APACHE CORPORATION

PRE-HEARING EXHIBITS

PART 4

EXHIBITS:

C-3

APACHE EXHIBIT C-3

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

January 8, 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
Apache Corporation
EBDU #37
Case No. (1R-5636), Incident ID NDHR192214227
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. Should you have any questions regarding this work plan, please contact either of the undersigned at 806-300-0140.

Sincerely,
Terracon

John Grams, P.G. (Texas)
Project Hydrogeologist

Joseph Guesnier
Office Manager, Carlsbad, NM

cc: Barrett Bole, Apache Corp.

Attachment – 2024 Fourth Quarter Groundwater Monitoring Report

2024 Fourth Quarter Groundwater Monitoring Report

East Blinebry Drinkard Unit (EBDU) #37

Lea County, New Mexico

January 8, 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 8, 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
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

John Grams, PG (TX)
Senior Geologist

Enclosure

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APPENDICES

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.

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™ passive samplers. The Hydrasleeve™ 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™ 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

was required for the desired analyses (TMW-17), or because there was insufficient water recovered by the Hydrasleeve™. 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.

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
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-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									10/11/2021	57.99	54.83	15.26	3,365.20
TMW-4									12/22/2021	57.90	54.74	15.35	3,365.29
TMW-4									3/1/2022	57.87	54.71	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									10/23/2024	58.20	55.25	20.39	3,363.66
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	62.17	59.75	9.93	3,364.38
TMW-6									3/14/2023	62.08	59.66	10.02	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	10.15	3,364.60
TMW-6									12/20/2023	61.88	59.46	10.22	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									10/23/2024	55.59	52.79	20.96	3,364.49
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	51.14	48.27	20.76	3,366.35
TMW-9									9/6/2023	53.66	50.79	18.24	3,363.83
TMW-9									12/21/2023	53.55	50.68	18.35	3,363.94
TMW-9									3/14/2024	53.45	50.58	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									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									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									10/23/2024	64.07	61.30	22.60	3,363.15

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	3,366.19
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	<0.000800	<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**	--
	10/24/2024	--	--	--	--	**612**	**1,760**	--

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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-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	18.0	373	--
	09/06/2023	<0.00200	<0.00200	<0.00200	<0.00400	41.8	390	--
	12/21/2023	<0.00100	<0.00100	<0.00100	<0.0100	37.3	404	--
	03/12/2024	<0.00200	<0.00200	<0.00200	<0.00400	29.3	373	--
	10/24/2024	--	--	--	--	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 (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-18	12/20/2023	<0.00200	<0.00200	<0.00200	<0.00400	**2,050**	**6,430**	--
	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:

(1): analysis performed by Cardinal Laboratories, Hobbs, New Mexico, by EPA SW-846 Method 8021B (BTEX) and titration methods (chloride and TDS).
(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
Highlighted and Bold represents results that exceed the NMWQCC applicable 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 - Human Health Standards						
A.	Parameter	Regulatory Limit (mg/L)	Windmill Well			TMW-17
			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	<0.000200	--	--	**0.000361**
(k)	Nitrate	10.0	**2.78**	--	--	**8.21**
(l)	Nitrite	1.0	<0.100	--	--	<0.699
(m)	Selenium	0.05	<0.00200	--	--	**0.0227**
(n)	Silver	0.05	<0.00200	--	--	<0.000390
(o)	Thallium	0.002	<0.00200	--	--	<0.00185
(p)	Uranium	0.03	**0.00315**	--	--	**0.0131**
(q)	Radioactivity (combined R226 and R228)	5.0	**0.945**	--	--	U
(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 monomethylnapthalenes	0.03	<0.571	--	--	<0.00135
(kk)	benzo-a-pyrene	0.0002	<0.571	--	--	--
(ll)	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
(oo)	Styrene	0.1	<0.00100	--	--	<0.000619
(pp)	1,2-dichlorobenzene	0.60	<0.00100	--	--	<0.000429
(qq)	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	--	--	--

Table 3 - Summary of Human Health Standards Analytical Results
EBDU 37
32.480758, -103.120642
Terracon Project No. KH247030

20.6.2.3103 NMAC - Standards for Domestic Water Supply						
B.	Parameter	Regulatory Limit (mg/L)	Sample Date			
			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)	pH	6 - 9	7.3	--	--	7
(10)	Methy tertiary-butyl ether (MTBE)	0.1	<0.00500	--	--	<0.00139
20.6.2.3103 NMAC - Standards for Irrigation Use						
C.	Parameter	Regulatory Limit (mg/L)	Sample Date			
			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.

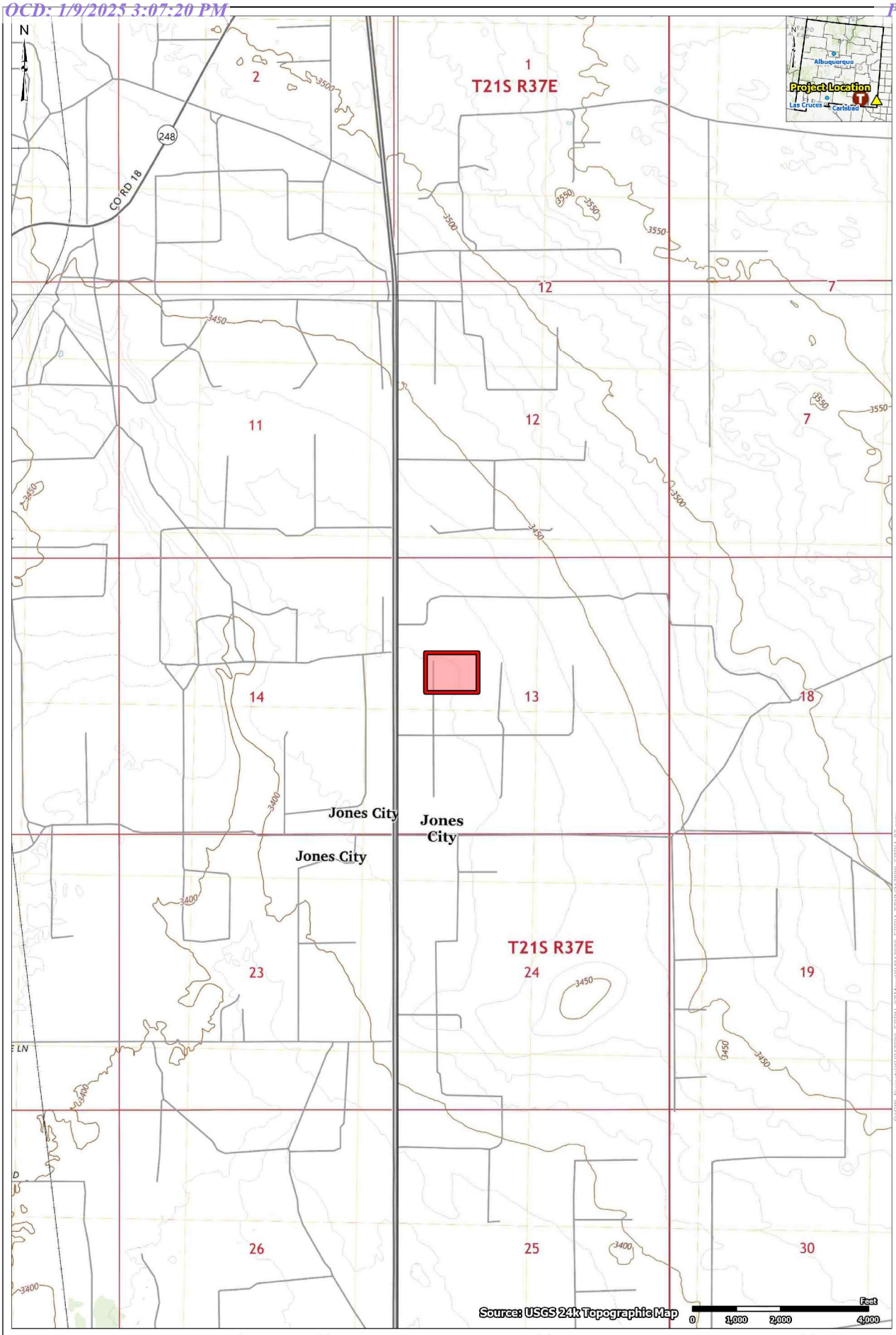
All values reported in milligrams per liter (mg/L) equivalent to parts per million (ppm)

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

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

FIGURES



Site Location

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

terracon

4526 W Pierce St
Carlsbad, NM

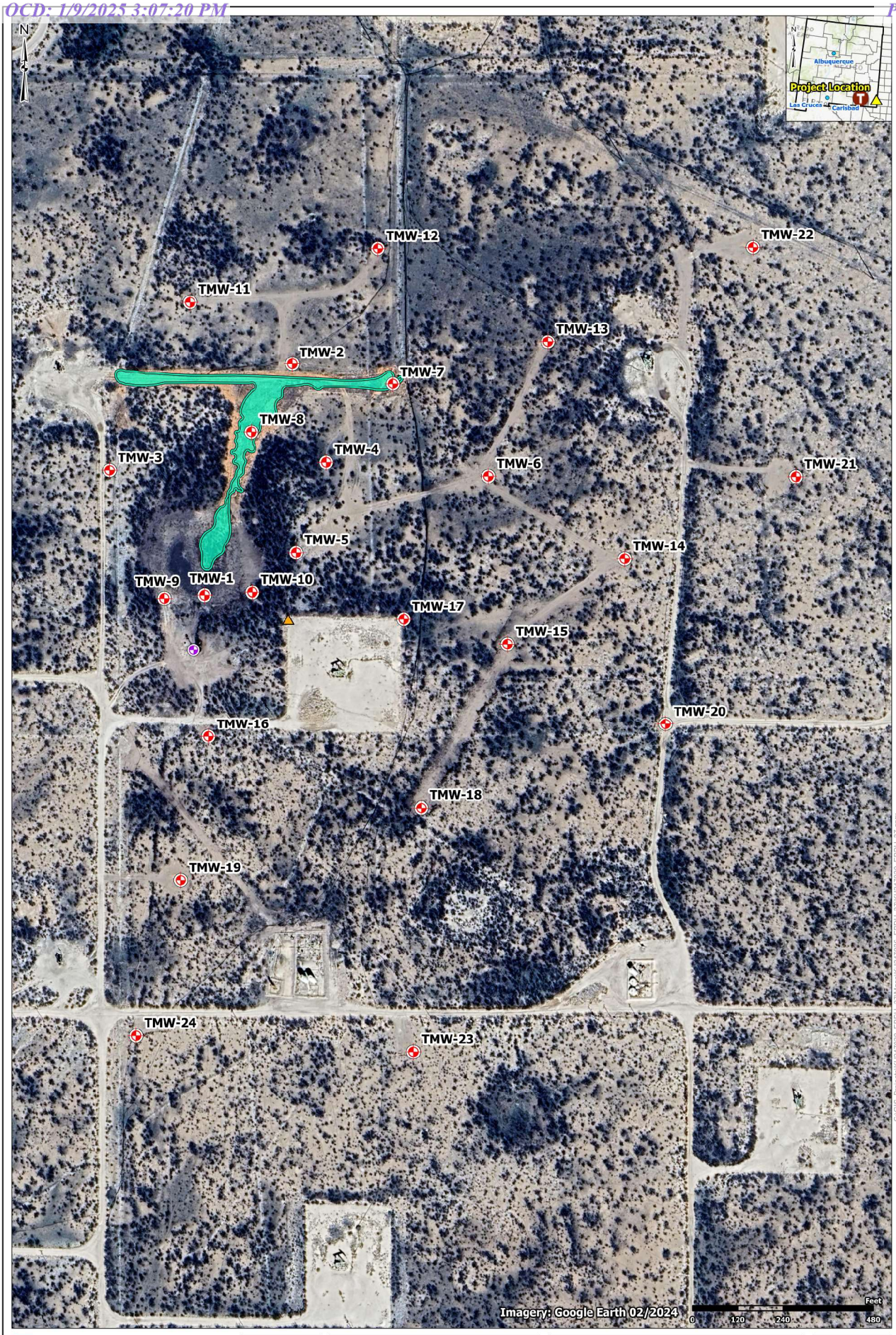
PH. 806-300-0140 terracon.com

Topographic Map

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

Exhibit

1.0



Inferred Release
Existing Monitoring Well
Static Control GPS
Windmill

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

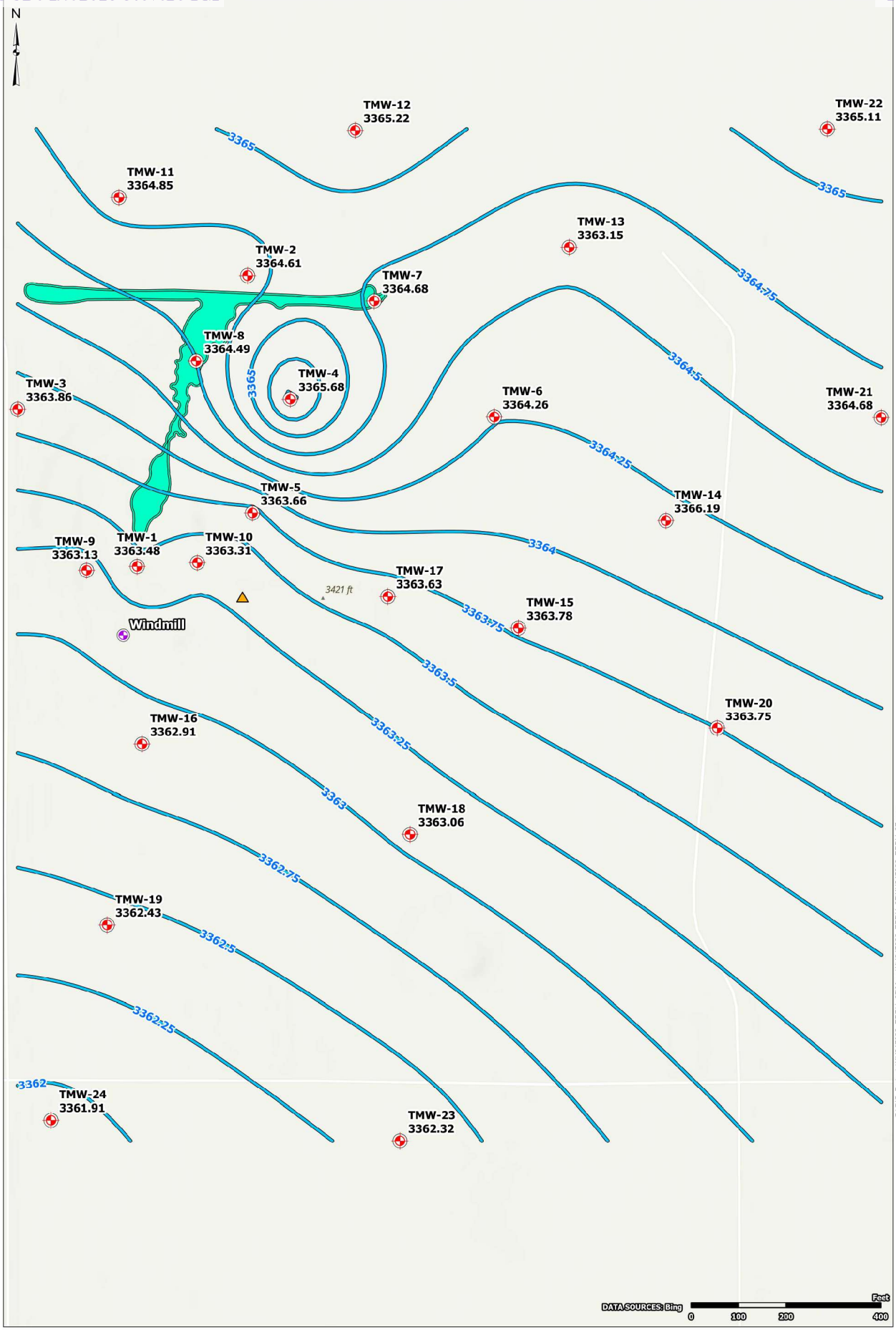
Terracon
4526 W Pierce St
Carlsbad, NM
PH. 806-300-0140 terracon.com

Monitoring Well Location Map

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

Exhibit

1.1



Inferred Release
Groundwater Contours
Existing Monitoring Well
Static Control GPS
Windmill

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

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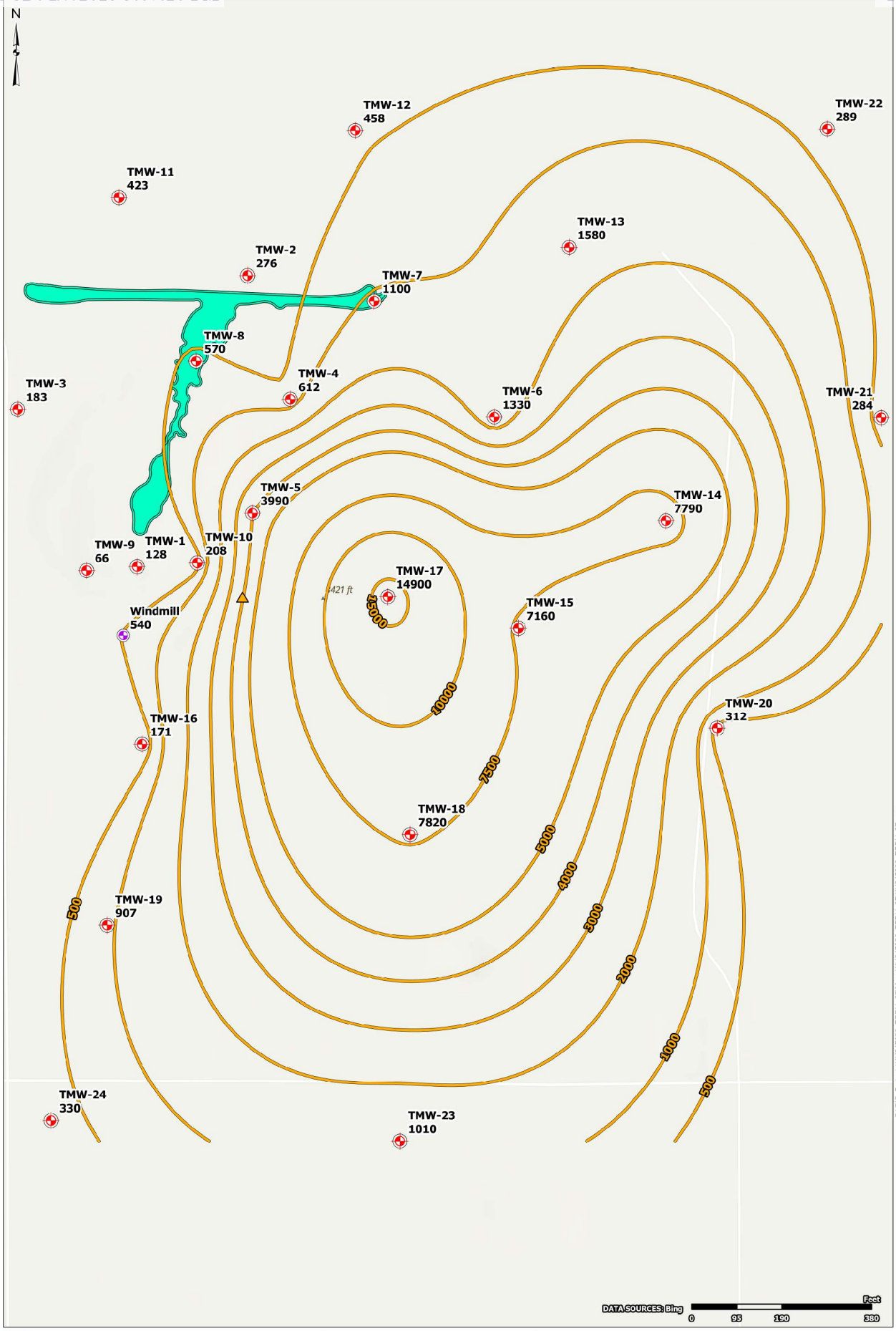
4526 W Pierce St
Carlsbad, NM
PH. 806-300-0140 terracon.com

Groundwater Gradient Map - 10/2024

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

Exhibit

2.1



Inferred Release
500 mg/l Chloride Contours
Existing Monitoring Well
Static Control GPS
Windmill

Project No.:	KH247030
Date:	Jan 03 2025
Drawn By:	JWL
Reviewed By:	JRG

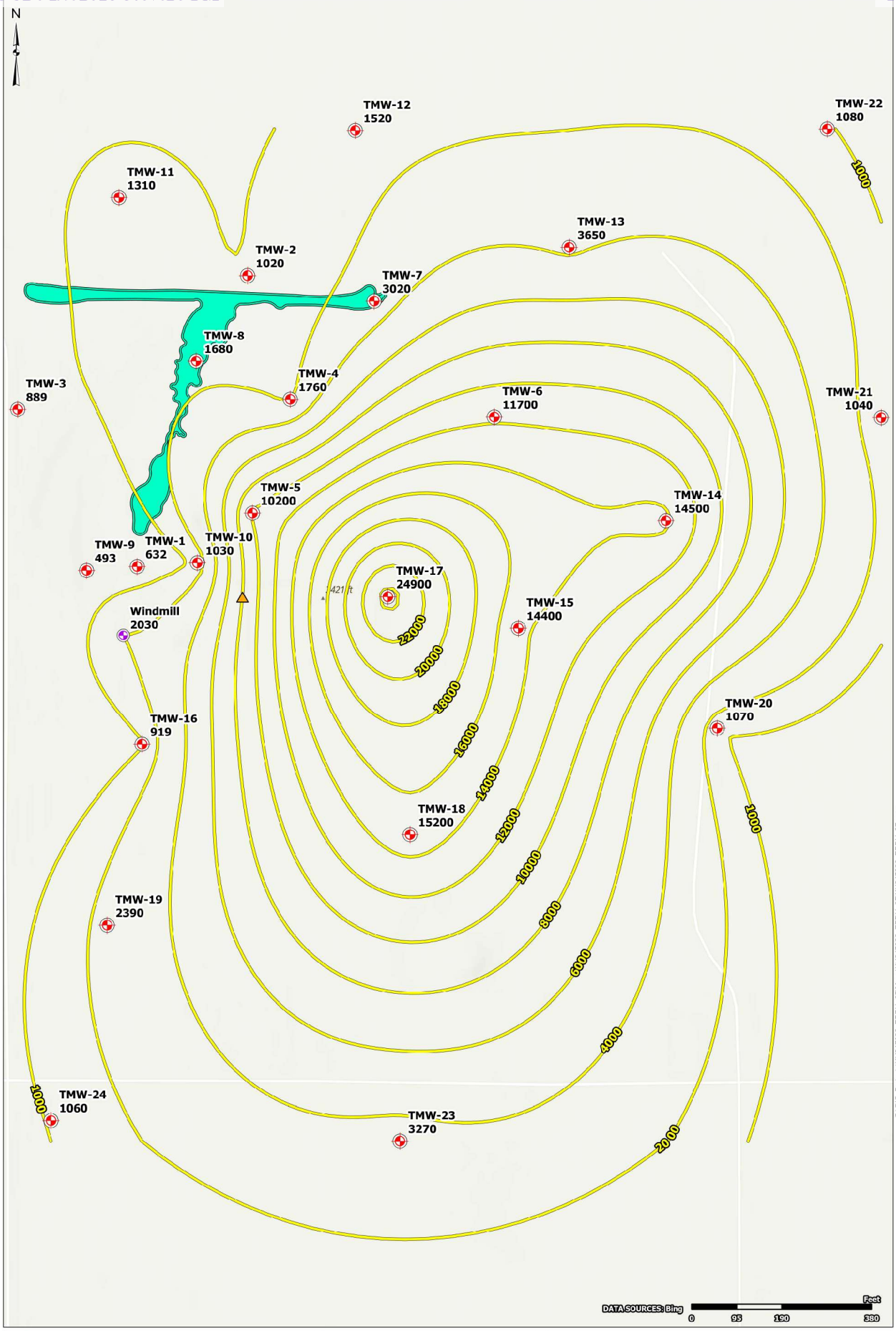
Terracon
4526 W Pierce St
Carlsbad, NM
PH. 806-300-0140 terracon.com

Chloride Concentration Map - 10/2024

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

Exhibit

3.1



Inferred Release
2,000 mg/l TDS Contours
Existing Monitoring Well
Static Control GPS
Windmill

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

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

TDS Concentration Map - 10/2024

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

Exhibit

4.1

APPENDIX A – LABORATORY DATA PACKAGES

eurofins | 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

See page two for job notes and contact information.

my EOL

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
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Eurofins Lubbock

Compliance Statement

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

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

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

ERF = field staff performs tests under NJ State certification # 02015.
VL = field staff performs tests under NJ State certification # 06005.
WG = field staff performs tests under NJ State certification # PA001, PA State certification # 48-01334.
H = field staff performs tests under NJ NELAP certification # PA093, PA NELAP certification # 46-05499.

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

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

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

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

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

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

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

Kramer

Table of Contents

Definitions/Glossary

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

Job ID: 820-15913-1
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.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Terracon Consulting Eng & Scientists
Project: Apache EBDU

Job ID: 820-15913-1

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.

Client Sample Results

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

Job ID: 820-15913-1
SDG: KH247030

Client Sample ID: TMW-7

Lab Sample ID: 820-15913-1
Matrix: Water
Date Collected: 10/24/24 10:27
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
Chloride	1100		2.50		mg/L			10/29/24 15:38	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	3020		40.0		mg/L			10/29/24 10:02	1

Client Sample ID: TMW-4

Lab Sample ID: 820-15913-2
Matrix: Water
Date Collected: 10/24/24 10:45
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
Chloride	612		2.50		mg/L			10/29/24 15:53	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1760		20.0		mg/L			10/29/24 10:02	1

Client Sample ID: TMW-2

Lab Sample ID: 820-15913-3
Matrix: Water
Date Collected: 10/24/24 10:57
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
Chloride	276		2.50		mg/L			10/29/24 16:22	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1020		10.0		mg/L			10/29/24 10:02	1

Client Sample ID: TMW-8

Lab Sample ID: 820-15913-4
Matrix: Water
Date Collected: 10/24/24 11:07
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
Chloride	570		2.50		mg/L			10/29/24 16:37	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1680		20.0		mg/L			10/29/24 10:02	1

Client Sample ID: TMW-11

Lab Sample ID: 820-15913-5
Matrix: Water
Date Collected: 10/24/24 11:17
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
Chloride	423		2.50		mg/L			10/29/24 16:52	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1310		20.0		mg/L			10/29/24 10:02	1

Client Sample Results

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

Job ID: 820-15913-1
SDG: KH247030

Client Sample ID: TMW-12

Lab Sample ID: 820-15913-6
Matrix: Water
Date Collected: 10/24/24 11:26
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
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

Client Sample ID: TMW-13

Lab Sample ID: 820-15913-7
Matrix: Water
Date Collected: 10/24/24 11:37
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
Chloride	1580		2.50		mg/L			10/29/24 17:01	5

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
Matrix: Water
Date Collected: 10/24/24 11:46
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
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
Matrix: Water
Date Collected: 10/24/24 11:52
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
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
Matrix: Water
Date Collected: 10/24/24 11:59
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
Chloride	7160		50.0		mg/L			10/29/24 20:11	100

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	14400		100		mg/L			10/29/24 10:02	1

Client Sample Results

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

Job ID: 820-15913-1
SDG: KH247030

Client Sample ID: TMW-18

Lab Sample ID: 820-15913-11
Matrix: Water
Date Collected: 10/24/24 12:08
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
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

Client Sample ID: TMW-5

Lab Sample ID: 820-15913-12
Matrix: Water
Date Collected: 10/24/24 12:16
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
Chloride	3990		5.00		mg/L			10/29/24 20:33	10

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	10200		100		mg/L			10/29/24 10:02	1

Client Sample ID: TMW-9

Lab Sample ID: 820-15913-13
Matrix: Water
Date Collected: 10/24/24 12:26
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
Chloride	65.5		2.50		mg/L			10/29/24 20:46	5

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	1

Client Sample ID: TMW-10

Lab Sample ID: 820-15913-14
Matrix: Water
Date Collected: 10/24/24 12:35
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
Chloride	208		2.50		mg/L			10/29/24 20:59	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1030		10.0		mg/L			10/29/24 10:02	1

Client Sample ID: TMW-16

Lab Sample ID: 820-15913-15
Matrix: Water
Date Collected: 10/24/24 12:52
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
Chloride	171		2.50		mg/L			10/29/24 21:12	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	919		10.0		mg/L			10/29/24 10:02	1

Client Sample Results

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

Job ID: 820-15913-1
SDG: KH247030

Client Sample ID: TMW-23

Lab Sample ID: 820-15913-17
Matrix: Water
Date Collected: 10/24/24 13:17
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
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

Client Sample ID: TMW-20

Lab Sample ID: 820-15913-18
Matrix: Water
Date Collected: 10/24/24 13:25
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
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
Total Dissolved Solids (SM 2540C)	1070		10.0		mg/L			10/29/24 10:02	1

Client Sample ID: TMW-22

Lab Sample ID: 820-15913-19
Matrix: Water
Date Collected: 10/24/24 13:33
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
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

QC Sample Results

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 860-196460/3
Matrix: Water
Analysis Batch: 196460

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

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

Lab Sample ID: MB 860-196460/62
Matrix: Water
Analysis Batch: 196460

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

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

Lab Sample ID: LCS 860-196460/4
Matrix: Water
Analysis Batch: 196460

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

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

Lab Sample ID: LCS 860-196460/63
Matrix: Water
Analysis Batch: 196460

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

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

Lab Sample ID: LCSD 860-196460/5
Matrix: Water
Analysis Batch: 196460

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

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

Lab Sample ID: LCSD 860-196460/64
Matrix: Water
Analysis Batch: 196460

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

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

Lab Sample ID: LLCS 860-196460/33
Matrix: Water
Analysis Batch: 196460

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

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

Lab Sample ID: MB 860-196466/3
Matrix: Water
Analysis Batch: 196466

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

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

QC Sample Results

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
Matrix: Water
Analysis Batch: 196466

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.500	U	0.500		mg/L			10/29/24 17:52	1

Lab Sample ID: LCS 860-196466/4
Matrix: Water
Analysis Batch: 196466

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

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

Lab Sample ID: LCS 860-196466/61
Matrix: Water
Analysis Batch: 196466

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

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

Lab Sample ID: LCSD 860-196466/5
Matrix: Water
Analysis Batch: 196466

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

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

Lab Sample ID: LCSD 860-196466/62
Matrix: Water
Analysis Batch: 196466

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

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

Lab Sample ID: LLCS 860-196466/7
Matrix: Water
Analysis Batch: 196466

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

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

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

Lab Sample ID: MB 860-196464/1
Matrix: Water
Analysis Batch: 196464

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	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
Matrix: Water
Analysis Batch: 196464

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

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

Lab Sample ID: 820-15913-1 DU
Matrix: Water
Analysis Batch: 196464

Client Sample ID: TMW-7
Prep Type: Total/NA

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

Lab Sample ID: 820-15913-2 DU
Matrix: Water
Analysis Batch: 196464

Client Sample ID: TMW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1760			1740		mg/L				1	10

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

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
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	

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	

Lab Chronicle

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

Job ID: 820-15913-1
SDG: KH247030

Client Sample ID: TMW-7
Date Collected: 10/24/24 10:27
Date Received: 10/25/24 12:30

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		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
Date Collected: 10/24/24 10:45
Date Received: 10/25/24 12:30

Lab Sample ID: 820-15913-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		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
Date Collected: 10/24/24 10:57
Date Received: 10/25/24 12:30

Lab Sample ID: 820-15913-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			196460	10/29/24 16:22	WP	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-8
Date Collected: 10/24/24 11:07
Date Received: 10/25/24 12:30

Lab Sample ID: 820-15913-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		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
Date Collected: 10/24/24 11:17
Date Received: 10/25/24 12:30

Lab Sample ID: 820-15913-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	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

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			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

Lab Chronicle

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

Job ID: 820-15913-1
SDG: KH247030

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			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
Date Collected: 10/24/24 11:46
Date Received: 10/25/24 12:30

Lab Sample ID: 820-15913-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		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
Date Collected: 10/24/24 11:52
Date Received: 10/25/24 12:30

Lab Sample ID: 820-15913-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		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
Date Collected: 10/24/24 11:59
Date Received: 10/25/24 12:30

Lab Sample ID: 820-15913-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		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
Date Collected: 10/24/24 12:08
Date Received: 10/25/24 12:30

Lab Sample ID: 820-15913-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		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
Date Collected: 10/24/24 12:16
Date Received: 10/25/24 12:30

Lab Sample ID: 820-15913-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			196466	10/29/24 20:33	HN	EET HOU
Total/NA	Analysis	SM 2540C		1	10 mL	200 mL	196464	10/29/24 10:02	TR	EET HOU

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			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
Date Collected: 10/24/24 12:35
Date Received: 10/25/24 12:30

Lab Sample ID: 820-15913-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		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
Date Collected: 10/24/24 12:52
Date Received: 10/25/24 12:30

Lab Sample ID: 820-15913-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			196466	10/29/24 21:12	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
Date Collected: 10/24/24 13:17
Date Received: 10/25/24 12:30

Lab Sample ID: 820-15913-17
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		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
Date Collected: 10/24/24 13:25
Date Received: 10/25/24 12:30

Lab Sample ID: 820-15913-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		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
Date Collected: 10/24/24 13:33
Date Received: 10/25/24 12:30

Lab Sample ID: 820-15913-19
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		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

Accreditation/Certification Summary

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

Job ID: 820-15913-1
SDG: KH247030

Laboratory: Eurofins Houston

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215	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

Loc: 820
15913

820-15913 Chain of Custody

Terracon

Laboratory: Xenco
Address: 6701 Aberdeen
Lubbock, Texas 79424
Phone: (806)787-0744
Contact:

Office Location: Lubbock
Project Manager:
Sampler's Name: Jack Kirkpatrick
Sampler's Signature:

Project Number: KH247030
Project Name: Apache EBDU

1.4/-1.2 IR-1 / 10.2

TEMP OF COOLER WHEN RECEIVED (°C)

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth (FT)	End Depth (FT)	No. Type of Containers: 1L Poly	250 ml Poly			Total Dissolved Solids (TDS)	Chloride (EPA Method 300)						Lab Sample ID
GW	10/24/2024	1027		X	TMW-7			x	x			x	x						
GW	10/24/2024	1045		X	TMW-4			x	x			x	x						
GW	10/24/2024	1057		X	TMW-2			x	x			x	x						
GW	10/24/2024	1107		X	TMW-8			x				x	x						
GW	10/24/2024	1117		X	TMW-11			x	x			x	x						
GW	10/24/2024	1126		X	TMW-12			x	x			x	x						
GW	10/24/2024	1137		X	TMW-13			x	x			x	x						
GW	10/24/2024	1146		X	TMW-6			x	x			x	x						
GW	10/24/2024	1152		X	TMW-14			x	x			x	x						
GW	10/24/2024	1159		X	TMW-15			x	x			x	x						
GW	10/24/2024	1208		X	TMW-18			x	x			x	x						

TURNAROUND TIME: [X] Normal [ ] 72-Hour Rush [ ] 24-Hour Rush

TRRP Laboratory Review Checklist [ ] Yes [ ] No

Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Date:	Time:
	10/25/24	1230		10/25/24	1230
Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Date:	Time:

Bill To: Terracon

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

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

CHAIN OF CUSTODY RECORD

Terracon

Laboratory: Xenco
Address: 6701 Aberdeen
Lubbock, Texas 79424
Phone: (806) 787 - 0744
Contact:

Office Location: Lubbock
Project Manager:
Sampler's Name: Jack Kirkpatrick
Sampler's Signature:

Project Number: KH247030
Project Name: Apache EBDU

ANALYSIS REQUESTED

LAB USE ONLY
DUE DATE: -1.4/-1.2 IR-1/+0.2
TEMP OF COOLER WHEN RECEIVED (°C)

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth (FT)	End Depth (FT)	No. Type of Containers: 1L Poly	250 ml Poly			Total Dissolved Solids (TDS)	Chloride (EPA Method 300)					Lab Sample ID
GW	10/24/2024	1216		X	TMW-5			x	x			x	x					
GW	10/24/2024	1226		X	TMW-9			x	x			x	x					
GW	10/24/2024	1235		X	TMW-10			x	x			x	x					
GW	10/24/2024	1252		X	TMW-16			x	x			x	x					
GW	10/24/2024	1300		X	TMW-19			x	x			x	x					
GW	10/24/2024	1317		X	TMW-23			x	x			x	x					
GW	10/24/2024	1325		X	TMW-20			x	x			x	x					
GW	10/24/2024	1333		X	TMW-22			x				x	x					

NFE

TURNAROUND TIME: [X] Normal [ ] 72-Hour Rush [ ] 24-Hour Rush
TRRP Laboratory Review Checklist: [ ] Yes [ ] No

Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Date:	Time:
	10/25/24	1230	yarmeare Peña	10/25/24	12:30

Bill To: Terracon

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

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

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

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

Login Number: 15913
List Number: 1
Creator: Guillen, Kyrstin

List Source: Eurofins Lubbock

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

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

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

Login Number: 15913
List Number: 2
Creator: Jimenez, Nicanor

List Source: Eurofins Houston
List Creation: 10/28/24 03:47 PM

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 <6mm (1/4").	True	

eurofins | 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

See page two for job notes and contact information.

my EOL

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
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

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

Laboratory Job ID: 820-15934-1
SDG: KH247030

Table of Contents

Definitions/Glossary

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

Job ID: 820-15934-1
SDG: KH247030

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
U	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
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Terracon Consulting Eng & Scientists
Project: Apache EBDU

Job ID: 820-15934-1

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.

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

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	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	1

Client Sample ID: TMW-24

Lab Sample ID: 820-15934-3
Matrix: Water
Date Collected: 10/28/24 13:00
Date Received: 10/28/24 16:10

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	289		0.500	0.250	mg/L			10/30/24 23:28	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1070		10.0	10.0	mg/L			10/30/24 10:08	1

QC Sample Results

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

Job ID: 820-15934-1
SDG: KH247030

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-196771/3
Matrix: Water
Analysis Batch: 196771

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U	0.500	0.250	mg/L			10/30/24 11:40	1

Lab Sample ID: MB 860-196771/60
Matrix: Water
Analysis Batch: 196771

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U	0.500	0.250	mg/L			10/30/24 18:39	1

Lab Sample ID: LCS 860-196771/61
Matrix: Water
Analysis Batch: 196771

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

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

Lab Sample ID: LCSD 860-196771/5
Matrix: Water
Analysis Batch: 196771

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.22		mg/L		102	90 - 110	0	20

Lab Sample ID: LCSD 860-196771/62
Matrix: Water
Analysis Batch: 196771

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.19		mg/L		102	90 - 110	0	20

Lab Sample ID: LLCS 860-196771/7
Matrix: Water
Analysis Batch: 196771

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

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

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

Lab Sample ID: MB 860-196754/1
Matrix: Water
Analysis Batch: 196754

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00	5.00	mg/L			10/30/24 10:08	1

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
Matrix: Water
Analysis Batch: 196754

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

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

Lab Sample ID: LLCS 860-196754/3
Matrix: Water
Analysis Batch: 196754

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	5.00	6.500		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	

Lab Chronicle

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			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

Client Sample ID: TMW-24

Lab Sample ID: 820-15934-3

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

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			196771	10/30/24 23:28	WP	EET HOU
Total/NA	Analysis	SM 2540C		1	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

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

Job ID: 820-15934-1
SDG: KH247030

Laboratory: Eurofins Houston

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215	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
Project/Site: Apache EBDU

Job ID: 820-15934-1
SDG: KH247030

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

Loc: 820
15934

820-15934 Chain of Custody

Terracon

Laboratory: Xenco
Address: 6701 Aberdeen
Lubbock, Texas 79424

Office Location: Lubbock
Phone:
Project Manager
Contact:
Sampler's Name: Aaron Adams
Sampler's Signature:

TEMP OF COOLER WHEN RECEIVED (°C): 8.5/8.7

Page 1 of 1

Project Number: KH247030
Project Name: Apache EBDU

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth (FT)	End Depth (FT)	No. Type of Containers: 1L Poly	250 ml Poly	60 ml VOA	40 ml VOA preserved	40 ml VOA	250 ml amber preserved	Total Dissolved Solids (TDS)	Chloride (EPA Method 300)	NMAC Human Health Standards	Lab Sample ID
GW	10/28/2024	1005		X	Windmill			1	1					x	x		
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					x	x		

NFE

TURNAROUND TIME: X Normal ☐ 72-Hour Rush ☐ 24-Hour Rush
TRRP Laboratory Review Checklist ☐ Yes ☐ No

Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Date:	Time:
	10-28-24	16:37		10/28/24	10:27

Bill To: Terracon

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

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

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

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Kramer, Jessica	Carrier Tracking No(s): N/A	COC No: 820-10046.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Jessica.Kramer@et.eurofinsus.com	State of Origin: Texas	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP Texas		Job #: 820-15934-1
Address: 4145 Greenbriar Dr	Due Date Requested: 11/1/2024			Preservation Codes:
City: Stafford	TAT Requested (days): N/A			
State, Zip: TX, 77477				
Phone: 281-240-4200(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: NMAC HUman Health Standard	Project #: 88002338			
Site: N/A	SSOW#: N/A			Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/ (MOD) Custom List	2540C_Calcd	300_ORGFM_28D/ (MOD) Chloride, Fluoride, Sulfate	300_ORGFMS/ Nitrate and Nitrite as N	SM4500_H+/ pH and Temperature	Kolada_01	6020B/3010A (MOD) Metals (19) + U	7470A/7470A_Prep Mercury	8260D/5030C Full List	8082A/3511 Standard PCBs	8270E_QQQ/3511 Polycyclic Aromatic Hydrocarbons (PAHs)	420.4_WP		Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
Windmill (820-15934-1)	10/28/24	10:05 Central	G	Water			X	X												3	
TMW-17 (820-15934-2)	10/28/24	11:30 Central	G	Water				X	X	X	X	X	X	X	X	X	X	X		10	
TMW-24 (820-15934-3)	10/28/24	13:00 Central	G	Water			X	X												2	

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 laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Holly Taylor	8/28/24 1700				
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 10/29/24 1016	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: ID-368 3.0°

Ver 10/10/2024

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

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

Login Number: 15934
List Number: 1
Creator: Guillen, Kyrstin

List Source: Eurofins Lubbock

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

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

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

Login Number: 15934
List Number: 2
Creator: Baker, Jeremiah

List Source: Eurofins Houston
List Creation: 10/29/24 11:53 AM

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

Appendix A

Laboratory Data Package Cover Page - Page 1 of 4

This data package is for Job No. 820-15934-1 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

Laboratory Data Package Cover Page - Page 2 of 4

Laboratory Name: Eurofins Lubbock	LRC Date: 10/31/2024
Project Name: Apache EBDU	Laboratory Job Number: 820-15934-1
Reviewer Name:	

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	**Chain-of-custody (C-O-C)**					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
		Were all departures from standard conditions described in an exception report?	✓				
R2	OI	**Sample and quality control (QC) identification**					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
		Are all laboratory ID numbers cross-referenced to the corresponding 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 bracketed 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 weight basis?			✓		
		Were % moisture (or solids) reported for all soil and sediment samples?			✓		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			✓		
		If required for the project, are TICs reported?			✓		
R4	O	**Surrogate recovery data**					
		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 , including 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 , including prep and cleanup steps?	✓				
		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's capability to 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 MSD?	✓				
		Were MS/MSD analyzed at the appropriate frequency?	✓				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		✓			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 QC limits?	✓				
R9	OI	**Method quantitation limits (MQLs):**					
		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 calibration standard?	✓				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	✓				
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 Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	✓				

Laboratory Data Package Cover Page - Page 3 of 4

Laboratory Name: Eurofins Lubbock	LRC Date: 10/31/2024
Project Name: Apache EBDU	Laboratory Job Number: 820-15934-1
Reviewer Name:	

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	**Initial calibration (ICAL)**					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		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 second source 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-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?			✓		
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	**Mass spectral tuning**					
		Was the appropriate compound for the method used for tuning?			✓		
		Were ion abundance data within the method-required QC limits?			✓		
S4	O	**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) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?	✓				
S6	O	**Dual column confirmation**					
		Did dual column confirmation results meet the method-required QC?			✓		
S7	O	**Tentatively identified compounds (TICs)**					
		If TICs were requested, were the mass spectra and TIC data subject 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 limits specified in the method?			✓		
S10	OI	**Method detection limit (MDL) studies**					
		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 proficiency tests or evaluation studies?	✓				
S12	OI	**Standards documentation**					
		Are all standards used in the analyses NIST-traceable or obtained from 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?	✓				
S16	OI	**Laboratory standard operating procedures (SOPs)**					
		Are laboratory SOPs current and on file for each method performed?	✓				

1. 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);
3. 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
1	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).

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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

See page two for job notes and contact information.

my EOL

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
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Table of Contents

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
U	Analyte was not detected at or above the SDL.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	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
J	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.

Metals

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

Glossary

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

Definitions/Glossary

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

Job ID: 820-16056-1
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

Case Narrative

Client: Terracon Consulting Eng & Scientists
Project: Apache EBDU

Job ID: 820-16056-1

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

Case Narrative

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

Job ID: 820-16056-1 (Continued) 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 Sample Results

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

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

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	mg/L			11/11/24 08:22	1
Bromomethane	<0.00142	U	0.00500	0.00142	mg/L			11/11/24 08:22	1
2-Butanone	<0.00828	U	0.0500	0.00828	mg/L			11/11/24 08:22	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896	mg/L			11/11/24 08:22	1
Chlorobenzene	<0.000455	U	0.00100	0.000455	mg/L			11/11/24 08:22	1
Chloroethane	<0.00198	U	0.0100	0.00198	mg/L			11/11/24 08:22	1
Chloroform	<0.000464	U	0.00100	0.000464	mg/L			11/11/24 08:22	1
Chloromethane	<0.00204	U	0.0100	0.00204	mg/L			11/11/24 08:22	1
4-Chlorotoluene	<0.000386	U	0.00100	0.000386	mg/L			11/11/24 08:22	1
cis-1,2-Dichloroethene	<0.000457	U	0.00100	0.000457	mg/L			11/11/24 08:22	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107	mg/L			11/11/24 08:22	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547	mg/L			11/11/24 08:22	1
1,2-Dibromo-3-Chloropropane	<0.000671	U	0.00500	0.000671	mg/L			11/11/24 08:22	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999	mg/L			11/11/24 08:22	1
1,2-Dichlorobenzene	<0.000429	U	0.00100	0.000429	mg/L			11/11/24 08:22	1
1,3-Dichlorobenzene	<0.000413	U	0.00100	0.000413	mg/L			11/11/24 08:22	1
1,4-Dichlorobenzene	<0.000449	U	0.00100	0.000449	mg/L			11/11/24 08:22	1
Dichlorodifluoromethane	<0.000785	U	0.00100	0.000785	mg/L			11/11/24 08:22	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635	mg/L			11/11/24 08:22	1
1,2-Dichloroethane	<0.000372	U	0.00100	0.000372	mg/L			11/11/24 08:22	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738	mg/L			11/11/24 08:22	1
1,2-Dichloropropane	<0.000556	U	0.00500	0.000556	mg/L			11/11/24 08:22	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514	mg/L			11/11/24 08:22	1
2,2-Dichloropropane	<0.000679	U	0.00500	0.000679	mg/L			11/11/24 08:22	1
1,1-Dichloropropene	<0.000624	U	0.00500	0.000624	mg/L			11/11/24 08:22	1
Ethylbenzene	<0.000385	U	0.00100	0.000385	mg/L			11/11/24 08:22	1
Hexachlorobutadiene	<0.000627	U	0.00500	0.000627	mg/L			11/11/24 08:22	1
Isopropylbenzene	<0.000592	U	0.00100	0.000592	mg/L			11/11/24 08:22	1
Methylene Chloride	<0.00173	U	0.00500	0.00173	mg/L			11/11/24 08:22	1
m,p-Xylenes	<0.00124	U	0.0100	0.00124	mg/L			11/11/24 08:22	1
MTBE	<0.00139	U	0.00500	0.00139	mg/L			11/11/24 08:22	1
Naphthalene	<0.00135	U	0.0100	0.00135	mg/L			11/11/24 08:22	1
n-Butylbenzene	<0.000510	U	0.00100	0.000510	mg/L			11/11/24 08:22	1
N-Propylbenzene	<0.000429	U	0.00100	0.000429	mg/L			11/11/24 08:22	1
o-Xylene	<0.000502	U	0.00100	0.000502	mg/L			11/11/24 08:22	1
p-Cymene (p-Isopropyltoluene)	<0.000676	U	0.00100	0.000676	mg/L			11/11/24 08:22	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468	mg/L			11/11/24 08:22	1
Styrene	<0.000619	U	0.00100	0.000619	mg/L			11/11/24 08:22	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442	mg/L			11/11/24 08:22	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644	mg/L			11/11/24 08:22	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470	mg/L			11/11/24 08:22	1
Tetrachloroethene	<0.000655	U	0.00100	0.000655	mg/L			11/11/24 08:22	1
Toluene	<0.000475	U	0.00100	0.000475	mg/L			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
trans-1,3-Dichloropropene	<0.00127	U	0.00500	0.00127	mg/L			11/11/24 08:22	1

Client Sample Results

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

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

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*

Method: SW846 8270E - Semivolatile Organic Compounds (GC-MS/MS)

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	<0.0000470	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*

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

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 Sample Results

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

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1248	<0.0000469	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*
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 - Anions, Ion Chromatography

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 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

Method: SW846 6020B - Metals (ICP/MS)

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 (CVAA)

Analyte	Result	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

Client Sample Results

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

Job ID: 820-16056-1
SDG: KH247030

Client Sample ID: TMW-17

Lab Sample ID: 820-16056-1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total (EPA 420.4)	0.247		0.200	0.116	mg/L			12/02/24 21:29	20
Cyanide, Total (EPA Kelada 01)	0.686		0.00500	0.00198	mg/L			11/19/24 20:27	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	24900		200	200	mg/L			11/11/24 08:02	1

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0157	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*

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.191	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 Chromatography - 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

Method: EPA 300.0 - Anions, Ion Chromatography

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 Surrogate Recovery (Acceptance Limits)			
		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

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 Surrogate Recovery (Acceptance Limits)		
		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)

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)
		Ba
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)	
		Ba	Y
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
Y = Y Carrier

QC Sample Results

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	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000460	U	0.00100	0.000460	mg/L			11/11/24 08:03	1
Bromobenzene	<0.000486	U	0.00100	0.000486	mg/L			11/11/24 08:03	1
Bromochloromethane	<0.000577	U	0.00100	0.000577	mg/L			11/11/24 08:03	1
Bromodichloromethane	<0.000552	U	0.00100	0.000552	mg/L			11/11/24 08:03	1
Bromoform	<0.000633	U	0.00500	0.000633	mg/L			11/11/24 08:03	1
Bromomethane	<0.00142	U	0.00500	0.00142	mg/L			11/11/24 08:03	1
2-Butanone	<0.00828	U	0.0500	0.00828	mg/L			11/11/24 08:03	1
Carbon tetrachloride	<0.000896	U	0.00500	0.000896	mg/L			11/11/24 08:03	1
Chlorobenzene	<0.000455	U	0.00100	0.000455	mg/L			11/11/24 08:03	1
Chloroethane	<0.00198	U	0.0100	0.00198	mg/L			11/11/24 08:03	1
Chloroform	<0.000464	U	0.00100	0.000464	mg/L			11/11/24 08:03	1
Chloromethane	<0.00204	U	0.0100	0.00204	mg/L			11/11/24 08:03	1
4-Chlorotoluene	<0.000386	U	0.00100	0.000386	mg/L			11/11/24 08:03	1
cis-1,2-Dichloroethene	<0.000457	U	0.00100	0.000457	mg/L			11/11/24 08:03	1
cis-1,3-Dichloropropene	<0.00107	U	0.00500	0.00107	mg/L			11/11/24 08:03	1
Dibromochloromethane	<0.000547	U	0.00500	0.000547	mg/L			11/11/24 08:03	1
1,2-Dibromo-3-Chloropropane	<0.000671	U	0.00500	0.000671	mg/L			11/11/24 08:03	1
1,2-Dibromoethane	<0.000999	U	0.00500	0.000999	mg/L			11/11/24 08:03	1
1,2-Dichlorobenzene	<0.000429	U	0.00100	0.000429	mg/L			11/11/24 08:03	1
1,3-Dichlorobenzene	<0.000413	U	0.00100	0.000413	mg/L			11/11/24 08:03	1
1,4-Dichlorobenzene	<0.000449	U	0.00100	0.000449	mg/L			11/11/24 08:03	1
Dichlorodifluoromethane	<0.000785	U	0.00100	0.000785	mg/L			11/11/24 08:03	1
1,1-Dichloroethane	<0.000635	U	0.00100	0.000635	mg/L			11/11/24 08:03	1
1,2-Dichloroethane	<0.000372	U	0.00100	0.000372	mg/L			11/11/24 08:03	1
1,1-Dichloroethene	<0.000738	U	0.00100	0.000738	mg/L			11/11/24 08:03	1
1,2-Dichloropropane	<0.000556	U	0.00500	0.000556	mg/L			11/11/24 08:03	1
1,3-Dichloropropane	<0.000514	U	0.00500	0.000514	mg/L			11/11/24 08:03	1
2,2-Dichloropropane	<0.000679	U	0.00500	0.000679	mg/L			11/11/24 08:03	1
1,1-Dichloropropene	<0.000624	U	0.00500	0.000624	mg/L			11/11/24 08:03	1
Ethylbenzene	<0.000385	U	0.00100	0.000385	mg/L			11/11/24 08:03	1
Hexachlorobutadiene	<0.000627	U	0.00500	0.000627	mg/L			11/11/24 08:03	1
Isopropylbenzene	<0.000592	U	0.00100	0.000592	mg/L			11/11/24 08:03	1
Methylene Chloride	<0.00173	U	0.00500	0.00173	mg/L			11/11/24 08:03	1
m,p-Xylenes	<0.00124	U	0.0100	0.00124	mg/L			11/11/24 08:03	1
MTBE	<0.00139	U	0.00500	0.00139	mg/L			11/11/24 08:03	1
Naphthalene	<0.00135	U	0.0100	0.00135	mg/L			11/11/24 08:03	1
n-Butylbenzene	<0.000510	U	0.00100	0.000510	mg/L			11/11/24 08:03	1
N-Propylbenzene	<0.000429	U	0.00100	0.000429	mg/L			11/11/24 08:03	1
o-Xylene	<0.000502	U	0.00100	0.000502	mg/L			11/11/24 08:03	1
p-Cymene (p-Isopropyltoluene)	<0.000676	U	0.00100	0.000676	mg/L			11/11/24 08:03	1
sec-Butylbenzene	<0.000468	U	0.00100	0.000468	mg/L			11/11/24 08:03	1
Styrene	<0.000619	U	0.00100	0.000619	mg/L			11/11/24 08:03	1
tert-Butylbenzene	<0.000442	U	0.00100	0.000442	mg/L			11/11/24 08:03	1
1,1,1,2-Tetrachloroethane	<0.000644	U	0.00100	0.000644	mg/L			11/11/24 08:03	1
1,1,2,2-Tetrachloroethane	<0.000470	U	0.00100	0.000470	mg/L			11/11/24 08:03	1
Tetrachloroethene	<0.000655	U	0.00100	0.000655	mg/L			11/11/24 08:03	1
Toluene	<0.000475	U	0.00100	0.000475	mg/L			11/11/24 08:03	1
trans-1,2-Dichloroethene	<0.000368	U	0.00100	0.000368	mg/L			11/11/24 08:03	1

QC Sample Results

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

Analyte	MB Result	MB 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	1
Trichlorofluoromethane	<0.000560	U	0.00100	0.000560	mg/L			11/11/24 08:03	1
1,2,3-Trichloropropane	<0.000470	U	0.00100	0.000470	mg/L			11/11/24 08:03	1
1,2,4-Trimethylbenzene	<0.000417	U	0.00100	0.000417	mg/L			11/11/24 08:03	1
1,3,5-Trimethylbenzene	<0.000411	U	0.00100	0.000411	mg/L			11/11/24 08:03	1
Vinyl chloride	<0.000428	U	0.00200	0.000428	mg/L			11/11/24 08:03	1
Xylenes, Total	<0.00124	U	0.0100	0.00124	mg/L			11/11/24 08:03	1

Surrogate	*MB %Recovery*	*MB 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

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

QC Sample Results

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	0.0500	0.05713		mg/L		114	50 - 150
1,2-Dichloropropane	0.0500	0.05331		mg/L		107	74 - 125
1,3-Dichloropropane	0.0500	0.04938		mg/L		99	75 - 125
2,2-Dichloropropane	0.0500	0.05613		mg/L		112	75 - 125
1,1-Dichloropropene	0.0500	0.05427		mg/L		109	75 - 125
Ethylbenzene	0.0500	0.05134		mg/L		103	75 - 125
Hexachlorobutadiene	0.0500	0.04775		mg/L		96	75 - 125
Isopropylbenzene	0.0500	0.05155		mg/L		103	75 - 125
Methylene Chloride	0.0500	0.05105		mg/L		102	71 - 125
m,p-Xylenes	0.0500	0.05109		mg/L		102	75 - 125
MTBE	0.0500	0.05199		mg/L		104	65 - 135
Naphthalene	0.0500	0.04737		mg/L		95	70 - 130
n-Butylbenzene	0.0500	0.04938		mg/L		99	75 - 125
N-Propylbenzene	0.0500	0.04993		mg/L		100	75 - 125
o-Xylene	0.0500	0.05098		mg/L		102	75 - 125
p-Cymene (p-Isopropyltoluene)	0.0500	0.04963		mg/L		99	75 - 125
sec-Butylbenzene	0.0500	0.04908		mg/L		98	75 - 125
Styrene	0.0500	0.05148		mg/L		103	75 - 125
tert-Butylbenzene	0.0500	0.04875		mg/L		97	75 - 125
1,1,1,2-Tetrachloroethane	0.0500	0.04926		mg/L		99	72 - 125
1,1,2,2-Tetrachloroethane	0.0500	0.04775		mg/L		96	74 - 125
Tetrachloroethene	0.0500	0.04883		mg/L		98	71 - 125
Toluene	0.0500	0.04957		mg/L		99	75 - 130
trans-1,2-Dichloroethene	0.0500	0.05278		mg/L		106	75 - 125
trans-1,3-Dichloropropene	0.0500	0.05077		mg/L		102	66 - 125
1,2,3-Trichlorobenzene	0.0500	0.04649		mg/L		93	75 - 137
1,2,4-Trichlorobenzene	0.0500	0.04628		mg/L		93	75 - 135
1,1,1-Trichloroethane	0.0500	0.05395		mg/L		108	70 - 130
1,1,2-Trichloroethane	0.0500	0.04907		mg/L		98	75 - 130
Trichloroethene	0.0500	0.05030		mg/L		101	75 - 135
Trichlorofluoromethane	0.0500	0.05816		mg/L		116	60 - 140
1,2,3-Trichloropropane	0.0500	0.04662		mg/L		93	75 - 125
1,2,4-Trimethylbenzene	0.0500	0.04958		mg/L		99	75 - 125
1,3,5-Trimethylbenzene	0.0500	0.04870		mg/L		97	60 - 140
Vinyl chloride	0.0500	0.05387		mg/L		108	60 - 140

Surrogate	*LCS %Recovery*	*LCS 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

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

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

QC Sample Results

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	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		mg/L		97	75 - 125	1	25
N-Propylbenzene	0.0500	0.04964		mg/L		99	75 - 125	1	25
o-Xylene	0.0500	0.05125		mg/L		102	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	0	25
tert-Butylbenzene	0.0500	0.04877		mg/L		98	75 - 125	0	25
1,1,1,2-Tetrachloroethane	0.0500	0.04992		mg/L		100	72 - 125	1	25
1,1,2,2-Tetrachloroethane	0.0500	0.05211		mg/L		104	74 - 125	9	25
Tetrachloroethene	0.0500	0.04996		mg/L		100	71 - 125	2	25
Toluene	0.0500	0.05035		mg/L		101	75 - 130	2	25
trans-1,2-Dichloroethene	0.0500	0.05187		mg/L		104	75 - 125	2	25
trans-1,3-Dichloropropene	0.0500	0.05210		mg/L		104	66 - 125	3	25
1,2,3-Trichlorobenzene	0.0500	0.04909		mg/L		98	75 - 137	5	25

QC Sample Results

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
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

Analyte	MB Result	MB 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

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*107*		*43 - 130*	*11/06/24 15:20*	*11/08/24 20:08*	*1*
Nitrobenzene-d5 (Surr)	*120*		*37 - 133*	*11/06/24 15:20*	*11/08/24 20:08*	*1*
p-Terphenyl-d14 (Surr)	*81*		*47 - 130*	*11/06/24 15:20*	*11/08/24 20:08*	*1*

QC Sample Results

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

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*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
Analysis Batch: 198625

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 198173

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	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

QC Sample Results

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

Surrogate	LCSD %Recovery	LCSD 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

Analyte	MB Result	MB 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

Surrogate	MB %Recovery	MB 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

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

Surrogate	LCS %Recovery	LCS 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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	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

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

QC Sample Results

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U	0.500	0.250	mg/L			11/06/24 10:38	1
Fluoride	<0.100	U	0.500	0.100	mg/L			11/06/24 10:38	1
Sulfate	<0.200	U	0.500	0.200	mg/L			11/06/24 10:38	1

Lab Sample ID: MB 860-198125/47
Matrix: Water
Analysis Batch: 198125

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.250	U	0.500	0.250	mg/L			11/06/24 15:21	1
Fluoride	<0.100	U	0.500	0.100	mg/L			11/06/24 15:21	1
Sulfate	<0.200	U	0.500	0.200	mg/L			11/06/24 15:21	1

Lab Sample ID: LCS 860-198125/4
Matrix: Water
Analysis Batch: 198125

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.31		mg/L		103	90 - 110
Fluoride	10.0	10.16		mg/L		102	90 - 110
Sulfate	10.0	10.35		mg/L		103	90 - 110

Lab Sample ID: LCS 860-198125/48
Matrix: Water
Analysis Batch: 198125

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.39		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
Matrix: Water
Analysis Batch: 198125

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.39		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
Matrix: Water
Analysis Batch: 198125

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.33		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

QC Sample Results

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
Matrix: Water
Analysis Batch: 198125

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.5647		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
Matrix: Water
Analysis Batch: 198126

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

Analyte	MB Result	MB 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

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

Analyte	MB Result	MB 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
Matrix: Water
Analysis Batch: 198126

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%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
Matrix: Water
Analysis Batch: 198126

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%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
Matrix: Water
Analysis Batch: 198126

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

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

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

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

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

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QC Sample Results

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
Analysis Batch: 198126

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrite as N	10.0	9.899		mg/L		99	90 - 110	0	20

Lab Sample ID: LLCS 860-198126/6
Matrix: Water
Analysis Batch: 198126

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	0.100	0.1127		mg/L		113	50 - 150
Nitrite as N	0.100	0.08785	J	mg/L		88	50 - 150

Lab Sample ID: MB 860-199248/13
Matrix: Water
Analysis Batch: 199248

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

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

Lab Sample ID: LCS 860-199248/14
Matrix: Water
Analysis Batch: 199248

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

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

Lab Sample ID: LCSD 860-199248/15
Matrix: Water
Analysis Batch: 199248

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	9.929		mg/L		99	90 - 110	3	20

Lab Sample ID: LLCS 860-199248/17
Matrix: Water
Analysis Batch: 199248

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

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

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
Prep Batch: 198887

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.00549	U	0.0200	0.00549	mg/L		11/11/24 03:42	11/11/24 14:34	1
Antimony	<0.000750	U	0.00200	0.000750	mg/L		11/11/24 03:42	11/11/24 14:34	1
Arsenic	<0.000690	U	0.00400	0.000690	mg/L		11/11/24 03:42	11/11/24 14:34	1
Barium	<0.00134	U	0.00400	0.00134	mg/L		11/11/24 03:42	11/11/24 14:34	1
Beryllium	<0.000271	U	0.00200	0.000271	mg/L		11/11/24 03:42	11/11/24 14:34	1

QC Sample Results

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: MB 860-198887/1-A
Matrix: Water
Analysis Batch: 199266

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 198887

Analyte	MB Result	MB 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

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	0.500	0.5035		mg/L		101	80 - 120	1	20
Antimony	0.100	0.1001		mg/L		100	80 - 120	1	20

Eurofins Lubbock

QC Sample Results

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**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	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 — **Prep Batch: 199408**

Analyte	MB Result	MB 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 — **Prep Type: Total/NA**
Analysis Batch: 199649 — **Prep Batch: 199408**

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

Lab Sample ID: LCSD 860-199408/12-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 199649 — **Prep Batch: 199408**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.00580	U	0.0100	0.00580	mg/L			11/25/24 18:37	1

QC Sample Results

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
Matrix: Water
Analysis Batch: 202173

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

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

Lab Sample ID: LCSD 860-202173/10
Matrix: Water
Analysis Batch: 202173

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenols, Total	0.100	0.1047		mg/L		105	90 - 110	3	20

Lab Sample ID: LLCS 860-202173/11
Matrix: Water
Analysis Batch: 202173

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenols, Total	0.0100	0.01420		mg/L		142	50 - 150

Lab Sample ID: MB 860-202485/43
Matrix: Water
Analysis Batch: 202485

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.00580	U	0.0100	0.00580	mg/L			11/26/24 20:41	1

Lab Sample ID: LCS 860-202485/44
Matrix: Water
Analysis Batch: 202485

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

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

Lab Sample ID: LCSD 860-202485/45
Matrix: Water
Analysis Batch: 202485

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenols, Total	0.100	0.1008		mg/L		101	90 - 110	3	20

Lab Sample ID: MB 860-203049/32
Matrix: Water
Analysis Batch: 203049

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.00580	U	0.0100	0.00580	mg/L			12/02/24 19:58	1

Lab Sample ID: LCS 860-203049/33
Matrix: Water
Analysis Batch: 203049

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

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

QC Sample Results

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
Matrix: Water
Analysis Batch: 203049

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenols, Total			0.100	0.1020		mg/L		102	90 - 110	1	20

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

Lab Sample ID: MB 860-200443/24
Matrix: Water
Analysis Batch: 200443

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.00198	U	0.00500	0.00198	mg/L			11/15/24 18:19	1

Lab Sample ID: LCS 860-200443/26
Matrix: Water
Analysis Batch: 200443

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total			0.100	0.1029		mg/L		103	90 - 110		

Lab Sample ID: LCSD 860-200443/27
Matrix: Water
Analysis Batch: 200443

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total			0.100	0.1100		mg/L		110	90 - 110	7	20

Lab Sample ID: LLCS 860-200443/25
Matrix: Water
Analysis Batch: 200443

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

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

Lab Sample ID: MB 860-200787/24
Matrix: Water
Analysis Batch: 200787

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.00198	U	0.00500	0.00198	mg/L			11/19/24 14:48	1

Lab Sample ID: LCS 860-200787/26
Matrix: Water
Analysis Batch: 200787

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

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

QC Sample Results

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**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 200787

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%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**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 201327

Analyte	MB Result	MB 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**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 201327

Analyte	MB Result	MB 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**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 201327

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.100	0.1025		mg/L		102	90 - 110

Lab Sample ID: LCS 860-201327/23 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 201327

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cyanide, Total	0.100	0.09841		mg/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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cyanide, Total	0.100	0.09598		mg/L		96	90 - 110	2	20

Lab Sample ID: LLCS 860-201327/22 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 201327

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

QC Sample Results

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

Lab Sample ID: LLCS 860-201327/9 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 201327

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%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**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 201327

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%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 — **Prep Type: Total/NA**
Analysis Batch: 201327

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Cyanide, Total	0.0129	J	0.500	0.4844		mg/L		94	90 - 110		

Lab Sample ID: 820-16056-1 MSD — **Client Sample ID: TMW-17**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 201327

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

Lab Sample ID: 820-16056-1 MSD — **Client Sample ID: TMW-17**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 201327

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	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**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 198917

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00	5.00	mg/L			11/11/24 08:02	1

Lab Sample ID: LCS 860-198917/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 198917

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

QC Sample Results

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
Matrix: Water
Analysis Batch: 198917

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

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

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-687519/1-A
Matrix: Water
Analysis Batch: 691378

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 687519

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (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

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.4*		*30 - 110*	*11/08/24 08:24*	*12/02/24 15:32*	*1*

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

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	9.58	8.593		0.927	1.00	0.107	pCi/L	90	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*97.5*		*30 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-687520/1-A
Matrix: Water
Analysis Batch: 690405

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 687520

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
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

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.4*		*30 - 110*	*11/08/24 08:26*	*11/25/24 11:49*	*1*
Y Carrier	*81.9*		*30 - 110*	*11/08/24 08:26*	*11/25/24 11:49*	*1*

Lab Sample ID: LCS 160-687520/2-A
Matrix: Water
Analysis Batch: 690405

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 687520

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

QC Sample Results

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

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 687520

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

QC Association Summary

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	
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	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16056-1	TMW-17	Total/NA	Water	8082A	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	
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	

QC Association Summary

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 Batch
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

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

QC Association Summary

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	

QC Association Summary

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	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16056-1	TMW-17	Total/NA	Water	PrecSep-21	
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	

Lab Chronicle

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

Job ID: 820-16056-1
SDG: KH247030

Client Sample ID: TMW-17

Lab Sample ID: 820-16056-1

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

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared 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

Lab Sample ID: 820-16056-2

Date Collected: 11/05/24 10:37
Matrix: Water
Date Received: 11/05/24 15:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0	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

Lab Sample ID: 820-16056-3

Date Collected: 11/05/24 11:59
Matrix: Water
Date Received: 11/05/24 15:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			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

Accreditation/Certification Summary

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

Job ID: 820-16056-1
SDG: KH247030

Laboratory: Eurofins Houston

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

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

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

Analysis Method	Prep Method	Matrix	Analyte
420.4		Water	Phenols, Total
6020B	3010A	Water	Uranium
8270E	3511	Water	1-Methylnaphthalene
SM 4500 H+ B		Water	Temperature

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

* 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

None = None

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

Loc: 820
16056

820-16056 Chain of Custody

CHAIN O

Terracon

Laboratory: Xenco
Address: 6701 Aberdeen
Lubbock, Texas 79424
Phone: 806 787 0744
Contact:

Office Location: Lubbock
Project Manager: Joseph Guesnier
Sampler's Name: Jack Kirkpatrick
Sampler's Signature:

Project Number: KH247030
Project Name: Apache EBDU

ANALYSIS REQUESTED

DUE DATE:
TEMP OF COOLER WHEN RECEIVED (°C): 2.9/3.1
Page 1 of 1

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth (FT)	End Depth (FT)	No. Type of Containers: 250 ml Poly	1L Poly	250 ml Amber	40 ml VOA unpreserved	40 ml VOA preserved	60 ml VOA	Total Dissolved Solids (TDS)	Chloride (EPA Method 300)	NMAC Human Health Standards	Lab Sample ID
W	11/5/24	0840		X	TMW-17			3	4	1	4	3	2	X	X	X	
W	11/5/24	1037		X	TMW-19			1	1					X	X		
W	11/5/24	1159		X	TMW-24			1	1					X	X		

TURNAROUND TIME: [X] Normal [ ] 72-Hour Rush [ ] 24-Hour Rush
TRRP Laboratory Review Checklist: [ ] Yes [ ] No

Relinquished by (Signature)	Date	Time	Received by (Signature)	Date	Time
	11/5/24	1552			
				11/5/24	1552

Bill To: Terracon

e-mail results to:
jack.kirkpatrick@terracon.com
john.grams@terracon.com
joseph.guesnier@terracon.com

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

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

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Kramer, Jessica	Carrier Tracking No(s): N/A	COC No: 820-10078.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Jessica.Kramer@et.eurofinsus.com	State of Origin: Texas	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas		Job #: 820-16056-1
Address: 13715 Rider Trail North,	Due Date Requested: 11/12/2024	Analysis Requested		Preservation Codes:
City: Earth City	TAT Requested (days): N/A			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: NMAC HUman Health Standard	Project #: 88002338			
Site: N/A	SSOW#: N/A			Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
TMW-17 (820-16056-1)	11/5/24	08:40 Central	G	Water			X	X	2	

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 laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		11/5/24 17:00			0845 NOV 07 2024	ETA SAL
2	Relinquished by:	Date/Time:	Company	Received by: Cheyenne Forrest	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

eurofins
Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Kramer, Jessica	Carrier Tracking No(s): N/A	COC No: 820-10077 1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Jessica.Kramer@et.eurofinsus.com	State of Origin: Texas	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP Texas		Job #: 820-16056-1
Address: 4145 Greenbriar Dr	Due Date Requested: 11/11/2024			Preservation Codes:
City: Stafford	TAT Requested (days): N/A			
State, Zip: TX, 77477				
Phone: 281-240-4200(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: NMAC HUman Health Standard	Project #: 88002338			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Wewater, Sesolid, Omwastefoil, BT=Tissue, AnAir)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/ (MOD) Chloride, Fluoride, Sulfate	300_ORGFMS/ Nitrate and Nitrite as N	2540C_Calcd	SM4500_H+/ pH and Temperature	Kelada_01	6020B/3010A (MOD) Metals (19) + U	7470A/7470A_Prep Mercury	8260D/5030C Full List	8082A/3511 Standard PCBs	8270E_QQQ/3511 Polycyclic Aromatic Hydrocarbons (PAHs)	420.4_NP			Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
TMW-17 (820-16056-1)	11/5/24	08:40 Central	G	Water			X	X	X	X	X	X	X	X	X	X	X			15	
TMW-19 (820-16056-2)	11/5/24	10:37 Central	G	Water			X		X											2	
TMW-24 (820-16056-3)	11/5/24	11:59 Central	G	Water			X		X											2	

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 laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:			
Relinquished by:	Date/Time: 11/5/24 17:00	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 11/6/24 0930	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: 12368 2.5°

Ver: 10/10/2024

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

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Teel, Brianna	Carrier Tracking No(s): N/A	COC No: 820-10074.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Brianna.Teel@et.eurofinsus.com	State of Origin: Texas	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP Texas		Job #: 820-16028-1
Address: 4145 Greenbriar Dr	Due Date Requested: 11/12/2024			
City: Stafford	TAT Requested (days): N/A			
State, Zip: TX, 77477				
Phone: 281-240-4200(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: 1030 Pecan	Project #: 82000181			
Site: N/A	SSOW#: N/A			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	25400/ TSS by SM2540D	SM4500_H+/ pH and Temperature	SM5210B_Calc/BOD_Prep BOD	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
1030 Pecan (820-16028-1)	11/5/24	08:50 Central	G	Water			X	X	X	3	

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 laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:			
Relinquished by:	Date/Time: 11/5/24 17:00	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 11/6/24 0426	Company	

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: IR368 2.5°

Ver 10/10/2024

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

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

Login Number: 16056
List Number: 1
Creator: Guillen, Kyrstin

List Source: Eurofins Lubbock

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

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

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

Login Number: 16056
List Number: 2
Creator: Torrez, Lisandra

List Source: Eurofins Houston
List Creation: 11/07/24 08:01 AM

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 <6mm (1/4").	True	

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

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

Login Number: 16056
List Number: 3
Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis
List Creation: 11/07/24 12:34 PM

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

Detection Check 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**
Prep Method: 5030C-Purge and Trap
Instrument: A292 **Detector: MSD/0** **Column: DB-624**

Analyte	Spike Added	Result	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	0.000457	09/13/2024	860-187060
cis-1,3-Dichloropropene	0.00600	0.00492	J	mg/L	0.00500	0.00107	09/13/2024	860-187060
Dibromochloromethane	0.00400	0.00359	J	mg/L	0.00500	0.000547	09/13/2024	860-187060
1,2-Dibromo-3-Chloropropane	0.00400	0.00349	J	mg/L	0.00500	0.000671	09/13/2024	860-187060
1,2-Dibromoethane	0.00400	0.00356	J	mg/L	0.00500	0.000999	09/13/2024	860-187060
Bromobenzene	0.00100	0.000931	J	mg/L	0.00100	0.000486	09/13/2024	860-187060
1,2-Dichlorobenzene	0.00100	0.00101		mg/L	0.00100	0.000429	09/13/2024	860-187060
1,3-Dichlorobenzene	0.00100	0.000939	J	mg/L	0.00100	0.000413	09/13/2024	860-187060
1,4-Dichlorobenzene	0.00100	0.00101		mg/L	0.00100	0.000449	09/13/2024	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	0.00487	J	mg/L	0.00500	0.00175	09/13/2024	860-187060
1,1,1-Trichloroethane	0.00600	0.00482	J	mg/L	0.00500	0.000585	09/13/2024	860-187060

Detection Check 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 (Continued)

Matrix: Water **Prep Type: Total/NA**
Prep Method: 5030C-Purge and Trap
Instrument: A292 **Detector: MSD/0** **Column: DB-624**

Analyte	Spike 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)

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

Analyte	Spike 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
Instrument: A328 **Detector: ECD/0** **Column: RTX-CLP1**

Analyte	Spike 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

Detection Check Summary

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**

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

Matrix: Water **Prep Type: Total/NA**
Prep Method: N/A
Instrument: a401 **Detector: IC/0** **Column: AS-18**

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

Method: 6020B - Metals (ICP/MS)

Matrix: Water **Prep Type: Total/NA**
Prep Method: 3010A-Preparation, Total Metals
Instrument: A311 **Detector: MSD/0**

Analyte	Spike 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**

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

Detection Check Summary

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**

Analyte	Spike Added	Result	Qualifier	Unit	RL	MDL	Analysis Date	Analysis Batch
Cyanide, Total	0.00250	0.00240	J	mg/L	0.00500	0.00198	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

Laboratory Data Package Cover Page - Page 2 of 4

Laboratory Name: Eurofins Lubbock	LRC Date: 12/05/2024
Project Name: Apache EBDU	Laboratory Job Number: 820-16056-1
Reviewer Name:	

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	**Chain-of-custody (C-O-C)**					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
		Were all departures from standard conditions described in an exception report?	✓				
R2	OI	**Sample and quality control (QC) identification**					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
		Are all laboratory ID numbers cross-referenced to the corresponding 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 bracketed 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 weight basis?			✓		
		Were % moisture (or solids) reported for all soil and sediment samples?			✓		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			✓		
		If required for the project, are TICs reported?			✓		
R4	O	**Surrogate recovery data**					
		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 , including 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 , including prep and cleanup steps?	✓				
		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's capability to 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 MSD?	✓				
		Were MS/MSD analyzed at the appropriate frequency?	✓				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		✓			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 QC limits?	✓				
R9	OI	**Method quantitation limits (MQLs):**					
		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 calibration standard?		✓			2
		Are unadjusted MQLs and DCSs included in the laboratory data package?	✓				
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?		✓			3
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	✓				

Laboratory Data Package Cover Page - Page 3 of 4

Laboratory Name: Eurofins Lubbock	LRC Date: 12/05/2024
Project Name: Apache EBDU	Laboratory Job Number: 820-16056-1
Reviewer Name:	

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	**Initial calibration (ICAL)**					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		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 second source 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-required 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	O	**Mass spectral tuning**					
		Was the appropriate compound for the method used for tuning?	✓				
		Were ion abundance data within the method-required QC limits?	✓				
S4	O	**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) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?	✓				
S6	O	**Dual column confirmation**					
		Did dual column confirmation results meet the method-required QC?	✓				
S7	O	**Tentatively identified compounds (TICs)**					
		If TICs were requested, were the mass spectra and TIC data subject 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 limits specified in the method?	✓				
S10	OI	**Method detection limit (MDL) studies**					
		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 proficiency tests or evaluation studies?	✓				
S12	OI	**Standards documentation**					
		Are all standards used in the analyses NIST-traceable or obtained from 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?	✓				
S16	OI	**Laboratory standard operating procedures (SOPs)**					
		Are laboratory SOPs current and on file for each method performed?	✓				

1. 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);
3. 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 duplicate (MS/MSD) recoveries for analytical batch 860-198125 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. Method 6020B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 860-198887 and analytical batch 860-199266 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 duplicate (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 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 420.4: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-202173 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. Method 420.4: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-203049 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-198126 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.
2	Method Kelada 01: Reporting Limit - Estimated; Outside Calibration Range : Due to the sample interference and nature of the 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.
3	Method 420.4: 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 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. Method 300.0: 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 300.0: 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.
4	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). 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.

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

eurofins | 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

See page two for job notes and contact information.

Eurofins Lubbock

Job Notes

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

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

Authorization

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

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

Laboratory Job ID: 820-16082-1

Table of Contents

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists Job ID: 820-16082-1
Project/Site: Apache EBDU

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.

Metals

Qualifier	Qualifier Description
U	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
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Terracon Consulting Eng & Scientists
Project: Apache EBDU

Job ID: 820-16082-1

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.

Client Sample Results

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

Job ID: 820-16082-1

Client Sample ID: TMW-1

Lab Sample ID: 820-16082-1
Matrix: Water
Date Collected: 11/06/24 09:51
Date Received: 11/06/24 16:04

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	128		0.500	0.250	mg/L			11/13/24 08:30	1

Method: SW846 6020B - Metals (ICP/MS)

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

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	183		0.500	0.250	mg/L			11/13/24 08:43	1

Method: SW846 6020B - Metals (ICP/MS)

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
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
Matrix: Water
Date Collected: 11/06/24 11:35
Date Received: 11/06/24 16:04

Method: EPA 300.0 - Anions, Ion Chromatography

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 (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.0484		0.00400	0.00134	mg/L		11/11/24 03:42	11/11/24 16:36	1

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

QC Sample Results

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
Matrix: Water
Analysis Batch: 199248

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

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

Lab Sample ID: MB 860-199248/63
Matrix: Water
Analysis Batch: 199248

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

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

Lab Sample ID: LCS 860-199248/14
Matrix: Water
Analysis Batch: 199248

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

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

Lab Sample ID: LCS 860-199248/64
Matrix: Water
Analysis Batch: 199248

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

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

Lab Sample ID: LCSD 860-199248/15
Matrix: Water
Analysis Batch: 199248

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	9.929		mg/L		99	90 - 110	3	20

Lab Sample ID: LCSD 860-199248/65
Matrix: Water
Analysis Batch: 199248

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

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

Lab Sample ID: LLCS 860-199248/17
Matrix: Water
Analysis Batch: 199248

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

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

QC Sample Results

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
Prep Batch: 198887

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00134	U	0.00400	0.00134	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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.100	0.09831		mg/L		98	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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	0.100	0.09890		mg/L		99	80 - 120	1	20

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

Lab Sample ID: MB 860-198514/1
Matrix: Water
Analysis Batch: 198514

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00	5.00	mg/L			11/08/24 07:33	1

Lab Sample ID: LCS 860-198514/2
Matrix: Water
Analysis Batch: 198514

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	936.0		mg/L		94	80 - 120

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 Batch
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	
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	

Lab Chronicle

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

Job ID: 820-16082-1

Client Sample ID: TMW-1

Lab Sample ID: 820-16082-1

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

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			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

Lab Sample ID: 820-16082-2

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

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			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

Client Sample ID: TMW-21

Lab Sample ID: 820-16082-3

Date Collected: 11/06/24 11:35
Date Received: 11/06/24 16:04

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			199248	11/13/24 08:56	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 16:36	DP	EET HOU
Total/NA	Analysis	SM 2540C		1	100 mL	200 mL	198514	11/08/24 07:33	TR	EET HOU

Laboratory References:

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

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists Job ID: 820-16082-1
Project/Site: Apache EBDU

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

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

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

Loc: 820
16082

820-16082 Chain of Custody

Terracon

Laboratory: Xenco
Address: 6701 Aberdeen
Lubbock, Texas 79424
Phone: 806 7870744
Contact:

Office Location: Lubbock
Project Manager: Joseph Guesnier
Sampler's Name: Jack Kirkpatrick
Sampler's Signature:

Project Number: KH247030
Project Name: Apache EBDU

ANALYSIS REQUESTED

DUE DATE:
TEMP OF COOLER WHEN RECEIVED (°C): -0.1/0.1
Page 1 of 1

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth (FT)	End Depth (FT)	No. Type of Containers: 250 ml Poly	1L Poly	250 ml Amber	40 ml VOA unpreserved	40 ml VOA preserved	60 ml VOA	Total Dissolved Solids (TDS)	Chloride (EPA Method 300)	NMAC Human Health Standards	Barium				Lab Sample ID
W	11/6/24	0951		X	TMW-1			1	1					X	X		X				
W	11/6/24	1018		X	TMW-3			1	1					X	X		X				
W	11/6/24	1135		X	TMW-21			1	1					X	X		X				

TURNAROUND TIME: X Normal ☐ 72-Hour Rush ☐ 24-Hour Rush
TRRP Laboratory Review Checklist: ☐ Yes ☐ No

Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Date:	Time:
	11/6/24	1604		11/6/24	10:04

Bill To: Terracon

e-mail results to:
jack.kirkpatrick@terracon.com
john.grams@terracon.com
joseph.guesnier@terracon.com

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

Login Sample Receipt Checklist

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	

Login Sample Receipt Checklist

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

Login Number: 16082 **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 <6mm (1/4").	True	