorobenzene	0.0500	0.04983		mg/L		100	82 - 135	1	25
Chloroethane	0.0500	0.05273		mg/L		105	60 - 140	9	25
Chloroform	0.0500	0.05351		mg/L		107	70 - 121	2	25
Chloromethane	0.0500	0.04154		mg/L		83	60 - 140	5	25
4-Chlorotoluene	0.0500	0.04920		mg/L		98	74 - 125	0	25
cis-1,2-Dichloroethene	0.0500	0.05291		mg/L		106	75 ₋ 125	1	25
cis-1,3-Dichloropropene	0.0500	0.05350		mg/L		107	74 - 125	2	25
Dibromochloromethane	0.0500	0.05211		mg/L		104	73 _ 125	5	25
1,2-Dibromo-3-Chloropropane	0.0500	0.05170		mg/L		103	59 - 125	14	25
1,2-Dibromoethane	0.0500	0.05209		mg/L		104	73 - 125	7	25
1.2-Dichlorobenzene	0.0500	0.04830		mg/L		97	75 - 125	2	25
1,3-Dichlorobenzene	0.0500	0.04737		mg/L		95	75 ₋ 125	0	25
1,4-Dichlorobenzene	0.0500	0.04700		mg/L		94	75 - 125	1	25
Dichlorodifluoromethane	0.0500	0.03411		mg/L		68	50 - 150	7	25
1,1-Dichloroethane	0.0500	0.05507		mg/L		110	71 - 130	2	25
1,2-Dichloroethane	0.0500	0.05281		mg/L		106	72 - 130	4	25
1,1-Dichloroethene	0.0500	0.05491		mg/L		110	50 - 150	4	25
1,2-Dichloropropane	0.0500	0.05299		mg/L		106	74 - 125	1	25
1,3-Dichloropropane	0.0500	0.05256		mg/L		105	75 - 125	6	25
2,2-Dichloropropane	0.0500	0.05581		mg/L		112	75 - 125	1	25
1,1-Dichloropropene	0.0500	0.05391		mg/L		108	75 - 125	1	25
Ethylbenzene	0.0500	0.05148		mg/L		103	75 - 125	0	25
Hexachlorobutadiene	0.0500	0.04747		mg/L		95	75 - 125	1	25
Isopropylbenzene	0.0500	0.05141		mg/L		103	75 - 125	0	25
Methylene Chloride	0.0500	0.05148		mg/L		103	71 - 125	1	25
m,p-Xylenes	0.0500	0.05148		mg/L		103	75 - 125	1	25
MTBE	0.0500	0.05523		mg/L		110	65 - 135	6	25
Naphthalene	0.0500	0.05196		mg/L		104	70 - 130	9	25
n-Butylbenzene	0.0500	0.04866				97	75 - 125	1	25
N-Propylbenzene	0.0500	0.04964		mg/L mg/L		99	75 - 125 75 - 125	1	25
o-Xylene	0.0500	0.05125		mg/L		102	75 - 125 75 - 125	1	25
p-Cymene (p-Isopropyltoluene)	0.0500	0.04939		mg/L		99	75 - 125	0	25
sec-Butylbenzene	0.0500	0.04924		mg/L		98	75 - 125	0	25
Styrene	0.0500	0.05169		mg/L		103	75 - 125 75 - 125	0	25
tert-Butylbenzene	0.0500	0.04877		mg/L		98	75 - 125	0	25
1,1,1,2-Tetrachloroethane	0.0500	0.04977		mg/L		100	73 - 125 72 - 125	1	25
1,1,2,2-Tetrachloroethane	0.0500	0.04992		mg/L		104	72 - 125 74 - 125	9	25
Tetrachloroethene	0.0500	0.05211				100	74 - 125	2	25
Toluene	0.0500	0.05035		mg/L			71 - 125 75 - 130	2	
				mg/L		101			25
trans-1,2-Dichloroethene	0.0500	0.05187		mg/L		104	75 - 125	2	25
trans-1,3-Dichloropropene 1,2,3-Trichlorobenzene	0.0500 0.0500	0.05210 0.04909		mg/L mg/L		104 98	66 ₋ 125 75 ₋ 137	3 5	25 25

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1 SDG: KH247030

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 860-198893/4

Matrix: Water

Analysis Batch: 198893

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,2,4-Trichlorobenzene	0.0500	0.04740		mg/L		95	75 - 135	2	25
1,1,1-Trichloroethane	0.0500	0.05366		mg/L		107	70 - 130	1	25
1,1,2-Trichloroethane	0.0500	0.05104		mg/L		102	75 - 130	4	25
Trichloroethene	0.0500	0.05111		mg/L		102	75 - 135	2	25
Trichlorofluoromethane	0.0500	0.05089		mg/L		102	60 - 140	13	25
1,2,3-Trichloropropane	0.0500	0.05320		mg/L		106	75 - 125	13	25
1,2,4-Trimethylbenzene	0.0500	0.04998		mg/L		100	75 - 125	1	25
1,3,5-Trimethylbenzene	0.0500	0.04914		mg/L		98	60 - 140	1	25
Vinyl chloride	0.0500	0.04970		mg/L		99	60 - 140	8	25

LCSD LCSD %Recovery Qualifier Limits Surrogate 4-Bromofluorobenzene (Surr) 97 74 - 124 Dibromofluoromethane (Surr) 104 75 - 131 1,2-Dichloroethane-d4 (Surr) 104 63 - 144 Toluene-d8 (Surr) 100 80 - 120

Method: 8270E - Semivolatile Organic Compounds (GC-MS/MS)

Lab Sample ID: MB 860-198173/1-A

Matrix: Water

Analysis Batch: 198625

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 198173

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.0000626	U	0.000571	0.0000626	mg/L		11/06/24 15:20	11/08/24 20:08	1
2-Methylnaphthalene	<0.0000603	U	0.000571	0.0000603	mg/L		11/06/24 15:20	11/08/24 20:08	1
Acenaphthene	<0.000107	U	0.000571	0.000107	mg/L		11/06/24 15:20	11/08/24 20:08	1
Acenaphthylene	<0.0000996	U	0.000571	0.0000996	mg/L		11/06/24 15:20	11/08/24 20:08	1
Anthracene	<0.0000938	U	0.000571	0.0000938	mg/L		11/06/24 15:20	11/08/24 20:08	1
Benzo[a]anthracene	<0.0000286	U	0.0000286	0.0000286	mg/L		11/06/24 15:20	11/08/24 20:08	1
Benzo[a]pyrene	<0.0000300	U	0.0000571	0.0000300	mg/L		11/06/24 15:20	11/08/24 20:08	1
Benzo[b]fluoranthene	<0.0000664	U	0.000571	0.0000664	mg/L		11/06/24 15:20	11/08/24 20:08	1
Benzo[g,h,i]perylene	<0.0000345	U	0.000571	0.0000345	mg/L		11/06/24 15:20	11/08/24 20:08	1
Benzo[k]fluoranthene	<0.0000473	U	0.000571	0.0000473	mg/L		11/06/24 15:20	11/08/24 20:08	1
Chrysene	<0.0000815	U	0.000571	0.0000815	mg/L		11/06/24 15:20	11/08/24 20:08	1
Dibenz(a,h)anthracene	<0.0000509	U	0.000114	0.0000509	mg/L		11/06/24 15:20	11/08/24 20:08	1
Fluoranthene	<0.0000883	U	0.000571	0.0000883	mg/L		11/06/24 15:20	11/08/24 20:08	1
Fluorene	<0.0000948	U	0.000571	0.0000948	mg/L		11/06/24 15:20	11/08/24 20:08	1
Indeno[1,2,3-cd]pyrene	<0.000100	U	0.000571	0.000100	mg/L		11/06/24 15:20	11/08/24 20:08	1
Naphthalene	<0.0000944	U	0.000571	0.0000944	mg/L		11/06/24 15:20	11/08/24 20:08	1
Phenanthrene	<0.000134	U	0.000571	0.000134	mg/L		11/06/24 15:20	11/08/24 20:08	1
Pyrene	<0.0000849	U	0.000571	0.0000849	mg/L		11/06/24 15:20	11/08/24 20:08	1
	МВ	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

43 - 130 2-Fluorobiphenyl 107 11/06/24 15:20 11/08/24 20:08 120 37 - 133 11/06/24 15:20 11/08/24 20:08 Nitrobenzene-d5 (Surr) p-Terphenyl-d14 (Surr) 81 47 - 130 11/06/24 15:20 11/08/24 20:08

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1

SDG: KH247030

Method: 8270E - Semivolatile Organic Compounds (GC-MS/MS) (Continued)

Lab Sample ID: LCS 860-198173/2-A

Matrix: Water

Analysis Batch: 198625

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 198173

	Spike	LCS L	_CS		%Rec	
Analyte	Added	Result (Qualifier Unit	D %Rec	Limits	
1-Methylnaphthalene	0.00286	0.001924	mg/L	67	52 - 130	
2-Methylnaphthalene	0.00286	0.001763	mg/L	62	25 _ 175	
Acenaphthene	0.00286	0.002193	mg/L	77	60 - 132	
Acenaphthylene	0.00286	0.002552	mg/L	89	54 - 126	
Anthracene	0.00286	0.002671	mg/L	93	43 - 135	
Benzo[a]anthracene	0.00286	0.003019	mg/L	106	42 - 133	
Benzo[a]pyrene	0.00286	0.002949	mg/L	103	32 - 148	
Benzo[b]fluoranthene	0.00286	0.003101	mg/L	109	42 - 140	
Benzo[g,h,i]perylene	0.00286	0.002662	mg/L	93	25 ₋ 195	
Benzo[k]fluoranthene	0.00286	0.002818	mg/L	99	25 - 146	
Chrysene	0.00286	0.002822	mg/L	99	47 - 130	
Dibenz(a,h)anthracene	0.00286	0.002651	mg/L	93	32 - 200	
Fluoranthene	0.00286	0.002943	mg/L	103	43 - 130	
Fluorene	0.00286	0.002575	mg/L	90	70 - 130	
Indeno[1,2,3-cd]pyrene	0.00286	0.002585	mg/L	90	29 - 151	
Naphthalene	0.00286	0.001975	mg/L	69	36 - 120	
Phenanthrene	0.00286	0.002663	mg/L	93	65 - 120	
Pyrene	0.00286	0.002577	mg/L	90	70 - 130	

LCS LCS

Surrogate	%Recovery Qu	ıalifier Limits
2-Fluorobiphenyl	100	43 - 130
Nitrobenzene-d5 (Surr)	123	37 - 133
p-Terphenyl-d14 (Surr)	72	47 - 130

Lab Sample ID: LCSD 860-198173/3-A

Matrix: Water

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prop Batch: 199173

								7 10 - 1 - 1	
Analysis Batch: 198625							Prep I	Batch: 1	98173
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1-Methylnaphthalene	0.00286	0.001881		mg/L		66	52 - 130	2	30
2-Methylnaphthalene	0.00286	0.001736		mg/L		61	25 - 175	2	30
Acenaphthene	0.00286	0.002330		mg/L		82	60 - 132	6	30
Acenaphthylene	0.00286	0.002500		mg/L		88	54 - 126	2	30
Anthracene	0.00286	0.002789		mg/L		98	43 - 135	4	30
Benzo[a]anthracene	0.00286	0.003117		mg/L		109	42 - 133	3	30
Benzo[a]pyrene	0.00286	0.002885		mg/L		101	32 - 148	2	30
Benzo[b]fluoranthene	0.00286	0.002897		mg/L		101	42 - 140	7	30
Benzo[g,h,i]perylene	0.00286	0.002579		mg/L		90	25 - 195	3	30
Benzo[k]fluoranthene	0.00286	0.003026		mg/L		106	25 - 146	7	30
Chrysene	0.00286	0.002894		mg/L		101	47 - 130	3	30
Dibenz(a,h)anthracene	0.00286	0.002590		mg/L		91	32 - 200	2	30
Fluoranthene	0.00286	0.002994		mg/L		105	43 - 130	2	30
Fluorene	0.00286	0.002586		mg/L		91	70 - 130	0	30
Indeno[1,2,3-cd]pyrene	0.00286	0.002536		mg/L		89	29 - 151	2	30
Naphthalene	0.00286	0.001955		mg/L		68	36 - 120	1	30
Phenanthrene	0.00286	0.002759		mg/L		97	65 - 120	4	30
Pyrene	0.00286	0.002676		mg/L		94	70 - 130	4	30

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1

SDG: KH247030

Method: 8270E - Semivolatile Organic Compounds (GC-MS/MS) (Continued)

Lab Sample ID: LCSD 860-198173/3-A

Matrix: Water

Analysis Batch: 198625

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 198173

LCSD	LCSD
------	------

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	103		43 - 130
Nitrobenzene-d5 (Surr)	123		37 - 133
p-Terphenyl-d14 (Surr)	78		47 - 130

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 860-198202/1-A

Matrix: Water

Analysis Batch: 198229

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 198202

	MB	MR							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0000459	U	0.000250	0.0000459	mg/L		11/07/24 08:43	11/07/24 13:21	1
PCB-1221	< 0.0000459	U	0.000500	0.0000459	mg/L		11/07/24 08:43	11/07/24 13:21	1
PCB-1232	< 0.0000459	U	0.000500	0.0000459	mg/L		11/07/24 08:43	11/07/24 13:21	1
PCB-1242	<0.0000459	U	0.000250	0.0000459	mg/L		11/07/24 08:43	11/07/24 13:21	1
PCB-1248	< 0.0000459	U	0.000500	0.0000459	mg/L		11/07/24 08:43	11/07/24 13:21	1
PCB-1254	<0.0000605	U	0.000500	0.0000605	mg/L		11/07/24 08:43	11/07/24 13:21	1
PCB-1260	<0.0000605	U	0.000250	0.0000605	mg/L		11/07/24 08:43	11/07/24 13:21	1

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68	52 - 134	11/07/24 08:43	11/07/24 13:21	1
DCB Decachlorobiphenyl (Surr)	35	28 - 94	11/07/24 08:43	11/07/24 13:21	1

Lab Sample ID: LCS 860-198202/4-A

Matrix: Water

Analysis Batch: 198229

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 198202

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
PCB-1016	 0.00500	0.003948		mg/L		79	43 - 130	
PCB-1260	0.00500	0.003421		mg/L		68	50 - 95	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	62		52 - 134
DCB Decachlorobiphenyl (Surr)	31		28 - 94

Lab Sample ID: LCSD 860-198202/5-A

Matrix: Water

Analysis Batch: 198229

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA **Prep Batch: 198202**

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
PCB-1016	0.00500	0.004040		mg/L		81	43 - 130	2	20
PCB-1260	0.00500	0.003515		mg/L		70	50 - 95	3	20

ICSD ICSD

Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	63		52 - 134
DCB Decachlorobinhenyl (Surr)	32		28 - 94

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1

SDG: KH247030

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-198125/3

Matrix: Water

Analysis Batch: 198125

Client Sample ID: Method Blank

Prep Type: Total/NA

MB MB Dil Fac Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Chloride <0.250 U 0.500 0.250 mg/L 11/06/24 10:38 Fluoride <0.100 U 0.500 0.100 mg/L 11/06/24 10:38 Sulfate <0.200 U 0.500 0.200 mg/L 11/06/24 10:38

Client Sample ID: Method Blank

Lab Sample ID: MB 860-198125/47 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 198125

MB MB Dil Fac Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Chloride <0.250 U 0.500 0.250 11/06/24 15:21 Fluoride <0.100 U 0.500 11/06/24 15:21 0.100 mg/L Sulfate <0.200 U 0.500 0.200 mg/L 11/06/24 15:21

Lab Sample ID: LCS 860-198125/4 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 198125

LCS LCS Spike %Rec Analyte Added Result Qualifier Unit D %Rec Limits Chloride 10.0 10.31 mg/L 103 90 - 110

Fluoride 10.0 10.16 102 90 - 110 mg/L Sulfate 10.0 10.35 mg/L 103 90 - 110

Lab Sample ID: LCS 860-198125/48 Client Sample ID: Lab Control Sample Prep Type: Total/NA

Matrix: Water

Analysis Batch: 198125

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	10.0	10.39		mg/L		104	90 - 110	
Fluoride	10.0	10.31		mg/L		103	90 - 110	
Sulfate	10.0	10.46		mg/L		105	90 - 110	

Lab Sample ID: LCSD 860-198125/49 Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Matrix: Water

Analysis Batch: 198125

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	 10.0	10.39		mg/L		104	90 - 110	0	20	
Fluoride	10.0	10.31		mg/L		103	90 - 110	0	20	
Sulfate	10.0	10.48		mg/L		105	90 - 110	0	20	

Lab Sample ID: LCSD 860-198125/5 Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Matrix: Water

Analysis Batch: 198125

7									
	Spike	LCSD	LCSD			%Rec		RPD	
Analyte	Added	Result	Qualifier Unit	D	%Rec	Limits	RPD	Limit	
Chloride	10.0	10.33	mg/l		103	90 - 110	0	20	
Fluoride	10.0	10.18	mg/l	_	102	90 - 110	0	20	
Sulfate	10.0	10.37	mg/l	_	104	90 - 110	0	20	

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1

SDG: KH247030

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LLCS 860-198125/7

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

Matrix: Water

Analysis Batch: 198125

	Spike	LLCS	LLCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	0.500	0.5647		mg/L		113	50 - 150	
Fluoride	0.500	0.4856	J	mg/L		97	50 - 150	
Sulfate	0.500	0.6141		mg/L		123	50 - 150	

Lab Sample ID: MB 860-198126/3

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

Client Sample ID: Method Blank

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 198126

	MB	МВ							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.0391	U	0.100	0.0391	mg/L			11/06/24 10:38	1
Nitrite as N	< 0.0699	U	0.100	0.0699	mg/L			11/06/24 10:38	1

Lab Sample ID: MB 860-198126/47

Matrix: Water

Analysis Batch: 198126

	МВ	мв							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.0391	U	0.100	0.0391	mg/L			11/06/24 15:21	1
Nitrite as N	< 0.0699	U	0.100	0.0699	mg/L			11/06/24 15:21	1

Lab Sample ID: LCS 860-198126/4 Client Sample ID: Lab Control Sample Prep Type: Total/NA **Matrix: Water**

Analysis Batch: 198126

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Nitrate as N	10.0	10.52		mg/L	_	105	90 - 110	
Nitrite as N	10.0	9.882		mg/L		99	90 - 110	

Lab Sample ID: LCS 860-198126/48 Client Sample ID: Lab Control Sample Prep Type: Total/NA

Matrix: Water

Analysis Batch: 198126

	Spike	LCS	LCS			%Rec	
Analyte	Added	Result	Qualifier Unit	D	%Rec	Limits	
Nitrate as N	10.0	10.60	mg/L		106	90 - 110	
Nitrite as N	10.0	9.957	mg/L		100	90 - 110	

Lab Sample ID: LCSD 860-198126/49 Client Sample ID: Lab Control Sample Dup

Matrix: Water

Analysis Batch: 198126

-	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Nitrate as N	10.0	10.58		mg/L		106	90 - 110	0	20	
Nitrite as N	10.0	9.971		ma/L		100	90 - 110	0	20	

Lab Sample ID: LCSD 860-198126/5 Client Sample ID: Lab Control Sample Dup

Matrix: Water

Analysis Batch: 198126

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Nitrate as N	10.0	10.53		mg/L		105	90 - 110	0	20

Eurofins Lubbock

Prep Type: Total/NA

Prep Type: Total/NA

Released to Imaging: 2/14/2025 11:31:36 AM

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1

SDG: KH247030

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 860-198126/5 **Matrix: Water**

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analysis Batch: 198126

Spike LCSD LCSD %Rec RPD Added Result Qualifier Unit %Rec Limits RPD Limit Analyte D Nitrite as N 10.0 9 899 90 - 110 ma/L 99 20

Lab Sample ID: LLCS 860-198126/6 Client Sample ID: Lab Control Sample **Matrix: Water**

Prep Type: Total/NA

Analysis Batch: 198126

Spike LLCS LLCS %Rec Added Result Qualifier Unit D Limits Analyte %Rec

Nitrate as N 0.100 0.1127 mg/L 113 50 - 150 0.100 0.08785 J Nitrite as N mg/L 88 50 - 150

Lab Sample ID: MB 860-199248/13 Client Sample ID: Method Blank

Matrix: Water Prep Type: Total/NA

Analysis Batch: 199248

MB MB

Dil Fac Analyte Result Qualifier RL MDL Unit Prepared Analyzed Chloride <0.250 0.500 mg/L 11/12/24 15:42 0.250

Lab Sample ID: LCS 860-199248/14 Client Sample ID: Lab Control Sample

Matrix: Water Prep Type: Total/NA

LCS LCS

LLCS LLCS

Analysis Batch: 199248

Spike %Rec Analyte Added Result Qualifier Unit D %Rec Limits 10.0 90 - 110 Chloride 10.26 mg/L 103

Lab Sample ID: LCSD 860-199248/15 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 199248

LCSD LCSD RPD Spike %Rec Analyte Added Result Qualifier Limits RPD Limit Unit %Rec Chloride 10.0 9.929 mg/L 90 - 110 20

Lab Sample ID: LLCS 860-199248/17 Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA Analysis Batch: 199248

Spike Analyte Added Result Qualifier Unit D %Rec Limits Chloride 0.500 0.5931 119 50 - 150 mg/L

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 860-198887/1-A Client Sample ID: Method Blank

Matrix: Water Prep Type: Total/NA

Analysis Batch: 199266 **Prep Batch: 198887** MB MB

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Aluminum <0.00549 U 0.0200 11/11/24 03:42 11/11/24 14:34 0.00549 mg/L Antimony <0.000750 U 0.00200 11/11/24 03:42 11/11/24 14:34 0.000750 mg/L <0.000690 U 0.00400 0.000690 11/11/24 03:42 11/11/24 14:34 Arsenic mg/L <0.00134 U 0.00400 11/11/24 03:42 11/11/24 14:34 Barium 0.00134 ma/L Beryllium <0.000271 U 0.00200 0.000271 mg/L 11/11/24 03:42 11/11/24 14:34

Eurofins Lubbock

%Rec

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

MR MR

Job ID: 820-16056-1

SDG: KH247030

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 860-198887/1-A

Matrix: Water

Analysis Batch: 199266

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 198887

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.00401	U	0.0100	0.00401	mg/L		11/11/24 03:42	11/11/24 14:34	1
Cadmium	<0.000240	U	0.00200	0.000240	mg/L		11/11/24 03:42	11/11/24 14:34	1
Chromium	<0.000560	U	0.00400	0.000560	mg/L		11/11/24 03:42	11/11/24 14:34	1
Cobalt	<0.000355	U	0.00200	0.000355	mg/L		11/11/24 03:42	11/11/24 14:34	1
Copper	<0.00100	U	0.00400	0.00100	mg/L		11/11/24 03:42	11/11/24 14:34	1
Iron	<0.00445	U	0.0200	0.00445	mg/L		11/11/24 03:42	11/11/24 14:34	1
Lead	<0.000367	U	0.00200	0.000367	mg/L		11/11/24 03:42	11/11/24 14:34	1
Manganese	<0.000759	U	0.00200	0.000759	mg/L		11/11/24 03:42	11/11/24 14:34	1
Molybdenum	<0.000255	U	0.00200	0.000255	mg/L		11/11/24 03:42	11/11/24 14:34	1
Nickel	<0.000528	U	0.00200	0.000528	mg/L		11/11/24 03:42	11/11/24 14:34	1
Selenium	<0.000590	U	0.00200	0.000590	mg/L		11/11/24 03:42	11/11/24 14:34	1
Silver	<0.000390	U	0.00200	0.000390	mg/L		11/11/24 03:42	11/11/24 14:34	1
Thallium	<0.000185	U	0.00200	0.000185	mg/L		11/11/24 03:42	11/11/24 14:34	1
Uranium	<0.000211	U	0.00100	0.000211	mg/L		11/11/24 03:42	11/11/24 14:34	1
Zinc	<0.00274	U	0.00400	0.00274	mg/L		11/11/24 03:42	11/11/24 14:34	1
_									

Lab Sample ID: LCS 860-198887/2-A

Matrix: Water

Analysis Batch: 199266

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 198887

Spike LCS LCS %Rec

	эріке	LUS	LUS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Aluminum	0.500	0.5008		mg/L		100	80 - 120	
Antimony	0.100	0.09882		mg/L		99	80 - 120	
Arsenic	0.100	0.09932		mg/L		99	80 - 120	
Barium	0.100	0.09831		mg/L		98	80 - 120	
Beryllium	0.100	0.09866		mg/L		99	80 - 120	
Boron	0.100	0.09194		mg/L		92	80 - 120	
Cadmium	0.100	0.09842		mg/L		98	80 - 120	
Chromium	0.100	0.09902		mg/L		99	80 - 120	
Cobalt	0.100	0.09808		mg/L		98	80 - 120	
Copper	0.100	0.09726		mg/L		97	80 - 120	
Iron	0.500	0.4763		mg/L		95	80 - 120	
Lead	0.100	0.09909		mg/L		99	80 - 120	
Manganese	0.100	0.09954		mg/L		100	80 - 120	
Molybdenum	0.100	0.09926		mg/L		99	80 - 120	
Nickel	0.100	0.09849		mg/L		98	80 - 120	
Selenium	0.100	0.09789		mg/L		98	80 - 120	
Silver	0.0500	0.05009		mg/L		100	80 - 120	
Thallium	0.100	0.09973		mg/L		100	80 - 120	
Uranium	0.0249	0.02351		mg/L		94	80 - 120	
Zinc	0.100	0.1018		mg/L		102	80 - 120	

Lab Sample ID: LCSD 860-198887/3-A

Matrix: Water

Analysis Batch: 199266

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA **Prep Batch: 198887**

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit %Rec Limits Limit Aluminum 0.500 0.5035 101 80 - 120 20 mg/L 0.100 Antimony 0.1001 mg/L 100 80 - 120 20

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1 SDG: KH247030

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 860-198887/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA Analysis Batch: 199266 **Prep Batch: 198887**

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	0.100	0.1008		mg/L		101	80 - 120	1	20
Barium	0.100	0.09890		mg/L		99	80 - 120	1	20
Beryllium	0.100	0.09794		mg/L		98	80 - 120	1	20
Boron	0.100	0.09475		mg/L		95	80 - 120	3	20
Cadmium	0.100	0.09931		mg/L		99	80 - 120	1	20
Chromium	0.100	0.1002		mg/L		100	80 - 120	1	20
Cobalt	0.100	0.09905		mg/L		99	80 - 120	1	20
Copper	0.100	0.09827		mg/L		98	80 - 120	1	20
Iron	0.500	0.4823		mg/L		96	80 - 120	1	20
Lead	0.100	0.09980		mg/L		100	80 - 120	1	20
Manganese	0.100	0.1019		mg/L		102	80 - 120	2	20
Molybdenum	0.100	0.09978		mg/L		100	80 - 120	1	20
Nickel	0.100	0.09961		mg/L		100	80 - 120	1	20
Selenium	0.100	0.1022		mg/L		102	80 - 120	4	20
Silver	0.0500	0.05071		mg/L		101	80 - 120	1	20
Thallium	0.100	0.09960		mg/L		100	80 - 120	0	20
Uranium	0.0249	0.02355		mg/L		95	80 - 120	0	20
Zinc	0.100	0.1020		mg/L		102	80 - 120	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 860-199408/10-A Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 199649

мв мв

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000706	U	0.000200	0.0000706	mg/L		11/13/24 07:33	11/13/24 19:24	1

Lab Sample ID: LCS 860-199408/11-A **Client Sample ID: Lab Control Sample**

Matrix: Water Analysis Batch: 199649

LCS LCS Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits 0.00200 Mercury 0.002096 105 80 - 120 mg/L

Lab Sample ID: LCSD 860-199408/12-A

Matrix: Water

Analysis Batch: 199649

	Бріке	LCSD	LCSD			%Rec		KPD	
Analyte	Added	Result	Qualifier	Unit D	%Rec	Limits	RPD	Limit	
Mercury	0.00200	0.002142		mg/L	107	80 - 120	2	20	

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 860-202173/8 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 202173

MB MB Result Qualifier RL Analyte MDL Unit D Prepared Analyzed Dil Fac 0.0100 Phenols, Total <0.00580 U 11/25/24 18:37 0.00580 mg/L

Eurofins Lubbock

Prep Batch: 199408

Prep Type: Total/NA

Prep Batch: 199408

Prep Type: Total/NA

Prep Batch: 199408

Client Sample ID: Lab Control Sample Dup

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1

SDG: KH247030

Method: 420.4 - Phenolics, Total Recoverable (Continued)

Lab Sample ID: LCS 860-202173/9

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analysis Batch: 202173

Matrix: Water

LCS LCS Spike %Rec Analyte Added Result Qualifier %Rec Limits Unit Phenols, Total 0.100 0.1021 mg/L 102 90 - 110

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 860-202173/10 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 202173

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit Phenols, Total 0.100 0.1047 mg/L 105 90 - 110

Lab Sample ID: LLCS 860-202173/11 Client Sample ID: Lab Control Sample

Matrix: Water Prep Type: Total/NA

Analysis Batch: 202173

Spike LLCS LLCS %Rec Analyte Added Result Qualifier Unit %Rec Limits

0.0100 Phenols, Total 0.01420 mg/L 142 50 - 150

Lab Sample ID: MB 860-202485/43 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 202485

мв мв

Result Qualifier Analyte RL MDL Unit D Prepared Analyzed Dil Fac Phenols, Total <0.00580 0.0100 0.00580 ma/L 11/26/24 20:41

Lab Sample ID: LCS 860-202485/44 Client Sample ID: Lab Control Sample Prep Type: Total/NA

Matrix: Water

Analysis Batch: 202485

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Phenols, Total 0.100 0.09800 mg/L 98 90 - 110

Lab Sample ID: LCSD 860-202485/45 Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Matrix: Water

Analysis Batch: 202485

Spike LCSD LCSD %Rec RPD Added RPD Analyte Result Qualifier Unit D %Rec Limits Limit Phenols, Total 0.100 0.1008 mg/L 101 90 - 110

Lab Sample ID: MB 860-203049/32 Client Sample ID: Method Blank

Matrix: Water

Analysis Batch: 203049

мв мв

Result Qualifier RL Analyte MDL Unit Prepared Analyzed Dil Fac Phenols, Total <0.00580 0.0100 0.00580 mg/L 12/02/24 19:58

Lab Sample ID: LCS 860-203049/33 Client Sample ID: Lab Control Sample Prep Type: Total/NA

Matrix: Water

Analysis Batch: 203049

Released to Imaging: 2/14/2025 11:31:36 AM

LCS LCS %Rec Spike Analyte Added Result Qualifier Unit %Rec Limits Phenols, Total 0.100 0.1009 mg/L 101 90 - 110

Eurofins Lubbock

Prep Type: Total/NA

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1

SDG: KH247030

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: LCSD 860-203049/34

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analysis Batch: 203049

Matrix: Water

LCSD LCSD %Rec RPD Spike Analyte babbA Result Qualifier %Rec Limits RPD Limit Unit Phenols, Total 0.100 0.1020 mg/L 102 90 - 110 20

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

Lab Sample ID: MB 860-200443/24 Client Sample ID: Method Blank

Matrix: Water Prep Type: Total/NA

Analysis Batch: 200443

MB MB

Result Qualifier RL MDL Unit Dil Fac Analyte D Prepared Analyzed <0.00198 U 0.00500 0.00198 mg/L 11/15/24 18:19 Cyanide, Total

Lab Sample ID: LCS 860-200443/26 **Client Sample ID: Lab Control Sample**

Matrix: Water Prep Type: Total/NA

Analysis Batch: 200443

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits

Cyanide, Total 0.100 0.1029 mg/L 103 90 - 110

Lab Sample ID: LCSD 860-200443/27 Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Matrix: Water

Analysis Batch: 200443

Spike LCSD LCSD %Rec RPD Analyte Added Qualifier Unit %Rec RPD Limit Result Cyanide, Total 0.100 0.1100 mg/L 90 - 110

Lab Sample ID: LLCS 860-200443/25 Client Sample ID: Lab Control Sample

Matrix: Water

Analysis Batch: 200443

Spike LLCS LLCS %Rec Added Result Qualifier Analyte Unit %Rec Limits Cyanide, Total 0.00500 0.004421 J 88 50 - 150 mg/L

Lab Sample ID: MB 860-200787/24 Client Sample ID: Method Blank

Matrix: Water

Analysis Batch: 200787

MB MB

Result Qualifier RL **MDL** Unit Dil Fac Analyte D Prepared Analyzed <0.00198 0.00500 Cyanide, Total U 0.00198 mg/L 11/19/24 14:48

Lab Sample ID: LCS 860-200787/26 Client Sample ID: Lab Control Sample

Matrix: Water Analysis Batch: 200787

Spike LCS LCS %Rec

Analyte babbA Result Qualifier Unit D %Rec Limits Cyanide, Total 0.100 0.1073 mg/L 107 90 - 110

Eurofins Lubbock

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1

SDG: KH247030

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

Lab Sample ID: LCSD 860-200787/27

Client Sample ID: Lab Control Sample Dup

% Pac

Prep Type: Total/NA

Analysis Batch: 200787

Matrix: Water

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Cyanide, Total	0.100	0.09928		mg/L		99	90 - 110	8	20	

Lab Sample ID: LLCS 860-200787/25 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 200787

	Spike	LLCS	LLCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Cyanide, Total	0.00500	0.005303		mg/L		106	50 - 150	

Lab Sample ID: MB 860-201327/21 Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Water

Analysis Batch: 201327

мв мв

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.00198	U	0.00500	0.00198	mg/L			11/19/24 20:04	1

Lab Sample ID: MB 860-201327/8 Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Water

Analysis Batch: 201327

мв мв

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.00198	U	0.00500	0.00198	mg/L			11/19/24 19:27	1

Lab Sample ID: LCS 860-201327/10 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

ורפ ורפ

Matrix: Water

Analysis Batch: 201327

	Opino		LUU				701100	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Cyanide, Total	 0.100	0.1025		mg/L	_	102	90 - 110	

Snika

Lab Sample ID: LCS 860-201327/23 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 201327

	Spike	LCS	LCS				%Rec		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Cvanide. Total	0.100	0.09841		ma/L		98	90 - 110		-

Lab Sample ID: LCSD 860-201327/24 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 201327

LCSD LCSD %Rec RPD Spike Added Analyte Result Qualifier Limits RPD Limit Unit %Rec Cyanide, Total 0.100 0.09598 mg/L 96 90 - 110

Lab Sample ID: LLCS 860-201327/22 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 201327

Allalysis Batch. 201021								
	Spike	LLCS	LLCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Cyanide, Total	 0.00500	0.005738		mg/L		115	50 - 150	

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1

SDG: KH247030

Prep Type: Total/NA

Prep Type: Total/NA

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

Lab Sample ID: LLCS 860-201327/9 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 201327

	Spike	LLCS	LLCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Cyanide, Total	0.00500	0.004023	J	mg/L		80	50 - 150	

Lab Sample ID: 820-16056-1 MS Client Sample ID: TMW-17 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 201327

Sample Sample Spike MS MS %Rec Result Qualifier Result Qualifier Analyte Added Unit D %Rec Limits Cyanide, Total <0.00990 U 0.500 0.5222 mg/L 104 90 - 110

Lab Sample ID: 820-16056-1 MS Client Sample ID: TMW-17

Matrix: Water

Analysis Batch: 201327

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits 0.0129 J 0.500 Cyanide, Total 0.4844 mg/L 90 - 110

Lab Sample ID: 820-16056-1 MSD Client Sample ID: TMW-17 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 201327

MSD MSD RPD Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier %Rec RPD Limit Unit Limits 0.500 Cyanide, Total <0.00990 0.5876 N1 118 90 - 110 20 mg/L 19

Lab Sample ID: 820-16056-1 MSD Client Sample ID: TMW-17

Matrix: Water

Analysis Batch: 201327

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Cyanide, Total	0.0129	J	0.500	0.4881		mg/L		95	90 - 110	1	20	

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

Lab Sample ID: MB 860-198917/1 Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Water

Analysis Batch: 198917

-	МВ	MB							
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00	5.00	ma/L			11/11/24 08:02	

Lab Sample ID: LCS 860-198917/2 Client Sample ID: Lab Control Sample Prep Type: Total/NA

Matrix: Water

Analysis Batch: 198917

•	Spike	LCS	LCS			%Rec	
Analyte	Added	Result	Qualifier Unit	D	%Rec	Limits	
Total Dissolved Solids	1000	920.0	mg/L		92	80 - 120	

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1

SDG: KH247030

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

Lab Sample ID: LLCS 860-198917/3

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

Matrix: Water

Analysis Batch: 198917

, ,								
	Sp	ke LLCS	LLCS				%Rec	
Analyte	Ado	ed Resulf	Qualifier	Unit	D	%Rec	Limits	
Total Dissolved Solids		7.000		mg/L	_	140	50 - 150	

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-687519/1-A Client Sample ID: Method Blank

Matrix: Water

Analysis Batch: 691378

Prep Type: Total/NA

Prep Batch: 687519

-			Count	Total						
	MB	MB	Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.008620	U	0.0490	0.0490	1.00	0.0995	pCi/L	11/08/24 08:24	12/02/24 15:32	1
	MB	MB								
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.4		30 - 110					11/08/24 08:24	12/02/24 15:32	1

Total

Lab Sample ID: LCS 160-687519/2-A

Matrix: Water

Analysis Batch: 691378

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 687519

LCS LCS %Rec Spike Uncert. Analyte Added (2σ+/-) RL MDC Unit Result Qual %Rec

 $(2\sigma + / -)$

30 - 110

Limits Radium-226 0.107 pCi/L 9.58 8.593 0.927 1.00 90 75 - 125

LCS LCS

Carrier %Yield Qualifier Limits Ba Carrier 97.5 30 - 110

Result Qualifier

81.9

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-687520/1-A Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analyte

Y Carrier

Analysis Batch: 690405 Prep Batch: 687520 Count Total MB MB Uncert. Uncert.

RL

MDC Unit

- 1									· · · · · · · · · · · · · · · · · · ·		
	Radium-228	0.2564	U	0.312	0.312	1.00	0.515	pCi/L	11/08/24 08:26	11/25/24 11:49	1
		МВ	MB								
	Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
	Ba Carrier	92.4		30 - 110					11/08/24 08:26	11/25/24 11:49	1

 $(2\sigma + / -)$

Lab Sample ID: LCS 160-687520/2-A

Matrix: Water Analysis Batch: 690405 **Client Sample ID: Lab Control Sample**

Analyzed

11/25/24 11:49

Prepared

11/08/24 08:26

Prep Type: Total/NA

Dil Fac

Prep Batch: 687520

				Total				
	Spike	LCS	LCS	Uncert.				%Rec
Analyte	Added	Result	Qual	(2σ+/-)	RL	MDC Unit	%Rec	Limits
Radium-228	8.31	8.703		1.18	1.00	0.423 pCi/L	105	75 - 125

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1

SDG: KH247030

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-687520/2-A

Matrix: Water

Analysis Batch: 690405

Carrier	%Yield	Qualifier	Limits
Ba Carrier	97.5		30 - 110
Y Carrier	84.9		30 - 110

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 687520

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1

SDG: KH247030

GC/MS VOA

Analysis Batch: 198893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16056-1	TMW-17	Total/NA	Water	8260D	
MB 860-198893/9	Method Blank	Total/NA	Water	8260D	
LCS 860-198893/3	Lab Control Sample	Total/NA	Water	8260D	
LCSD 860-198893/4	Lab Control Sample Dup	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 198173

	Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
	820-16056-1	TMW-17	Total/NA	Water	3511	
	MB 860-198173/1-A	Method Blank	Total/NA	Water	3511	
	LCS 860-198173/2-A	Lab Control Sample	Total/NA	Water	3511	
L	LCSD 860-198173/3-A	Lab Control Sample Dup	Total/NA	Water	3511	

Analysis Batch: 198625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-198173/1-A	Method Blank	Total/NA	Water	8270E	198173
LCS 860-198173/2-A	Lab Control Sample	Total/NA	Water	8270E	198173
LCSD 860-198173/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	198173

Analysis Batch: 198800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16056-1	TMW-17	Total/NA	Water	8270E	198173

GC Semi VOA

Prep Batch: 198202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16056-1	TMW-17	Total/NA	Water	3511	
MB 860-198202/1-A	Method Blank	Total/NA	Water	3511	
LCS 860-198202/4-A	Lab Control Sample	Total/NA	Water	3511	
LCSD 860-198202/5-A	Lab Control Sample Dup	Total/NA	Water	3511	

Analysis Batch: 198229

Lab Sample ID 820-16056-1	Client Sample ID TMW-17	Prep Type Total/NA	Matrix Water	Method 8082A	Prep Batch 198202
MB 860-198202/1-A	Method Blank	Total/NA	Water	8082A	198202
LCS 860-198202/4-A	Lab Control Sample	Total/NA	Water	8082A	198202
LCSD 860-198202/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	198202

HPLC/IC

Analysis Batch: 198125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16056-1	TMW-17	Total/NA	Water	300.0	<u> </u>
820-16056-1 - DL	TMW-17	Total/NA	Water	300.0	
MB 860-198125/3	Method Blank	Total/NA	Water	300.0	
MB 860-198125/47	Method Blank	Total/NA	Water	300.0	
LCS 860-198125/4	Lab Control Sample	Total/NA	Water	300.0	
LCS 860-198125/48	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-198125/49	Lab Control Sample Dup	Total/NA	Water	300.0	
LCSD 860-198125/5	Lab Control Sample Dup	Total/NA	Water	300.0	

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1 SDG: KH247030

HPLC/IC (Continued)

Analysis Batch: 198125 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LLCS 860-198125/7	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 198126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
820-16056-1	TMW-17	Total/NA	Water	300.0	
MB 860-198126/3	Method Blank	Total/NA	Water	300.0	
MB 860-198126/47	Method Blank	Total/NA	Water	300.0	
LCS 860-198126/4	Lab Control Sample	Total/NA	Water	300.0	
LCS 860-198126/48	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-198126/49	Lab Control Sample Dup	Total/NA	Water	300.0	
LCSD 860-198126/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-198126/6	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 199248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16056-2 - DL	TMW-19	Total/NA	Water	300.0	
820-16056-3	TMW-24	Total/NA	Water	300.0	
MB 860-199248/13	Method Blank	Total/NA	Water	300.0	
LCS 860-199248/14	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-199248/15	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-199248/17	Lab Control Sample	Total/NA	Water	300.0	

Metals

Prep Batch: 198887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16056-1	TMW-17	Total/NA	Water	3010A	
MB 860-198887/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-198887/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-198887/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	

Analysis Batch: 199266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16056-1	TMW-17	Total/NA	Water	6020B	198887
820-16056-1	TMW-17	Total/NA	Water	6020B	198887
MB 860-198887/1-A	Method Blank	Total/NA	Water	6020B	198887
LCS 860-198887/2-A	Lab Control Sample	Total/NA	Water	6020B	198887
LCSD 860-198887/3-A	Lab Control Sample Dup	Total/NA	Water	6020B	198887

Prep Batch: 199408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
820-16056-1	TMW-17	Total/NA	Water	7470A
MB 860-199408/10-A	Method Blank	Total/NA	Water	7470A
LCS 860-199408/11-A	Lab Control Sample	Total/NA	Water	7470A
LCSD 860-199408/12-A	Lab Control Sample Dup	Total/NA	Water	7470A

Analysis Batch: 199649

Released to Imaging: 2/14/2025 11:31:36 AM

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16056-1	TMW-17	Total/NA	Water	7470A	199408
MB 860-199408/10-A	Method Blank	Total/NA	Water	7470A	199408
LCS 860-199408/11-A	Lab Control Sample	Total/NA	Water	7470A	199408

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1 SDG: KH247030

Metals (Continued)

Analysis Batch: 199649 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 860-199408/12-A	Lab Control Sample Dup	Total/NA	Water	7470A	199408

General Chemistry

Analysis Batch: 198917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16056-1	TMW-17	Total/NA	Water	SM 2540C	
820-16056-2	TMW-19	Total/NA	Water	SM 2540C	
820-16056-3	TMW-24	Total/NA	Water	SM 2540C	
MB 860-198917/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-198917/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LLCS 860-198917/3	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 200443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-200443/24	Method Blank	Total/NA	Water	Kelada 01	
LCS 860-200443/26	Lab Control Sample	Total/NA	Water	Kelada 01	
LCSD 860-200443/27	Lab Control Sample Dup	Total/NA	Water	Kelada 01	
LLCS 860-200443/25	Lab Control Sample	Total/NA	Water	Kelada 01	

Analysis Batch: 200787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-200787/24	Method Blank	Total/NA	Water	Kelada 01	
LCS 860-200787/26	Lab Control Sample	Total/NA	Water	Kelada 01	
LCSD 860-200787/27	Lab Control Sample Dup	Total/NA	Water	Kelada 01	
LLCS 860-200787/25	Lab Control Sample	Total/NA	Water	Kelada 01	

Analysis Batch: 201327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16056-1	TMW-17	Total/NA	Water	Kelada 01	
820-16056-1	TMW-17	Total/NA	Water	Kelada 01	
MB 860-201327/21	Method Blank	Total/NA	Water	Kelada 01	
MB 860-201327/8	Method Blank	Total/NA	Water	Kelada 01	
LCS 860-201327/10	Lab Control Sample	Total/NA	Water	Kelada 01	
LCS 860-201327/23	Lab Control Sample	Total/NA	Water	Kelada 01	
LCSD 860-201327/24	Lab Control Sample Dup	Total/NA	Water	Kelada 01	
LLCS 860-201327/22	Lab Control Sample	Total/NA	Water	Kelada 01	
LLCS 860-201327/9	Lab Control Sample	Total/NA	Water	Kelada 01	
820-16056-1 MS	TMW-17	Total/NA	Water	Kelada 01	
820-16056-1 MS	TMW-17	Total/NA	Water	Kelada 01	
820-16056-1 MSD	TMW-17	Total/NA	Water	Kelada 01	
820-16056-1 MSD	TMW-17	Total/NA	Water	Kelada 01	

Analysis Batch: 202173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-202173/8	Method Blank	Total/NA	Water	420.4	
LCS 860-202173/9	Lab Control Sample	Total/NA	Water	420.4	
LCSD 860-202173/10	Lab Control Sample Dup	Total/NA	Water	420.4	
LLCS 860-202173/11	Lab Control Sample	Total/NA	Water	420.4	

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1 SDG: KH247030

General Chemistry

Analysis Batch: 202485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-202485/43	Method Blank	Total/NA	Water	420.4	
LCS 860-202485/44	Lab Control Sample	Total/NA	Water	420.4	
LCSD 860-202485/45	Lab Control Sample Dup	Total/NA	Water	420.4	

Analysis Batch: 203049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
820-16056-1	TMW-17	Total/NA	Water	420.4
MB 860-203049/32	Method Blank	Total/NA	Water	420.4
LCS 860-203049/33	Lab Control Sample	Total/NA	Water	420.4
LCSD 860-203049/34	Lab Control Sample Dup	Total/NA	Water	420.4

Analysis Batch: 203640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16056-1	TMW-17	Total/NA	Water	SM 4500 H+ B	

Rad

Prep Batch: 687519

Lab Sample ID 820-16056-1	Client Sample ID TMW-17	Prep Type Total/NA	Matrix Water	Method PrecSep-21	Prep Batch
MB 160-687519/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-687519/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 687520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16056-1	TMW-17	Total/NA	Water	PrecSep_0	
MB 160-687520/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-687520/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1

SDG: KH247030

Client Sample ID: TMW-17

Date Received: 11/05/24 15:52

Date Collected: 11/05/24 08:40

Lab Sample ID: 820-16056-1

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	198893	11/11/24 08:22	NA	EET HOU
Total/NA	Prep	3511			70.4 mL	4 mL	198173	11/07/24 06:10	DR	EET HOU
Total/NA	Analysis	8270E		1	1 mL	1 mL	198800	11/10/24 21:10	LPL	EET HOU
Total/NA	Prep	3511			49 mL	5 mL	198202	11/07/24 08:43	DR	EET HOU
Total/NA	Analysis	8082A		1			198229	11/07/24 15:24	WP	EET HOU
Total/NA	Analysis	300.0		10			198125	11/06/24 17:15	A1S	EET HOU
Total/NA	Analysis	300.0		10			198126	11/06/24 17:15	A1S	EET HOU
Total/NA	Analysis	300.0	DL	100			198125	11/06/24 17:21	A1S	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	198887	11/11/24 03:42	AGR	EET HOU
Total/NA	Analysis	6020B		1			199266	11/11/24 15:10	DP	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	198887	11/11/24 03:42	AGR	EET HOU
Total/NA	Analysis	6020B		10			199266	11/11/24 15:27	DP	EET HOU
Total/NA	Prep	7470A			50 mL	50 mL	199408	11/13/24 07:34	AGR	EET HOU
Total/NA	Analysis	7470A		1			199649	11/13/24 19:48	SHZ	EET HOU
Total/NA	Analysis	420.4		20	10 mL	10 mL	203049	12/02/24 21:29	BW	EET HOU
Total/NA	Analysis	Kelada 01		5	10 mL	10 mL	201327	11/19/24 20:16	BW	EET HOU
Total/NA	Analysis	Kelada 01		1	10 mL	10 mL	201327	11/19/24 20:27	BW	EET HOU
Total/NA	Analysis	SM 2540C		1	5 mL	200 mL	198917	11/11/24 08:02	TR	EET HOU
Total/NA	Analysis	SM 4500 H+ B		1			203640	12/05/24 14:15	MR	EET HOU
Total/NA	Prep	PrecSep-21			755.22 mL	1.0 g	687519	11/08/24 08:24	BCE	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	691382	12/02/24 15:31	FLC	EET SL
Total/NA	Prep	PrecSep_0			755.22 mL	1.0 g	687520	11/08/24 08:26	BCE	EET SL
Total/NA	Analysis	904.0		1			690405	11/25/24 11:51	SCB	EET SL

Client Sample ID: TMW-19

Date Collected: 11/05/24 10:37

Date Received: 11/05/24 15:52

Lab Sample ID: 820-16056-2

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0	DL	10			199248	11/13/24 02:14	HN	EET HOU
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	198917	11/11/24 08:02	TR	EET HOU

Client Sample ID: TMW-24

Date Collected: 11/05/24 11:59

Date Received: 11/05/24 15:52

Lab	Sample	ID:	820-16056-3
			B.B Andrew ABI - Anne

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			199248	11/13/24 02:27	HN	EET HOU
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	198917	11/11/24 08:02	TR	EET HOU

Laboratory References:

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

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

SDG: KH247030

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists

Job ID: 820-16056-1 Project/Site: Apache EBDU

Laboratory: Eurofins Houston

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

Authority	Progr	am	Identification Number	Expiration Date
Texas	NELA	Р	T104704215	06-30-25
• .	are included in this report, but ses not offer certification.	ut the laboratory is not certif	ied by the governing authority. This lis	t may include analyte
Analysis Method	Pren Method	Matrix	Δnalvte	
Analysis Method 420.4	Prep Method	Matrix Water	Analyte Phenols, Total	
	Prep Method 3010A			
420.4	·	Water	Phenols, Total	

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
MI - RadChem Recognition	State	9005	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	12-31-24
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25

 $^{^{\}star} \ \text{Accreditation/Certification renewal pending - accreditation/certification considered valid}.$

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1 SDG: KH247030

Laboratory: Eurofins St. Louis (Continued)

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

Authority	Program	Identification Number	Expiration Date
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

Method Summary

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1 SDG: KH247030

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET HOU
8270E	Semivolatile Organic Compounds (GC-MS/MS)	SW846	EET HOU
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET HOU
300.0	Anions, Ion Chromatography	EPA	EET HOU
6020B	Metals (ICP/MS)	SW846	EET HOU
7470A	Mercury (CVAA)	SW846	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
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
3010A	Preparation, Total Metals	SW846	EET HOU
3511	Microextraction of Organic Compounds	SW846	EET HOU
5030C	Purge and Trap	SW846	EET HOU
7470A	Preparation, Mercury	SW846	EET HOU
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

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 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: 820-16056-1

SDG: KH247030

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
820-16056-1	TMW-17	Water	11/05/24 08:40	11/05/24 15:52
820-16056-2	TMW-19	Water	11/05/24 10:37	11/05/24 15:52
820-16056-3	TMW-24	Water	11/05/24 11:59	11/05/24 15:52

Received by OCD: 1/23/2025 1:35:15 PM

Loc: 820 16056

CHAIN O

[
820-16056	Chain	of	Custody

Addr										ANAL	1313						
	ess:	6701 A	Aberde	een						REQU	ESTED					DUE DATE:	
ifice Location Lubbock Phon Cont.		Bo(xas 79		14									-	TEMP OF COOLER WHEN RECEIVED	.2.9 3-1 1_of_1
oject Manager Joseph Avestier												ards					
	oler's Sign	nature								Solids (TDS)	od 300)	h Standards					
oject Number KH247030 Project Name Apache EBDU	7				pe of	Contain	pa			ved Solic	A Meth	an Healt					
Date Time & g & Identifying Marks of Sample(s)		Start Depth (FT)	End Depth (FT)	250 ml Poly	1L Poly	250 ml Amber	40 ml VOA unpreserved	40 ml VOA preserved	60 ml VOA	Total Dissolved	Chloride (EPA Method 300)	NMAC Human Health				Lal	Sample ID
11/5/24 0840 X TMW-17				3	4	41	4	3	2	X	X	x					
11/5/24 1037 × TMW-19				41	1					X	×						
11/5/24 1159 X TMW-24				41	1					×	×						
,																	
			1-1	100													
NAROUND TIME Normal 72-Hour Rush 24-Ho	ur Rush	g II	TREP L	abora	itory	Review	Checkli	st					Yes		10		
Date: Time: 1552 Received 11/5/24 1552	by (Signature)	A A	_			Date:				Time:		Bill To	: Terra	con			
dushed by (signature) Date: Time: Received	by (Signature)	2/	- 1	1A		Date:	-1-	,		Time:							
	Mar	94	luk			11/3	124		l,	55	2						
quished by (Signature) Date: Time: Received	by (signature)					Date:				Time:			result		1.01		
quished by (Signature) Date: Time: Received	i by (Signature)					Date:				Time:					ck@terr terraco	n com	
																racon.com	
IX WW-Wastewater W-Water S-Soil L-Liquid A-Air Bag		C - Charcoal	tube	s	SL - Sludge												
VOA - 40 ml vial A/G - Amber Glass 1L 250 ml = Glass wide mouth P/O - Plasti	tic or other <u>Wipe</u>																
Lubbock Office 58	47 50th	Street	t = l	_ubb	ock.	Texa	s 7942	24 # 8	06-3	300-0	140						
Re	esponsi	ve m	Resc	ource	eful	■ Re	liable										

Eurofins Lubbock

6701 Aberdeen Ave. Suite 8 Lubbock, TX 79424 Phone: 806-794-1296

Chain of Custody Record



0.0				
1	eu	roi	1	ns

Environment Testing

1 Hone: 600-794-1296												S 1.								
Client Information (Sub Contract Lab)	Sampler: N/A				PM: amer,	Jes	sica					Car N/	mer Trac	king No	o(s):			COC No: 820-10078.1		
Client Contact Shipping/Receiving	Phone: N/A			E-M Jes		Kran	ner@	get.eur	rofinsi	us.con	1	Sta	te of Ori	gin:			\dashv	Page: Page 1 of 1		
Company TestAmerica Laboratories, Inc.					Acc		tions	Require									\dashv	Job#:		
Address 13715 Rider Trail North,	Due Date Requeste	ed:			INE	LAP	- 16	exas									_	820-16056-1 Preservation Code	00:	
City:	11/12/2024 TAT Requested (da	ave):			\perp				P	Analy	sis R	eque	sted					-	es:	
Earth City State, Zip:	TAT Requested (us	N/A	A				ı													
MO, 63045																				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO#: N/A																			
Email	WO #:				- 2		at Lis	List												
N/A Project Name:	N/A				اة	2	Targ	arget									gn			
NMAC HUman Health Standard	Project #: 88002338				ع	38 or	dard	ard T									containers			
Site: N/A	SSOW#. N/A				amp	20 (3	1 Stan	Stand										Other:		
		01	Sample Type	Matrix (W=water, S=solid,	Filtered S	orm MS/M	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List									Total Number of	N/A		
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	(C=comp, G=grab)	O=waste/oil, 3T≃Tissue, A=Air	몽	Perform	903.0	904.0									otal	Special In	structions/N	1-4
	\rightarrow	$>\!\!<$	Preservat	ion Code:	X	X						90 00					Ż	opecial ills	structions/iv	ote:
TMW-17 (820-16056-1)	11/5/24	08:40 Central	G	Water	П		х	х									2			
					П		\neg		1			\top		+						
					$\dagger \dagger$	+	\neg		+	\vdash		\dashv	+	+	+-					
					+	+	+		+	+	+	+	+	+		\vdash				
					₩	+	+	_	+	+	4		\perp	\dashv						
					\coprod	1	_													
					П															
					П															
		-			Ħ	\top	\top		+			+	+-+	+	+					
					††	+	\dashv		+	+-	+	+		+	+	-	\dashv			
Note: Since laboratory accreditations are subject to change, Eurofins Environable to change, Eurofins Environable to the State of Origin liss aboratory does not currently maintain accreditation in the State of Origin liss	onment Testing South Centra ted above for analysis/tests/r	al, LLC places	the ownership on	of method, and	alyte &	accre	editati	ion comp	pliance	upon o	ur subco	ontract li	aborator	ies. Th	is sample	shipm	nent is	s forwarded under cha	ain-of-custody.	If the
	th Central, LLC attention imr	mediately. If a	Il requested acc	creditations ar			uato,	, return u	ile sigil	eu Cha	ii oi Cu	stody at	testing to	o said ci	ompliance	e to Eu	arotin	is Environment Testing	g South Central,	nges to I, LLC.
Possible Hazard Identification						Sam	ple I	Dispos	al (A	fee n	nay be	asse	ssed i	samı	ples are	e reta	ine	d longer than 1 r	month)	
Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify)	Primary Delivera	ble Pank: 3			4			turn To				J Dispe	osal By	Lab		<u> </u>	rchi	ve For	Months	
						spec	iai ir	nstructi	ons/C	2C Re	quirem	ents:								
Empty Kit Reinquished by:		Date:			Tim								Method	d of Ship	pment:					
	Datemme: 24	[17:	WW C	ompany		R	eceiv	ed by:	A.		H	1		Di	te/Time	5 N	101	1 0 7 202	Company	040
Relinquished by	Date/Time:		c	ompany		R	eceiv	ed by:	Vagin	ac f	CHANG Y	4		Da	ate/Time:	۱۱۱ ر	1 400		Company	747
Relinquished by:	Date/Time:			ompany		R	eceiv	ed by:	neye	enne	Forre	est			ate/Time					
Custody Sools Intoot: Custody Cool No.				. ,										∪a	ite/IIme				Company	
Custody Seal No.: Δ Yes Δ No						C	ooler	Tempera	ature(s	°C and	Other I	Remark	S:							
						_ 1														









EUROTINS LUBBOCK	ì	ı											λ	À							1
Lubbock, TX 79424	0	hain	Chain of Custody Record	tody R	(ecc	ă						#771	ЫX							**	ళ్ళి Eurofins En connect lest og
Client Information (Sub Contract Lab)	Sampler N/A			Lab PM: Kramer	Lab PM: Kramer Jessica	Siz	"	- 1	١		- 1		ΣΩ A	Carrier Tracking No(s): N/A	ckin	NO.	*1	- }		စ္ထ ႙	COC No: 820-10077 1
	Phone: N/A			E-Mail: Jessic	E-Mail: Jessica.Kramer@et.eurofinsus.com	amer	© et	euro	Insu	8	3		State of Texas	State of Origin: Texas	g.					ू हो	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr					Accreditati NELAP		Texas	uired	See r	ote):										ळ ह	Job #: 820-16056-1
Address: 4145 Greenbriar Dr	Due Date Requested: 11/11/2024	9				ı		ļ	. ▶	Analysis	Sis	Requested	ine	ře	_]	ı]		<u>.</u>	Preservation Codes:
City: Starfford	TAT Requested (days):	ys): N/A				ate	\neg	\neg		ヿ゙	7	\neg		\neg		一	\dashv		comple	an adoption of	
State, 70: TX, 77477	1					le, \$u!f									lrocart				en en en	abatir (capana)	
Phone: 281-240-4200(Tel)	NA #					luorid	N							***	ic Hy	~			S S S S S S S S S S S S S S S S S S S	ble de trade	
Emai: N/A	WO#				01-02/03/03/03	(0)200,000	rile as		lure		9) + U				Aroma					(h-2	
Project Name:	Project #:				AV-886		d Nit		pera		als (1	ury		Bs	clic /				ilner	0000740	
NWAC numan nearth standard	88000				DOM:	200	e ar		Ten		Met	Nerc	st	d PC	dycy				on!	ignic.	Ther.
N/A	N/A				wserze.		Nitrat		i and		MOD)	Prep N	uii Lis	ndard	11 Po				r of co	2.3000000	WA
			Sample Type	Matrix (www.ater.	Fillered rm MS/)	RGFM_2	RGFMS/	Calcd	00_H+/ pl	a_01	/3010A (I	/7470A_I	/5030C P	/3511 Sta	_QQQ/35				Numbe		
Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	<u> </u>	Omerastefoli, BT=Tissue, AnAir	WWW.ZMAS	1658/19.2/F	300_C	2540C	SM451	Kelad	6020B	7470A	8260D	8082A	8270E (PAHs	420.4			Total		Special Instructions/Note:
		X	100	Preservation Code:	$\stackrel{\times}{\sim}$			4			194 <u>3</u> 245				100		4000 CI		V		
TMW-17 (820-16056-1)	11/5/24	08:40 Central	ဓ	Water	_	×	×	×	×	×	×	×	×	×	×	×			5	S 0	
TMW-19 (820-16056-2)	11/5/24	10:37 Central	G	Water		×		×										_	N		
TMW-24 (820-16056-3)	11/5/24	11,59 Central	၈	Water		×		×								\neg			N		
																		\vdash	gron.	الدسيدية	
																				3600 MARS	
						_														terresis G	
																		\vdash			
					1			\top		_						_		-	_	<u> </u>	
Note: Since laboratory accreditations are subject to change. Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subtobratory does not currently maintain accreditation in the State of Origin listed above for analysis/hests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment	ent Testing South Centra above for analysis/tests/r	natrix being a	the ownership on alyzed, the sa	of method, and mples must be	alyte & a shipped	ccredit	ation o	Euro	iance fins Er	nonivr	nent.	bcont estin	act la Sou	borat th Ce	ntrai,	[발	Sam)	tory o	rothe	ntis.↑	ubcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the Testing South Central, LLC laboratory or other instructions will be provided. Any changes to
accreditation status should be brought to Eurotins Environment Lesting South	Sentral, LLC attention into	nediately, if a	all requested ac	Creditations at	e curren	100	6. reg	5	agis a	8	0.	l list	oy an	as as	, 6 X	8	i di	į.	9		S Environment Lesung South Central, LLC
Possible Hazard Identification Unconfirmed						Return To Client	Return To Client	n To	Clie	n ree	may		Disposal By Lab	Sal L	37 E	ab de	89		Arc	hive	Disposal By Lab Archive For Months
Deliverable Requested: 1 II, III IV Other (specify)	Primary Deliverable Rank:	ble Rank: 2	10		S	Special Instructions/QC Requi	instr	rgi.	ms/C	Õ R		rements:	ij			ı					
Empt Kir Relinquished by:		Date:			Time:			1	1	١	ı	ł	1	Method	Q Q	of Shipment	ment	ŀ	١	1	
Beindusthed by	2 2 2	7	8	Company	l	찒	Received by:	×			- (ŀ	Ì	ſ	-	Date	Date/Time:	ö		- 1	Company
Reliquished by:	Date/Time:			Company		77	Received by:	8			l	- {		- 1		- Dat	Date/Time:		-	1	Company
Relinquished by:	Date/Time:			Company		Rec	Received by:	×		1	ĺ					Date/Time:	_5		3		U431 Company
Custody Seals Intact: Custody Seal No.						Coo	Cooler Temperature(s) °C and Other Remarks:	\ Per	s)auti)°C a	of Of	er Re	marks	۳.		39471	3	2.7	5	۴	
1						ľ	9	ľ			ſ	١	- [ſ		ļ	ſ	- }		- [Ver: 10/10/2024

telinquished by:

Date/Time:

Company Company

Received by:

Cooler Temperature(s) °C and Other Remarks:

3957

Ver 10/10/2024

Times Du

24.20

Custody Seals Intact:

Custody Seal No.

Deliverable Requested: I, II, III, IV Other (specify)

Primary Deliverable Rank: 2

9,5

1 me:

Method of Shipment

Received by:

Received by:

Special Instructions/QC Requirements:

nquished by

6701 Aberdeen Ave. Suite 8

EUronns Lubbock

Client Information
Client Contact Phone: 806-794-1296 Lubbock, TX 79424

hipping/Receiving

567

13141516

Environment Testing

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/tests/matrix being analyzed, the samples must be shipped back to the 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. Sample Identification - Client ID (Lab ID) Eurofins Environment Testing South Centre Possible Hazard Identification (Sub Contract Lab Sample N/A Phone: Project #: 82000181 NO NO NO × TAT Requested (days): Due Date Requested: 11/12/2024 11/5/24 Chain of Custody Record Sample Time Central Š (C=Comp, Sample Type ၈ Matrix Water Lab PM: Teel, Brianna E-Mail: Brianna, Teel@et.eurofinsus.com
Accreditations Required (See note) NELAP Texas Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Mon Perform MS/MSD (Yes or No) × 25400/ TSS by SM2540D × SM4500_H+/ pH and Temperature SM5210B_Calc/BOD_Prep BOD Analysis Requested ₹ State of Origin: Total Number of containers w seurofins COC No: 820-10074.1 Page: Page 1 of 1 820-16028-1 Special Instructions/Note:

Project Name: 1030 Pecan

1030 Pecan (820-16028-1)

State, Zip: TX, 77477 Stafford

1145 Greenbriar Dr

281-240-4200(Tel)

Company

Months

Client: Terracon Consulting Eng & Scientists

Job Number: 820-16056-1 SDG Number: KH247030

Login Number: 16056 List Source: Eurofins Lubbock

List Number: 1

Creator: Guillen, Kyrstin

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	

4

12/5/2024

Client: Terracon Consulting Eng & Scientists

Job Number: 820-16056-1

SDG Number: KH247030

Login Number: 16056 **List Source: Eurofins Houston** List Number: 2

List Creation: 11/07/24 08:01 AM

Creator: Torrez, Lisandra

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
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	True	

<6mm (1/4").

Client: Terracon Consulting Eng & Scientists

Job Number: 820-16056-1

SDG Number: KH247030

List Source: Eurofins St. Louis

List Creation: 11/07/24 12:34 PM

List Number: 3 Creator: Forrest, Cheyenne L

Login Number: 16056

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	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 <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

N/A

Released to Imaging: 2/14/2025 11:31:36 AM

Residual Chlorine Checked.

Client: Terracon Consulting Eng & Scientists

Job ID: 820-16056-1 Project/Site: Apache EBDU SDG: KH247030

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water Prep Type: Total/NA

Prep Method: 5030C-Purge and Trap

ıment: A292	Detector: MSD/0	Column: DB-624
-------------	-----------------	----------------

Instrument: A292		ector: MSD/						Column: DB-6
Analyte	Spike Added	Rosult	Qualifier	Unit	RL	MDL	Analysis Date	Analysis Batch
Benzene	0.000900	0.000940	J	mg/L	0.00100	0.000460	09/13/2024	860-187060
Chlorobenzene	0.00100	0.000937	J	mg/L	0.00100	0.000455	09/13/2024	860-187060
Chloroethane	0.00900	0.00916	J	mg/L	0.0100	0.00198	09/13/2024	860-187060
Chloroform	0.00100	0.000988	J	mg/L	0.00100	0.000464	09/13/2024	860-187060
Chloromethane	0.00900	0.00750	J	mg/L	0.0100	0.00204	09/13/2024	860-187060
4-Chlorotoluene	0.00100	0.000898	J	mg/L	0.00100	0.000386	09/13/2024	860-187060
cis-1,2-Dichloroethene	0.000900	0.000991	J	mg/L	0.00100	0.000360	09/13/2024	860-187060
cis-1,3-Dichloropropene	0.00600	0.000331	J	mg/L	0.00500	0.000437	09/13/2024	860-187060
Dibromochloromethane	0.00400	0.00452	J	mg/L	0.00500	0.000547	09/13/2024	860-187060
1,2-Dibromo-3-Chloropropane	0.00400	0.00339	J		0.00500	0.000547	09/13/2024	860-187060
·				mg/L			09/13/2024	
1,2-Dibromoethane	0.00400	0.00356 0.000931	J	mg/L	0.00500	0.000999	09/13/2024	860-187060
Bromobenzene	0.00100			mg/L	0.00100	0.000486	09/13/2024	860-187060
1,2-Dichlorobenzene	0.00100	0.00101		mg/L	0.00100	0.000429		860-187060
1,3-Dichlorobenzene	0.00100	0.000939	J	mg/L	0.00100	0.000413	09/13/2024 09/13/2024	860-187060
1,4-Dichlorobenzene	0.00100	0.00101		mg/L	0.00100	0.000449		860-187060
Dichlorodifluoromethane	0.00100	<0.00100	U	mg/L	0.00100	0.000785	09/13/2024	860-187060
1,1-Dichloroethane	0.000900	0.000901	J	mg/L	0.00100	0.000635	09/13/2024	860-187060
1,2-Dichloroethane	0.00100	0.000975	J	mg/L	0.00100	0.000372	09/13/2024	860-187060
1,1-Dichloroethene	0.00120	0.000948	J	mg/L	0.00100	0.000738	09/13/2024	860-187060
1,2-Dichloropropane	0.00400	0.00322	J	mg/L	0.00500	0.000556	09/13/2024	860-187060
Bromochloromethane	0.00100	0.000941	J	mg/L	0.00100	0.000577	09/13/2024	860-187060
1,3-Dichloropropane	0.00400	0.00351	J	mg/L	0.00500	0.000514	09/13/2024	860-187060
2,2-Dichloropropane	0.00600	0.00417	J	mg/L	0.00500	0.000679	09/13/2024	860-187060
1,1-Dichloropropene	0.00600	0.00461	J	mg/L	0.00500	0.000624	09/13/2024	860-187060
Ethylbenzene	0.00100	0.000969	J	mg/L	0.00100	0.000385	09/13/2024	860-187060
Hexachlorobutadiene	0.00600	0.00459	J	mg/L	0.00500	0.000627	09/13/2024	860-187060
Isopropylbenzene	0.00100	0.000908	J	mg/L	0.00100	0.000592	09/13/2024	860-187060
Methylene Chloride	0.00600	0.00446	J	mg/L	0.00500	0.00173	09/13/2024	860-187060
m,p-Xylenes	0.00900	0.00782	J	mg/L	0.0100	0.00124	09/13/2024	860-187060
MTBE	0.00400	0.00338	J	mg/L	0.00500	0.00139	09/13/2024	860-187060
Naphthalene	0.00900	0.00801	J	mg/L	0.0100	0.00135	09/13/2024	860-187060
Bromodichloromethane	0.000900	0.000999	J	mg/L	0.00100	0.000552	09/13/2024	860-187060
n-Butylbenzene	0.00100	0.000938	J	mg/L	0.00100	0.000510	09/13/2024	860-187060
N-Propylbenzene	0.00100	0.000962	J	mg/L	0.00100	0.000429	09/13/2024	860-187060
o-Xylene	0.000900	0.000994	J	mg/L	0.00100	0.000502	09/13/2024	860-187060
p-Cymene (p-Isopropyltoluene)	0.00100	0.000926	J	mg/L	0.00100	0.000676	09/13/2024	860-187060
sec-Butylbenzene	0.00100	0.000904	J	mg/L	0.00100	0.000468	09/13/2024	860-187060
Styrene	0.00100	0.000900	J	mg/L	0.00100	0.000619	09/13/2024	860-187060
tert-Butylbenzene	0.00100	0.000899	J	mg/L	0.00100	0.000442	09/13/2024	860-187060
1,1,1,2-Tetrachloroethane	0.00100	0.000927	J	mg/L	0.00100	0.000644	09/13/2024	860-187060
1,1,2,2-Tetrachloroethane	0.000900	0.000980	J	mg/L	0.00100	0.000470	09/13/2024	860-187060
Tetrachloroethene	0.000900	0.00106		mg/L	0.00100	0.000655	09/13/2024	860-187060
Toluene	0.000900	0.00107		mg/L	0.00100	0.000475	09/13/2024	860-187060
trans-1,2-Dichloroethene	0.000900	0.000845	J	mg/L	0.00100	0.000368	09/13/2024	860-187060
trans-1,3-Dichloropropene	0.00400	0.00337	J	mg/L	0.00500	0.00127	09/13/2024	860-187060
1,2,3-Trichlorobenzene	0.00400	0.00327	J	mg/L	0.00500	0.00177	09/13/2024	860-187060
1,2,4-Trichlorobenzene	0.00600	0.00327	J	mg/L	0.00500	0.00177	09/13/2024	860-187060
1,1,1-Trichloroethane	0.00600	0.00487	J	mg/L	0.00500	0.00173	09/13/2024	860-187060

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Instrument: A292

Job ID: 820-16056-1 SDG: KH247030

Prep Type: Total/NA

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Matrix: Water Prep Method: 5030C-Purge and Trap

Detector: MSD/0 Column: DB-624

	Spike							
Analyte	Added	Result	Qualifier	Unit	RL	MDL	Analysis Date	Analysis Batch
1,1,2-Trichloroethane	0.000900	0.000999	J	mg/L	0.00100	0.000411	09/13/2024	860-187060
Trichloroethene	0.00400	0.00336	J	mg/L	0.00500	0.00150	09/13/2024	860-187060
Trichlorofluoromethane	0.00120	0.000803	J	mg/L	0.00100	0.000560	09/13/2024	860-187060
Bromoform	0.00400	0.00369	J	mg/L	0.00500	0.000633	09/13/2024	860-187060
1,2,3-Trichloropropane	0.00100	0.000873	J	mg/L	0.00100	0.000470	09/13/2024	860-187060
1,2,4-Trimethylbenzene	0.00100	0.000957	J	mg/L	0.00100	0.000417	09/13/2024	860-187060
1,3,5-Trimethylbenzene	0.00100	0.000992	J	mg/L	0.00100	0.000411	09/13/2024	860-187060
Vinyl chloride	0.00120	0.000580	J	mg/L	0.00200	0.000428	09/13/2024	860-187060
Xylenes, Total	0.00800	0.00661	J	mg/L	0.0100	0.00124	09/13/2024	860-187060
Bromomethane	0.00400	0.00369	J	mg/L	0.00500	0.00142	09/13/2024	860-187060
2-Butanone	0.0450	0.0383	J	mg/L	0.0500	0.00828	09/13/2024	860-187060
Carbon tetrachloride	0.00600	0.00459	J	mg/L	0.00500	0.000896	09/13/2024	860-187060
				· ·				

Method: 8270E - Semivolatile Organic Compounds (GC-MS/MS)

Prep Type: Total/NA **Matrix: Water**

Prep Method: 3511-Microextraction of Organic Compounds Instrument: A379 **Detector: MSD/0** Column: Rxi 5Sil MS

ilistrument. As73	Detet	JUI. WISDI	U			Column. Kxi 5511 Wis			
	Spike								
Analyte	Added	Result	Qualifier	Unit	RL	MDL	Analysis Date	Analysis Batch	
1-Methylnaphthalene	0.357	0.522	J	ug/L	0.571	0.0626	09/30/2024	860-190404	
Benzo[g,h,i]perylene	0.143	0.237	J	ug/L	0.571	0.0345	09/11/2024	860-186384	
Benzo[k]fluoranthene	0.143	0.290	J	ug/L	0.571	0.0473	09/11/2024	860-186384	
Chrysene	0.143	0.302	J	ug/L	0.571	0.0815	09/11/2024	860-186384	
Dibenz(a,h)anthracene	0.0571	0.113	J	ug/L	0.114	0.0509	09/11/2024	860-186384	
Fluoranthene	0.143	0.289	J	ug/L	0.571	0.0883	09/11/2024	860-186384	
Fluorene	0.143	0.257	J	ug/L	0.571	0.0948	09/11/2024	860-186384	
Indeno[1,2,3-cd]pyrene	0.143	0.250	J	ug/L	0.571	0.100	09/11/2024	860-186384	
Naphthalene	0.357	0.562	J	ug/L	0.571	0.0944	09/30/2024	860-190404	
Phenanthrene	0.143	0.264	J	ug/L	0.571	0.134	09/11/2024	860-186384	
Pyrene	0.143	0.236	J	ug/L	0.571	0.0849	09/11/2024	860-186384	
2-Methylnaphthalene	0.357	0.485	J	ug/L	0.571	0.0603	09/30/2024	860-190404	
Acenaphthene	0.357	0.570	J	ug/L	0.571	0.107	09/30/2024	860-190404	
Acenaphthylene	0.143	0.288	J	ug/L	0.571	0.0996	09/11/2024	860-186384	
Anthracene	0.143	0.233	J	ug/L	0.571	0.0938	09/11/2024	860-186384	
Benzo[a]pyrene	0.0286	0.0527	J	ug/L	0.0571	0.0300	09/11/2024	860-186384	
Benzo[b]fluoranthene	0.143	0.303	J	ug/L	0.571	0.0664	09/11/2024	860-186384	

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water Prep Type: Total/NA

Prep Method: 3511-Microextraction of Organic Compounds Detector: ECD/0 Instrument: A328 Column: RTX-CLP1

Spike

Analyte	Added	Result	Qualifier	Unit	RL	MDL	Analysis Date	Analysis Batch
PCB-1016	0.000260	0.000191	J	mg/L	0.000260	0.0000477	05/24/2024	860-162189
PCB-1260	0.000250	0.000192	J	mg/L	0.000250	0.0000605	09/27/2024	860-189980

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1

SDG: KH247030

Method: 300.0 - Anions, Ion Chromatography

Matrix: Water Prep Type: Total/NA

Prep Method: N/A

Instrument: A317 Detector: IC/0 Column: AS-18

Spike

Added MDL Analyte Result Qualifier Unit RL**Analysis Date Analysis Batch** 09/13/2024 Chloride 0.250 0.338 mg/L 0.500 0.250 860-186927

Matrix: Water Prep Type: Total/NA

Prep Method: N/A

Instrument: a401 **Detector: IC/0** Column: AS-18

Spike

Added Result Qualifier RL MDL Analyte Unit **Analysis Date Analysis Batch** 09/26/2024 Nitrate as N 0.500 0.0985 mg/L 0.100 0.0391 860-189714 09/26/2024 Nitrite as N 0.500 0.0729 mg/L 0.100 0.0699 860-189714

Method: 6020B - Metals (ICP/MS)

Prep Type: Total/NA **Matrix: Water**

Prep Method: 3010A-Preparation, Total Metals

Instrument: A311 Detector: MSD/0

	Spike							
Analyte	Added	Result	Qualifier	Unit	RL	MDL	Analysis Date	Analysis Batch
Aluminum	0.0100	0.011	J	mg/L	0.020	0.0055	10/17/2024	860-197049
Copper	0.00200	0.0020	J	mg/L	0.0040	0.0010	10/17/2024	860-197049
Iron	0.0100	0.010	J	mg/L	0.020	0.0045	10/17/2024	860-197049
Lead	0.00100	0.00098	J	mg/L	0.0020	0.00037	10/17/2024	860-197049
Manganese	0.00100	0.0010	J	mg/L	0.0020	0.00076	10/17/2024	860-197049
Molybdenum	0.00100	0.0010	J	mg/L	0.0020	0.00026	10/17/2024	860-197049
Nickel	0.00100	0.00095	J	mg/L	0.0020	0.00053	10/17/2024	860-197049
Selenium	0.00100	0.0015	J	mg/L	0.0020	0.00059	10/17/2024	860-197049
Silver	0.00100	0.00094	J	mg/L	0.0020	0.00039	10/17/2024	860-197049
Thallium	0.00100	0.00097	J	mg/L	0.0020	0.00019	10/17/2024	860-197049
Uranium	0.000500	0.00047	J	mg/L	0.0010	0.00021	10/17/2024	860-197049
Antimony	0.00100	0.00094	J	mg/L	0.0020	0.00075	10/17/2024	860-197049
Zinc	0.00360	0.0037	J	mg/L	0.0040	0.0027	10/22/2024	860-197051
Arsenic	0.00200	0.0020	J	mg/L	0.0040	0.00069	10/17/2024	860-197049
Barium	0.00200	0.0021	J	mg/L	0.0040	0.0013	10/17/2024	860-197049
Beryllium	0.00100	0.00096	J	mg/L	0.0020	0.00027	10/17/2024	860-197049
Boron	0.00500	0.0046	J	mg/L	0.010	0.0040	10/17/2024	860-197049
Cadmium	0.00100	0.0010	J	mg/L	0.0020	0.00024	10/17/2024	860-197049
Chromium	0.00200	0.0020	J	mg/L	0.0040	0.00056	10/17/2024	860-197049
Cobalt	0.00100	0.00099	J	mg/L	0.0020	0.00036	10/17/2024	860-197049

Method: 7470A - Mercury (CVAA)

Matrix: Water Prep Type: Total/NA

Prep Method: 7470A-Preparation, Mercury

Instrument: A336 Detector: AA/0

Spike

Added **Analysis Date** Analyte Result Qualifier Unit RL MDL **Analysis Batch** 0.000130 0.000114 0.000200 0.0000706 08/07/2024 860-180223 Mercury mg/L

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16056-1

SDG: KH247030

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

Matrix: Water Prep Type: Total/NA

Prep Method: N/A

Instrument: A301 Detector: UV/0

Spike

Analyte	Added	Result	Qualifier	Unit	F	Analysis Date	Analysis Batch
Cyanide, Total	0.00250	0.00240	J	mg/L	0.0050	09/30/2024	860-190507

Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for Job No. 820-16056-1 and consists of:

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

- ☑ R1- Field chain-of-custody documentation;
- ☑ R2 Sample identification cross-reference;
- ☑ R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors.
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified coumpounds (TICs).
- ☑ R4 Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- ☑ R5 Test reports/summary forms for blank samples;
- ☑ R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- ☑ R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- ☑ R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- ☑ R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix;
- ☑ R10 Other problems or anomalies.
- Exception Report for every "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

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

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

Name (Printed)	Signature	Official Title (Printed)	Date

3

4

7

0

11

12

14

II e

Laboratory Data Package Cover Page - Page 2 of 4

	atory Na		LRC Date: 12/05/20								
	t Name		Laboratory Job Numb	er: 820-	16056-1						
	wer Nar										
# 1	A ²	Description		Yes	No	NA ³	NR⁴	ER#			
R1	OI	Chain-of-custody (C-O-C)									
		Did samples meet the laboratory's standard conditions of sample acce	eptability upon	✓							
		receipt? Were all departures from standard conditions described in an exception	on report?	✓							
R2	OI	Sample and quality control (QC) identification	ли тероп:	•							
K2	Oi	Are all field sample ID numbers cross-referenced to the laboratory ID	numhers?	✓							
		Are all laboratory ID numbers cross-referenced to the corresponding C		· ·							
R3	OI	Test reports	20 44141								
		Were all samples prepared and analyzed within holding times?		✓							
		Other than those results < MQL, were all other raw values bracketed by	ov calibration	✓							
		standards?	,								
		Were calculations checked by a peer or supervisor?		✓							
		Were all analyte identifications checked by a peer or supervisor?		✓							
		Were sample detection limits reported for all analytes not detected?		✓							
		Were all results for soil and sediment samples reported on a dry weigh				√					
		Were % moisture (or solids) reported for all soil and sediment samples				✓ ✓					
		Were bulk soils/solids samples for volatile analysis extracted with met SW846 Method 5035?	hanol per			•					
		If required for the project, are TICs reported?				✓					
R4	0	Surrogate recovery data	or the project, are TICs reported?								
		Were surrogates added prior to extraction?		✓							
		Were surrogate percent recoveries in all samples within the laboratory	QC limits?	✓							
R5	OI	Test reports/summary forms for blank samples									
		Were appropriate type(s) of blanks analyzed?		√							
		Were blanks analyzed at the appropriate frequency?		✓							
		Were method blanks taken through the entire analytical process, inclu	ıding preparation	✓							
		and, if applicable, cleanup procedures?									
		Were blank concentrations < MQL?		✓							
R6	OI	Laboratory control samples (LCS):									
		Were all COCs included in the LCS?		✓ ✓							
		Was each LCS taken through the entire analytical procedure, includin	g prep and	•							
		cleanup steps? Were LCSs analyzed at the required frequency?		✓							
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC lim	nits?	√							
		Does the detectability check sample data document the laboratory's co		✓							
		detect the COCs at the MDL used to calculate the SDLs?	,								
		Was the LCSD RPD within QC limits?		✓							
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) d	ata								
		Were the project/method specified analytes included in the MS and M	SD?	✓							
		Were MS/MSD analyzed at the appropriate frequency?		✓							
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits	s? 		✓			1			
D 0		Were MS/MSD RPDs within laboratory QC limits?		√							
R8	OI	Analytical duplicate data		✓							
		Were appropriate analytical duplicates analyzed for each matrix? Were analytical duplicates analyzed at the appropriate frequency?		✓							
		Were RPDs or relative standard deviations within the laboratory QC lin	mits?	✓							
R9	OI	Method quantitation limits (MQLs):	TINO:								
113	01	Are the MQLs for each method analyte included in the laboratory data	package?	✓							
		Do the MQLs correspond to the concentration of the lowest non-zero of	• •		✓			2			
		standard?									
		Are unadjusted MQLs and DCSs included in the laboratory data packa	age?	✓		1	1				
R10	OI	Other problems/anomalies									
	1	Are all known problems/anomalies/special conditions noted in this LR	C and ER?	✓							
		Was applicable and available technology used to lower the SDL to mir	nimize the matrix		✓			3			
		interference effects on the sample results?									
		Is the laboratory NELAC-accredited under the Texas Laboratory Accre	editation Program	✓							
		for the analytes, matrices and methods associated with this laboratory	data package?								

1

2

3

5

8

10

12

14

Laboratory Data Package Cover Page - Page 3 of 4

	atory Na		LRC Date: 12/05/2					
	t Name:		Laboratory Job Num	ber: 820-	16056-1			
	wer Nam							
# ¹	A ²	Description		Yes	No	NA ³	NR⁴	ER#
S1	OI	Initial calibration (ICAL)						
		Were response factors and/or relative response factors for each and	alyte within QC	✓				
		limits?						
		Were percent RSDs or correlation coefficient criteria met?		✓ ✓				
		Was the number of standards recommended in the method used for	•	✓				
		Were all points generated between the lowest and highest standard the curve?	used to calculate					
		Are ICAL data available for all instruments used?		✓				
		Has the initial calibration curve been verified using an appropriate se	econd source	✓				
		standard?	300114 0041.00					
S2	OI	Initial and continuing calibration verification (ICCV	and CCV) and					
		continuing calibration blank (CCB):	,					
		Was the CCV analyzed at the method-required frequency?		✓				
		Were percent differences for each analyte within the method-require	ed QC limits?		✓			4
		Was the ICAL curve verified for each analyte?		✓				
		Was the absolute value of the analyte concentration in the inorganic	CCB < MDL?	✓				
S3	0	Mass spectral tuning						
	1	Was the appropriate compound for the method used for tuning?		✓				
		Were ion abundance data within the method-required QC limits?		✓				
S4	0	Internal standards (IS)						
		Were IS area counts and retention times within the method-required	QC limits?	✓				
S5	OI	Raw data (NELAC Section 5.5.10)						
		Were the raw data (for example, chromatograms, spectral data) revi	✓					
		analyst?	,					
		Were data associated with manual integrations flagged on the raw d	ata?	✓				
S6	0	Dual column confirmation						
		Did dual column confirmation results meet the method-required QC3	?	✓				
S7	0	Tentatively identified compounds (TICs)						
		If TICs were requested, were the mass spectra and TIC data subject	t to appropriate			✓		
		checks?						
S8	I	Interference Check Sample (ICS) results						
		Were percent recoveries within method QC limits?		✓				
S9	I	Serial dilutions, post digestion spikes, and method	of standard					
		additions						
		Were percent differences, recoveries, and the linearity within the QC	Climits specified	✓				
		in the method?	·					
S10	OI	Method detection limit (MDL) studies						
	<u>'</u>	Was a MDL study performed for each reported analyte?		✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?		✓				
S11	OI	Proficiency test reports						
		Was the laboratory's performance acceptable on the applicable prof	iciency tests or	✓				
		evaluation studies?						
S12	OI	Standards documentation						
		Are all standards used in the analyses NIST-traceable or obtained fr	om other	✓				
		appropriate sources?						
S13	OI	Compound/analyte identification procedures						
		Are the procedures for compound/analyte identification documented	?	✓				
S14	OI	Demonstration of analyst competency (DOC)						
		Was DOC conducted consistent with NELAC Chapter 5?		✓				
		Is documentation of the analyst's competency up-to-date and on file		✓				
S15	OI	Verification/validation documentation for methods (NELAC					
		Chapter 5)						
		Are all the methods used to generate the data documented, verified	, and validated,	✓				
		where applicable?	•					
	OI	Laboratory standard operating procedures (SOPs)						
S16	Oi							

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP -required report(s).
 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;

9

10

12

4 4

15

^{2.} O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

NA = Not applicable;

^{4.} NR = Not reviewed;

^{5.} ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Data Package Cover Page - Page 4 of 4

Laboratory Name: Eurofins Lubbock	LRC Date: 12/05/2024
Project Name: Apache EBDU	Laboratory Job Number: 820-16056-1
Reviewer Name:	•
ER#¹ Description	,
1 Method 300.0: The matrix spike / matrix spike duplicat	e (MS/MSD) recoveries for analytical batch 860-198125 were outside control limits. Sample
matrix interference is suspected because the associate	ed laboratory control sample (LCS) recovery was within acceptance limits.
Method 6020B: The matrix spike / matrix spike duplica	te (MS/MSD) recoveries for preparation batch 860-198887 and analytical batch 860-199266
were outside control limits. Sample matrix interference	e is suspected because the associated laboratory control sample (LCS) recovery was
within acceptance limits.	
Method Kelada 01: The matrix spike / matrix spike dup	olicate (MS/MSD) recoveries for analytical batch 860-200787 were outside control limits.
Sample matrix interference is suspected because the	associated laboratory control sample (LCS) recovery was within acceptance limits.
Method Kelada 01: The matrix spike / matrix spike dup	olicate (MS/MSD) recoveries for analytical batch 860-201327 were outside control limits.
	associated laboratory control sample (LCS) recovery was within acceptance limits.
	e (MS/MSD) recoveries for analytical batch 860-202173 were outside control limits. Sample
· ·	ed laboratory control sample (LCS) recovery was within acceptance limits.
	e (MS/MSD) recoveries for analytical batch 860-203049 were outside control limits. Sample
· ·	ed laboratory control sample (LCS) recovery was within acceptance limits.
	e (MS/MSD) recoveries for analytical batch 860-198126 were outside control limits for one
	Sample matrix interference and/or non-homogeneity are suspected because the associated
laboratory control sample (LCS) recovery is within acc	
	de Calibration Range: Due to the sample interference and nature of the sample, the
	alibration range. The data have been reported and qualified. TMW-17 (820-16056-1). Note:
	when stirred but precipitates when settled. Due to the nature of the sample we are getting
inconsistent result and dilution result is not confirming 3 Method 420 4: The following sample was diluted due to	
Elevated reporting limits (RL) are provided.	o being a briny sample and cannot be run at a lower dilution: TMW-17 (820-16056-1).
	to the nature of the sample matrix: TMW-17 (820-16056-1). Elevated reporting limits (RLs)
are provided.	to the nature of the sample matrix. Thirve-17 (020-10000-1). Elevated reporting limits (NES)
'	ng the concentration of target analytes within the calibration range: TMW-17
(820-16056-1). Elevated reporting limits (RLs) are pro	
, , , , , , , , , , , , , , , , , , , ,	ng the concentration of target analytes within the calibration range: TMW-19
(820-16056-2). Elevated reporting limits (RLs) are pro	
	(CCV) associated with batch 860-198893 recovered above the upper control limit for
	ated with this CCV were non-detects for the affected analytes; therefore, the data have
been reported. The associated sample is impacted: (0	CCVIS 860-198893/2).
Method 8260D: The continuing calibration verification	(CCV) associated with batch 860-198893 recovered outside acceptance criteria, low
	level standard was analyzed, and the target analytes are detected. Since the associated
samples were non-detect for the analyte(s), the data a	
ER# = Exception Report identification number (an Exception	on Report should be completed for an item if "NR" or "No" is checked).

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Joseph Guesnier Terracon Consulting Eng & Scientists 5847 50th St Lubbock, Texas 79424

Generated 11/14/2024 5:14:56 PM

JOB DESCRIPTION

Apache EBDU

JOB NUMBER

820-16082-1

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 11/14/2024 5:14:56 PM

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

Client: Terracon Consulting Eng & Scientists Laboratory Job ID: 820-16082-1

Project/Site: Apache EBDU

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

Definitions/Glossary

Job ID: 820-16082-1 Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Qualifiers

HPLC/IC

Qualifier **Qualifier Description**

Analyte was not detected at or above the SDL.

Metals

Qualifier **Qualifier Description**

Analyte was not detected at or above the SDL.

General Chemistry

Qualifier **Qualifier Description**

U Analyte was not detected at or above the SDL.

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

Colony Forming Unit CFU **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

Decision Level Concentration (Radiochemistry) DLC

EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) Limit of Quantitation (DoD/DOE) LOQ

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 Method Quantitation Limit MQL

Not Calculated NC

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)

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TFF Toxicity Equivalent Quotient (Dioxin) **TEQ**

TNTC Too Numerous To Count

Case Narrative

Client: Terracon Consulting Eng & Scientists

Project: Apache EBDU

Job ID: 820-16082-1

Job ID: 820-16082-1 Eurofins Lubbock

Job Narrative 820-16082-1

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 11/6/2024 4:04 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 0.1°C.

HPLC/IC

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

Metals

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

.

2

4

5

9

. .

12

Client Sample Results

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Client Sample ID: TMW-1 Date Collected: 11/06/24 09:51

Date Received: 11/06/24 16:04

Matrix: Water

Job ID: 820-16082-1

Lab	Sample	ID:	820)-16	5082-1

Method: EPA 300.0 - Anions, Ion C	hromatograp	hy							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil F
Chloride	128		0.500	0.250	mg/L			11/13/24 08:30	

Method: SW846 6020B - Metals (ICP/MS)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Anal

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.285		0.00400	0.00134	mg/L		11/11/24 03:42	11/11/24 16:31	1

General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	632		10.0	10.0	mg/L			11/08/24 07:33	1

Client Sample ID: TMW-3	Lab Sample ID: 820-16082-2
Date Collected: 11/06/24 10:18	Matrix: Water

Date Collected: 11/06/24 10:18 Date Received: 11/06/24 16:04

Analyte	Result Qualifie	RL	MDL Ur	Init	D	Prepared	Analyzed	Dil Fac
Chloride	183	0.500	0.250 m	ng/L			11/13/24 08:43	1

Method. 541040 0020D - Metals (101 /Mt	"								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.0952		0.00400	0.00134	mg/L		11/11/24 03:42	11/11/24 16:33	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac

Analyte	Result Qualifier	RL	RL Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	889	10.0	10.0 mg/L			11/08/24 07:33	1

Client Sample ID: TMW-21 Lab Sample ID: 820-16082-3 Date Collected: 11/06/24 11:35 **Matrix: Water**

Date Received: 11/06/24 16:04

Method: EPA 300.0 - Anions, Ion Cl	hromatograp	hy							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	284		0.500	0.250	mg/L			11/13/24 08:56	1
Method: SW846 6020B - Metals (IC	•	Qualifier	RL	MDL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac

Allalyte	Result Qualifier	NL.	MIDL	Ollit	U	riepaieu	Allalyzeu	Dil Fac
Barium	0.0484	0.00400	0.00134	mg/L		11/11/24 03:42	11/11/24 16:36	1
Consend Chamista								

General Chemistry							
Analyte	Result Qualifier	RL	RL Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1040	10.0	10.0 mg/L			11/08/24 07:33	1

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16082-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-199248/13 Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Water

Analysis Batch: 199248

-	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U	0.500	0.250	mg/L			11/12/24 15:42	1

Lab Sample ID: MB 860-199248/63 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 199248

	IAID IAID						
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250 U	0.500	0.250 mg/L			11/13/24 05:08	1

Lab Sample ID: LCS 860-199248/14 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 199248

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	10.0	10.26		mg/L		103	90 - 110	

Lab Sample ID: LCS 860-199248/64 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 199248

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	10.0	10.26		mg/L		103	90 - 110	Π

Lab Sample ID: LCSD 860-199248/15 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 199248

	Spike	LCSD	LUSD			76ReC		KPD	
Analyte	Added	Result	Qualifier	Unit	D %R	ec Limits	RPD	Limit	
Chloride	10.0	9.929		mg/L		99 90 - 110	3	20	

Lab Sample ID: LCSD 860-199248/65 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 199248

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	10.0	10.19		mg/L		102	90 - 110	1	20

Lab Sample ID: LLCS 860-199248/17 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 199248

	Spike	LLCS	LLCS			%Rec	
Analyte	Added	Result	Qualifier Unit	D	%Rec	Limits	
Chloride	0.500	0.5931	mg/L		119	50 - 150	

QC Sample Results

RL

0.00400

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16082-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 860-198887/1-A

Matrix: Water Analysis Batch: 199266

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

D

Prep Batch: 198887

Prep Type: Total/NA

Prep Batch: 198887

Prep Type: Total/NA

Prep Batch: 198887

Prep Type: Total/NA

Prep Type: Total/NA

Dil Fac Prepared Analyzed

11/11/24 14:34

Lab Sample ID: LCS 860-198887/2-A

Matrix: Water

Analysis Batch: 199266

Spike Added 0.100

Spike

Added

0.100

LCS LCS Result Qualifier 0.09831

MDL Unit

0.00134 mg/L

Unit mg/L

D %Rec 98

%Rec

11/11/24 03:42

%Rec Limits 80 - 120

Client Sample ID: Lab Control Sample Dup

Client Sample ID: Lab Control Sample

RPD

Limit

20

Lab Sample ID: LCSD 860-198887/3-A

Matrix: Water

Analyte

Barium

Analyte

Barium

Barium

Analysis Batch: 199266

Analyte

MB MB

<0.00134 U

Result Qualifier

LCSD LCSD Result Qualifier 0.09890

Unit mg/L

%Rec Limits RPD 80 - 120

Client Sample ID: Method Blank

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

Lab Sample ID: MB 860-198514/1

Matrix: Water

Analysis Batch: 198514

мв мв

Analyte Result Qualifier Total Dissolved Solids <5.00 U

RL 5.00

RL Unit 5.00 mg/L

Prepared Analyzed 11/08/24 07:33

Dil Fac

Lab Sample ID: LCS 860-198514/2

Matrix: Water

Total Dissolved Solids

Analysis Batch: 198514

Spike Added

1000

LCS LCS Qualifier Result 936.0

Unit mg/L %Rec

%Rec Limits 80 - 120

Client Sample ID: Lab Control Sample

QC Association Summary

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16082-1

HPLC/IC

Analysis Batch: 199248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16082-1	TMW-1	Total/NA	Water	300.0	
820-16082-2	TMW-3	Total/NA	Water	300.0	
820-16082-3	TMW-21	Total/NA	Water	300.0	
MB 860-199248/13	Method Blank	Total/NA	Water	300.0	
MB 860-199248/63	Method Blank	Total/NA	Water	300.0	
LCS 860-199248/14	Lab Control Sample	Total/NA	Water	300.0	
LCS 860-199248/64	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-199248/15	Lab Control Sample Dup	Total/NA	Water	300.0	
LCSD 860-199248/65	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-199248/17	Lab Control Sample	Total/NA	Water	300.0	

Metals

Prep Batch: 198887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
820-16082-1	TMW-1	Total/NA	Water	3010A	
820-16082-2	TMW-3	Total/NA	Water	3010A	
820-16082-3	TMW-21	Total/NA	Water	3010A	
MB 860-198887/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-198887/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-198887/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	

Analysis Batch: 199266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16082-1	TMW-1	Total/NA	Water	6020B	198887
820-16082-2	TMW-3	Total/NA	Water	6020B	198887
820-16082-3	TMW-21	Total/NA	Water	6020B	198887
MB 860-198887/1-A	Method Blank	Total/NA	Water	6020B	198887
LCS 860-198887/2-A	Lab Control Sample	Total/NA	Water	6020B	198887
LCSD 860-198887/3-A	Lab Control Sample Dup	Total/NA	Water	6020B	198887

General Chemistry

Analysis Batch: 198514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16082-1	TMW-1	Total/NA	Water	SM 2540C	- <u> </u>
820-16082-2	TMW-3	Total/NA	Water	SM 2540C	
820-16082-3	TMW-21	Total/NA	Water	SM 2540C	
MB 860-198514/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-198514/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Job ID: 820-16082-1

Lab Sample ID: 820-16082-1

Matrix: Water

Date Collected: 11/06/24 09:51 Date Received: 11/06/24 16:04

Client Sample ID: TMW-1

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			199248	11/13/24 08:30	HN	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	198887	11/11/24 03:42	AGR	EET HOU
Total/NA	Analysis	6020B		1			199266	11/11/24 16:31	DP	EET HOU
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	198514	11/08/24 07:33	TR	EET HOU

Client Sample ID: TMW-3 Date Collected: 11/06/24 10:18

Date Received: 11/06/24 16:04

Lab Sample ID: 820-16082-2 **Matrix: Water**

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			199248	11/13/24 08:43	HN	EET HOU
Total/NA	Prep	3010A			50 mL	50 mL	198887	11/11/24 03:42	AGR	EET HOU
Total/NA	Analysis	6020B		1			199266	11/11/24 16:33	DP	EET HOU
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	198514	11/08/24 07:33	TR	EET HOU

Initial

Amount

50 mL

100 mL

Final

Amount

50 mL

200 mL

199266

198514

Dil

1

Factor

Run

Client Sample ID: TMW-21 Date Collected: 11/06/24 11:35

Date Received: 11/06/24 16:04

Batch

Туре

Prep

Analysis

Analysis

Analysis

Batch	Prepared		
Number	or Analyzed	Analyst	Lab
199248	11/13/24 08:56	HN	EET HOU
198887	11/11/24 03:42	AGR	EET HOU

DP

11/11/24 16:36

11/08/24 07:33

Lab Sample ID: 820-16082-3

Matrix: Water

EET HOU

EET HOU

I ah anatana Bafanana
Laboratory References:

Prep Type

Total/NA

Total/NA

Total/NA

Total/NA

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

SM 2540C

Batch

Method

300.0

3010A

6020B

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16082-1

Laboratory: Eurofins Houston

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-03-25
Florida	NELAP	E871002	06-30-25
Louisiana (All)	NELAP	03054	06-30-25
Oklahoma	NELAP	1306	08-31-25
Texas	NELAP	T104704215	06-30-25
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

9

Δ

5

6

8

9

10

12

Method Summary

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16082-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET HOU
6020B	Metals (ICP/MS)	SW846	EET HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET HOU
3010A	Preparation, Total Metals	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

Eurofins Lubbock

,

3

4

5

7

8

11

Ш

Sample Summary

Client: Terracon Consulting Eng & Scientists

Project/Site: Apache EBDU

Job ID: 820-16082-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
820-16082-1	TMW-1	Water	11/06/24 09:51	11/06/24 16:04
820-16082-2	TMW-3	Water	11/06/24 10:18	11/06/24 16:04
820-16082-3	TMW-21	Water	11/06/24 11:35	11/06/24 16:04

3

4

R

9

11

12

0 TEMP OF COOLER .- 0 . I Lab Sample ID ð Page_ DUE DATE: jack. kirkpatrick@terracon.com john.grams@terracon.com joseph.guesnier@terracon.com 820-16082 Chain of Custody e-mail results to: Barium × × × Bill To: MMAC Human Health Standards ANALYSIS REQUESTED × × Chloride (EPA Method 300) Lubbock Office = 5847 50th Street = Lubbock, Texas 79424 = 806-300-0140 10:04 XX Total Dissolved Solids (TDS) AOV Im 03 preserved AOV Im 04 nubreserved Responsive m Resourceful m Reliable 487 o 744 AOV Im 04 Amber Jm 057 atory ! 11 Poly Lubbock, Texas 79424 Viog im 025 6701 Aberdeen 306 nd Depth (FT) Sampler's Signature Start Depth (FT) Received by (Signature) Laboratory: Address: 24-Hour Rush Phone: Contact: Identifying Marks of Sample(s) 1604 EBDU ☐ 72-Hour Rush 11/6/24 TMW-2 TAW-3 S-Soil Joseph Gresnich TAW-Apeche Project Name Normal XXX Grab Comp Lubbock 1018 1560 Time KH247030 VOA -URNAROUND TIME Project Manager Sampler's Name Project Number elinquished by (Signature) nquished by (Signature 11/6/24 W 11/6/24 W 11/6/24 Date

Matrix

Client: Terracon Consulting Eng & Scientists

Job Number: 820-16082-1

Login Number: 16082 List Source: Eurofins Lubbock

List Number: 1

Creator: Guillen, Kyrstin

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	

4

9

--

6

8

4 0

11

14

Client: Terracon Consulting Eng & Scientists

Job Number: 820-16082-1

List Source: Eurofins Houston
List Number: 2
List Creation: 11/07/24 12:35 PM

Creator: Baker, Jeremiah

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	True	

11/14/2024

<6mm (1/4").

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 424248

CONDITIONS

Operator:	OGRID:		
APACHE CORPORATION	873		
303 Veterans Airpark Ln	Action Number:		
Midland, TX 79705	424248		
	Action Type:		
	[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)		

CONDITIONS

Created By	Condition	Condition Date
bhall	4Q2024 Groundwater Monitoring Report accepted for record.	2/14/2025
bhall	Be advised that OCD has reviewed and recalculated the groundwater elevations and has determined that the groundwater elevation calculated on the attached Table 1, Groundwater Gauging Measurements for TMW-13 for the 12/20/2023 and 3/14/2024 event are incorrect. Based on OCD's calculations the groundwater elevations should be as follows: 12/20/2023- 3,365.23 feet AMSL and 3/14/2024-3,365.30 ft AMSL.	2/14/2025
bhall	Additionally, all conditions of approval for this report issued by the OCC during the hearing for Case Number: 24912 remain in effect. This includes compliance with all reporting requirements even if the required groundwater monitoring and sampling occur outside of standard quarterly reporting periods.	2/14/2025
bhall	Submit the 1Q2025 (1st Quarter 2025) Groundwater Monitoring report through the OCD Permitting website via the UF-GWA application by the end of business on April 30, 2025.	2/14/2025