TETRA TECH

REVIEWED
By Mike Buchanan at 1:19 pm, Jun 06, 2024

2023 GROUNDWATER SAMPLING REPORT

E.M. ELLIOT TANK BATTERY
LEA COUNTY, NEW MEXICO
NMOCD ABATEMENT PLAN (AP-088)
INCIDENT # NRM2103338654

Prepared for:

JR OIL, LTD. CO.

PO BOX 2975
HOBBS, NEW MEXICO 88241

Prepared by:

Tetra Tech

901 West Wall Street, Suite 100
Midland, Texas 79701
(432) 682-4559
Fax (432) 682-3946

March 7, 2024

complex world CLEAR SOLUTIONS-

Review of the 2023 Groundwater Sampling Report for E.M. Elliot Tank Battery: Content Satisfactory
1. BTEX has been demonstrated to be well below the NM WQCC human health standards in Title 20 for more than eight consecutive quarters and may be suspended from sampling analysis.
2. JR Oil may reduce groundwater sampling to a semi-annual basis and may also reduce pumping MW-1 to a semi-annual event.
3. Submit the 2024 Groundwater Sampling Report by April 1, 2025. If an extension is required please notify the OCD in advance for approval.

March 7, 2024

Mr. Dylan Rose-Coss
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: 2023 Groundwater Sampling Report
J.R Oil LTD
E. M. Elliott Tank Battery,
Section 22, Township 22 South, Range 37 East,
Lea County, New Mexico.
NMOCD Abatement Plan (AP-088)
Incident # NRM2103338654

Mr. Rose-Coss,

This report summarizes the results of the quarterly groundwater sampling and quarterly pumping events for monitor well MW-1R which occurred from March through December 2023 for the E. M. Elliott Tank Battery (Site). The Site is located in Lea County, Section 22, Township 22 South, Range 37 East, approximately 4 miles south of Eunice, New Mexico. The GPS coordinates for the Site are 32.38266°N, 103.15517°W. The facility was acquired by JR Oil LTD (JR Oil) in March of 2021. Prior to JR Oil, the facility was previously operated by Oxy USA, Inc. (Oxy), Plains Exploration and Production (PXP), Pogo Producing Company (Pogo), and Latigo Petroleum, Inc. (Latigo). The Site location is shown on **Figures 1 and 2**.

FACILITY BACKGROUND

As part of a due diligence assessment for Pogo, the Site was inspected, and soil sampling was performed to investigate areas where visual evidence of historic spills was observed in 2006.

Four impacted areas were investigated north and south of the facility and inside the containment dike. One hand auger boring was installed in an area measuring 25 ft x 30 ft'. One auger boring was placed in the second impacted area measuring 10 ft x 10 ft. Two auger borings were placed in a third impacted area measuring 6ft x 15ft. The auger borings could only be advanced to depths of 1.0 ft-1.5 ft below ground surface (bgs) due to the presence of a dense caliche layer. Elevated chloride concentrations were detected in soil samples collected from three of the six auger borings and total petroleum hydrocarbon (TPH) concentrations were detected above the New Mexico Oil Conservation Division (OCD) Recommended Remedial Action Level (RRAL) of 5,000 milligrams per kilogram from soil samples collected from all six of the auger borings. Auger borings AH-1, AH-4 and AH-6 indicated TPH concentrations above the RRAL on the 0 ft -1.0 ft sample depth, which decreased to below the RRAL in the 1.0 ft'-1.5' sample depths. Access was restricted inside the

dike; therefore, the borehole BH-1 was drilled just outside the dike, close to auger borings AH-1, AH-2 and AH-5. In borehole BH-1, the TPH concentrations declined to below the RRAL in the 30 ft'-32 ft sample depth.

Based on the results, borehole BH-1 was converted to a temporary 2-inch monitor well (MW-1). Groundwater was encountered at approximately 70 feet below the top of casing (TOC). On September 25, 2006 and May 15, 2007, the temporary well was purged and groundwater was sampled for analyses of chlorides and benzene, toluene, ethylbenzene and xylenes (BTEX). Chloride concentrations exceeded New Mexico Water Quality Control Commission (NMWQCC) standard of 250 milligrams per liter (mg/L) while BTEX concentrations were below the NMWQCC standards.

In accordance with the New Mexico Oil Conservation Division (NMOCD) of New Mexico Rule 116 the NMOCD director was notified in writing on June 25, 2007, of groundwater impact at the Site. The OCD responded with a request for a Stage 1 Abatement Plan for the facility.

On July 9, 2008, a Stage 1 Abatement Plan addressing the soil and groundwater impacts at the Site was submitted to the NMOCD-Santa Fe, New Mexico office. The Stage 1 Abatement Plan concluded that chloride concentrations in groundwater had not been delineated and that no BTEX constituents exceeded NMWQCC standards. No receptors were found in the vicinity of the Site. Quarterly groundwater gauging and sampling was proposed to commence during the third quarter of 2008. Additional monitor wells were proposed to delineate the chloride impacts to groundwater.

On September 12, 2011, monitor wells MW-2 and MW-3 were installed down gradient and up gradient, respectively, from monitor well MW-1. Monitor wells MW-4 and MW-5 were installed on September 7, 2016 for cross gradient delineation. On September 8, 2016, monitor well MW-1R was drilled as a replacement for monitor well MW-1. Monitor well MW-1R was constructed as a 4-inch diameter well for potential use as a groundwater recovery well. Monitor well MW-1 was plugged on September 12, 2016.

The sampling and gauging at the Site were reinitiated in July 2022 during the transition of the Site from Oxy to JR Oil. Four of the monitor wells MW-2 through MW-5 were sampled during the July 2022 sampling event, and all five monitor wells at the site MW-1R, MW-2, MW-3, MW-4, and MW-5 were purged. All five monitor wells were purged and sampled during the December 2022 sampling events. The purge water total for 2022 was approximately 84 gallons. No phase separated hydrocarbons (PSH) were observed in any of the monitor wells.

2023 GAUGING AND MONITOR WELL SAMPLING

The gauging and sampling activities for the year 2023 included all five monitor wells MW-1R, MW-2, MW-3, MW-4, and MW-5 on March 14, May 15, October 9, 2023, and December 29, 2023. Approximately three well casing volumes were purged from each well during each sampling event and stored onsite in a drum for proper disposal. The purge water total for 2023 is approximately 178 gallons. During each groundwater sampling event, the monitor wells were gauged with an electronic water level meter. No PSH was observed in any of the monitor wells.

Based on the gauging data from all four sampling events, the groundwater flow direction was generally to the southeast with an average hydraulic gradient of 0.00198 ft / ft. The gauging data reported for monitor well MW-4 for the May 2023 gauging event was incongruent with all data ever observed at the site and was not considered for the potentiometric analysis for that date. The gauging data is summarized in **Table 1** and potentiometric surface maps for each of the quarterly sampling events in 2023 are included as **Figure 4** through **Figure 7**.

During each groundwater sampling event, the monitor wells were purged to remove approximately three well casing volumes of water using disposable rope or twine with a new polyethylene bailer for each monitor well. The sample bottles were filled directly from the bailers. The sample bottles were placed on ice and delivered to Eurofins Laboratory in Midland, Texas. All samples were analyzed for BTEX by EPA Method SW8260 and chlorides by EPA Method E300.

The analytical results indicate that BTEX concentrations were below NMWQCC standards during all four of the sampling events (March, May, October, and December 2023). The analytical results indicated the chloride concentrations in monitor wells MW-2, MW-3, and MW-5 were below NMWQCC standards during all of the sampling events, with concentrations ranging from 46.8 mg/kg to 85.2 mg/kg. The analytical results from monitor wells MW-1R, and MW-4 exceeded the NMWQCC standards for chloride during all of the sampling events, with concentrations ranging from 852 mg/kg to 19,000 mg/kg. Chloride concentrations for all sampling events for all five monitor wells MW-1R, MW-2, MW-3, MW-4, and MW-5 indicate a recent slightly overall decreasing trend. Graphs of chloride concentrations versus groundwater elevations for each of the monitor wells are included in **Appendix A**. Chloride concentration plume distribution maps for the four quarterly sampling events in 2023 are included as **Figure 8** through **Figure 11**. The groundwater analytical data is summarized in **Table 2**. Copies of the laboratory analytical reports are included in **Appendix B**.

QUARTERLY PUMPING OF MONITOR WELL MW-1R

Monitor well MW-1R was pumped dry on a quarterly basis during 2020 to recover chloride impacted groundwater. A total of approximately 47 gallons of groundwater was recovered in 2023. All recovered groundwater is temporarily stored onsite in 55-gallon drums prior to being transported and disposed of offsite.

CONCLUSIONS

1. Analytical results indicate that BTEX concentrations were below NMWQCC standards for all four sampling events in 2023.
2. PSH has never been measured in any monitor wells at this Site.
3. Chloride analytical results for monitor wells MW-2, MW-3, and MW-5 were below NMWQCC standards during all four of the 2023 sampling events.
4. The chloride analytical results for monitor wells MW-1R and MW-4 exceeded the NMWQCC standards during all four of the 2023 sampling events.

5. The graphs for monitor well MW-1R indicate a generally stable chloride concentration trend, however, monitor wells MW-2, MW-3, MW-4, and MW-5 indicate a recent generally decreasing chloride concentration trend for all four of the 2023 sampling events.

PROPOSED 2024 GROUNDWATER MONITORING PROGRAM

Based on the consistency of data at this site, JR Oil proposes to reduce the groundwater sampling frequency to semi-annually and semi-annually pumping of monitor well MW-1R for 2024. Additionally, as indicated by the historical groundwater sampling data, BTEX is not a constituent of concern, and it is requested that the analysis of BTEX is no longer required.

If you have any questions or comments concerning this report, please feel free to contact Brittany Long at (432) 682-4559.

Respectfully submitted,
Tetra Tech, Inc.

Ezequiel Moreno Flores
Staff Geologist

Reviewed by:

Brittany Long
Project Manager

Reviewed by:

Clair Gonzales, P.G.
Senior Project Manager

Russell Weigand, P.G.
Client Account Manager

Attachments:
Figures:

- Figure 1 – Overview Map
- Figure 2 – Topographic Map
- Figure 3 – Site Map
- Figure 4 – March 2023 Potentiometric Surface Map
- Figure 5 – May 2023 Potentiometric Surface Map
- Figure 6 – October 2023 Potentiometric Surface Map
- Figure 7 – December 2023 Potentiometric Surface Map
- Figure 8 – March 2023 Chloride Plume Map
- Figure 9 – May 2023 Chloride Plume Map
- Figure 10 – October 2023 Chloride Plume Map
- Figure 11 – December 2023 Chloride Plume Map

Tables:

- Table 1 – Summary of Groundwater Elevations and PSH Thickness
- Table 2 – Summary of Analysis of Groundwater Samples

Appendix A – Trend Graphs
Appendix B – Laboratory Reports

cc: Joe Tippy – JR Oil
Rex Tippy – JR Oil

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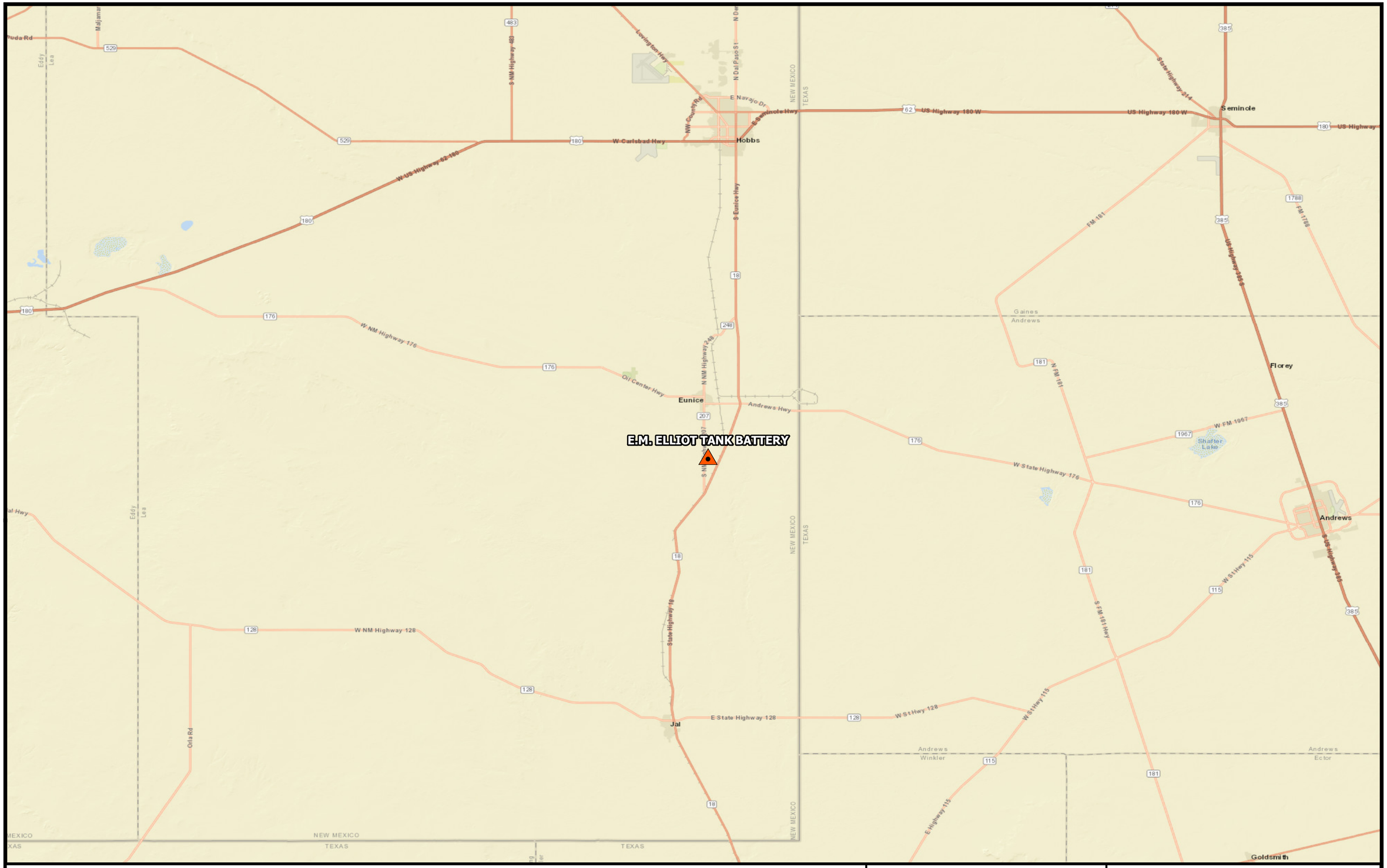
Figures



LEGEND

SITE LOCATION

N
W E
S

0 21,000 42,000

Approximate Scale in Feet

SITE LOCATOR MAP

JR OIL

TETRA TECH

901 W. WALL STREET STE. 100
MIDLAND, TEXAS
(432) 682-4559

FIGURE 1

OVERVIEW MAP

E.M. ELLIOT TANK BATTERY
LEA COUNTY, NEW MEXICO
32.38266°, -103.15517°

Project:	212C-MD-03053
Date:	1/23/2024
Name:	03053 - Figure 1 - E.M. Elliot

Document Path: C:\Users\E.MORENOFLORES\Documents\Projects\JR OIL Ltd\03053 - EM Elliot TB 2023 GWM\2023 Field Work Report\Figures\GIS\MXD\03053 - Figure 1 - E.M. Elliot.mxd

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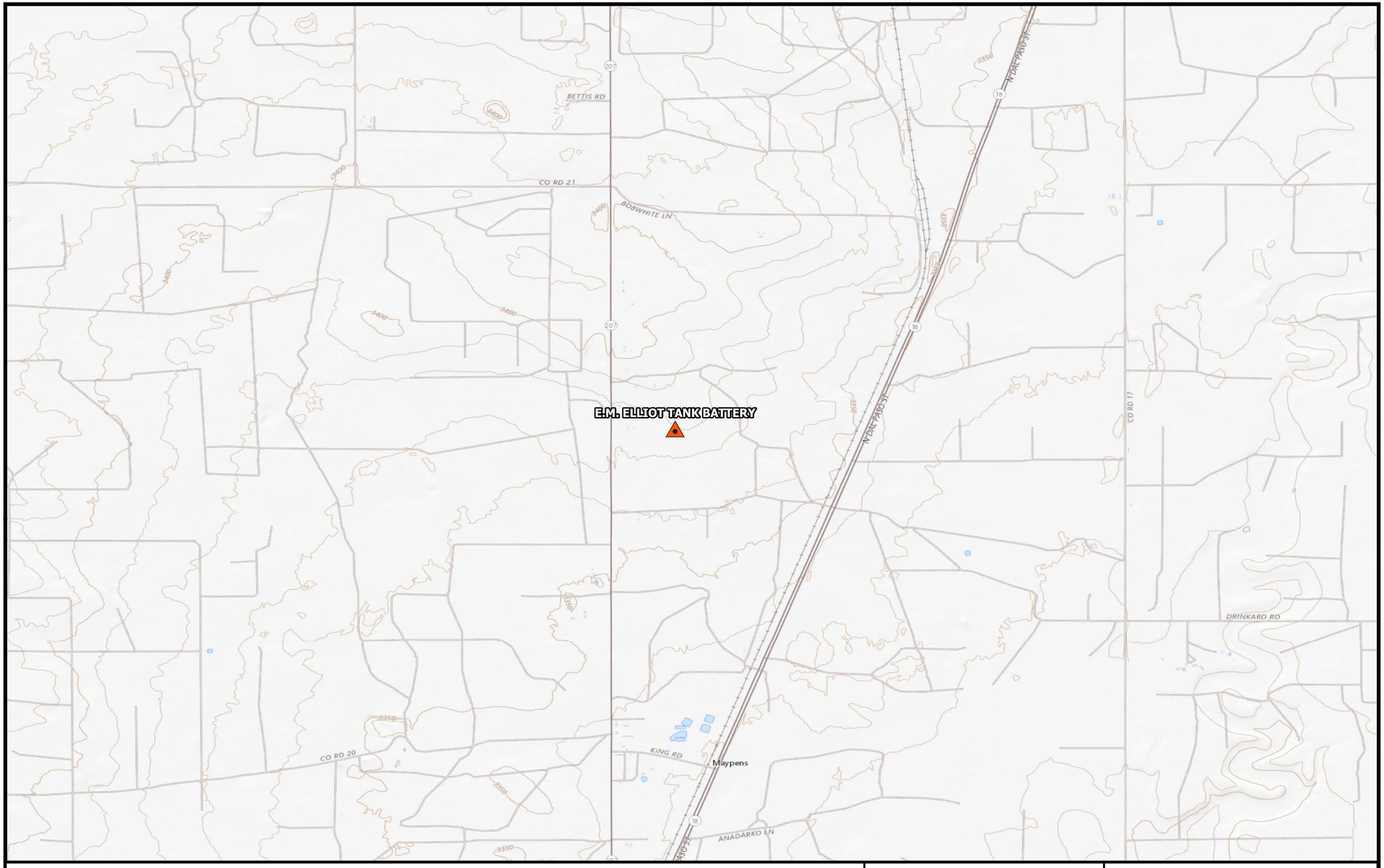

LEGEND

SITE LOCATION

N
W E
S

0 1,400 2,800

Approximate Scale in Feet

SITE LOCATOR MAP

JR OIL

TETRA TECH

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MIDLAND, TEXAS
(432) 682-4559

FIGURE 2

TOPOGRAPHIC MAP

E.M. ELLIOT TANK BATTERY
LEA COUNTY, NEW MEXICO
32.38266°, -103.15517°

Project:	212C-MD-03053
Date:	1/23/2024
Name:	03053 - Figure 2 - E.M. Elliot

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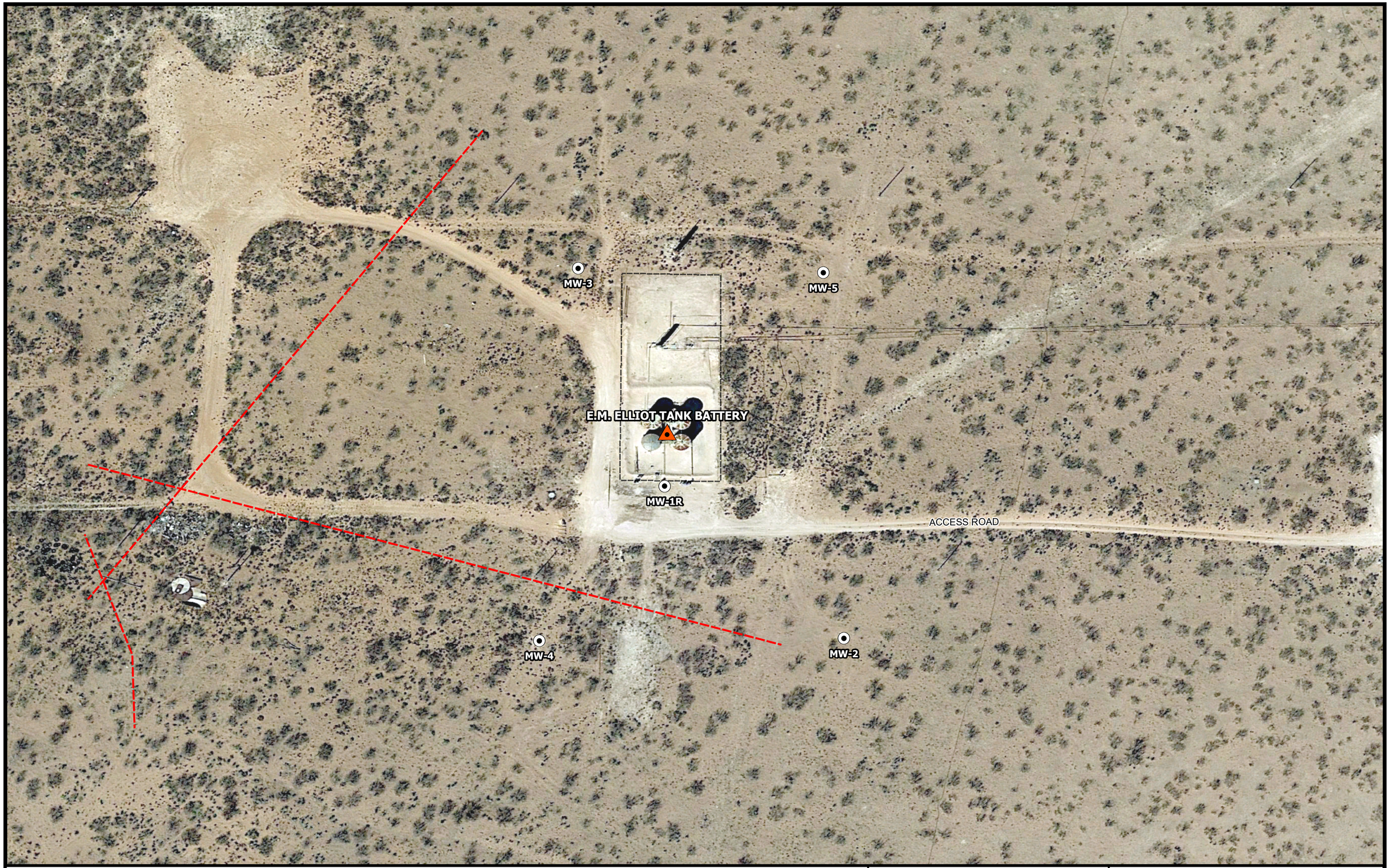
Service Layer Credits: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed April, 2023.



LEGEND

- MONITOR WELL LOCATION
- SITE LOCATION
- TARGA MIDSTREAM SUBSURFACE PIPELINES
- FENCELINE

N
W E
S

0 60 120

Approximate Scale in Feet

SITE LOCATOR MAP

JR OIL

TETRA TECH

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FIGURE 3

SITE MAP

E.M. ELLIOT TANK BATTERY
LEA COUNTY, NEW MEXICO
32.38266°, -103.15517°

Project:	212C-MD-03053
Date:	1/23/2024
Name:	03053 - Figure 3 - E.M. Elliot

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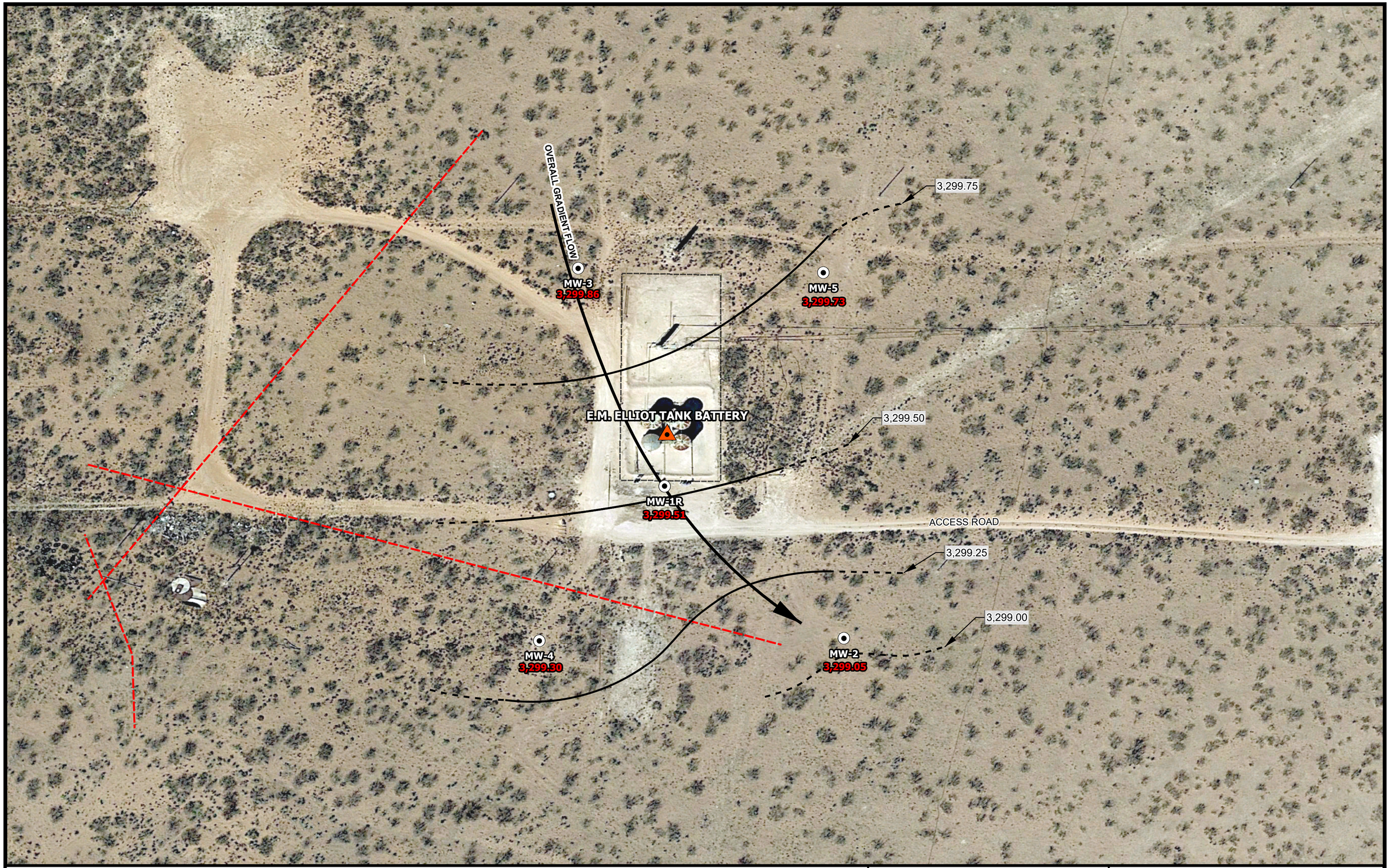

LEGEND

- MONITOR WELL LOCATION
- SITE LOCATION
- DERIVED POTENTIOMETRIC CONTOURS WITH ELEVATION IN FEET
- TARGA MIDSTREAM SUBSURFACE PIPELINES
- FENCELINE

N
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0 60 120

Approximate Scale in Feet

SITE LOCATOR MAP

JR OIL

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FIGURE 4

MARCH 2023 POTENTIOMETRIC SURFACE MAP

E.M. ELLIOT TANK BATTERY
LEA COUNTY, NEW MEXICO
32.38266°, -103.15517°

Project:	212C-MD-03053
Date:	1/23/2024
Name:	03053 - Figure 4 - E.M. Elliot

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Service Layer Credits: Google Maps.

MW-3
3,299.83

MW-5
3,299.73

MW-1R
3,299.39

MW-4
3,301.35
(REMOVED FROM ANALYSIS)

MW-2
3,299.03

OVERALL GRADIENT FLOW

3,299.75

3,299.50

3,299.25

E.M. ELLIOT TANK BATTERY

ACCESS ROAD

LEGEND

- MONITOR WELL LOCATION
- SITE LOCATION
- DERIVED POTENTIOMETRIC CONTOURS WITH ELEVATION IN FEET
- TARGA MIDSTREAM SUBSURFACE PIPELINES
- FENCELINE

N
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S

0 60 120

Approximate Scale in Feet

SITE LOCATOR MAP

JR OIL

TETRA TECH

901 W. WALL STREET STE. 100
MIDLAND, TEXAS
(432) 682-4559

FIGURE 5

MAY 2023 POTENTIOMETRIC SURFACE MAP

E.M. ELLIOT TANK BATTERY
LEA COUNTY, NEW MEXICO
32.38266°, -103.15517°

Project:	212C-MD-03053
Date:	1/26/2024
Name:	03053 - Figure 5 - E.M. Elliot

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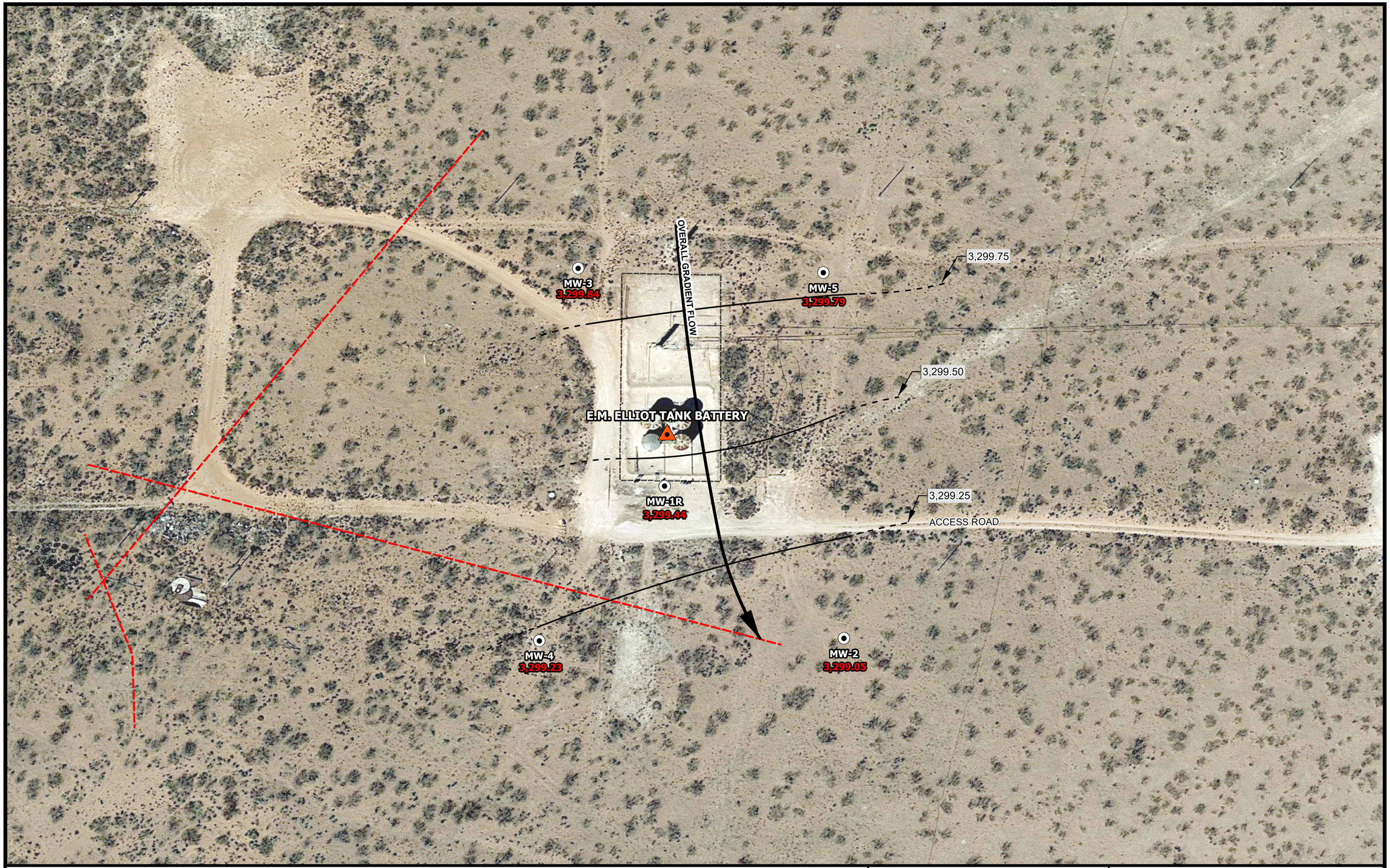

LEGEND

- MONITOR WELL LOCATION
- SITE LOCATION
- DERIVED POTENTIOMETRIC CONTOURS WITH ELEVATION IN FEET
- TARGA MIDSTREAM SUBSURFACE PIPELINES
- FENCELINE

N
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S

0 60 120

Approximate Scale in Feet

JR OIL

TETRA TECH
901 W. WALL STREET STE. 100
MIDLAND, TEXAS
(432) 682-4559

FIGURE 6

OCTOBER 2023 POTENTIOMETRIC SURFACE MAP

E.M. ELLIOT TANK BATTERY
LEA COUNTY, NEW MEXICO
32.38266°, -103.15517°

Project:	212C-MD-03053
Date:	1/26/2024
Name:	03053 - Figure 6 - E.M. Elliot

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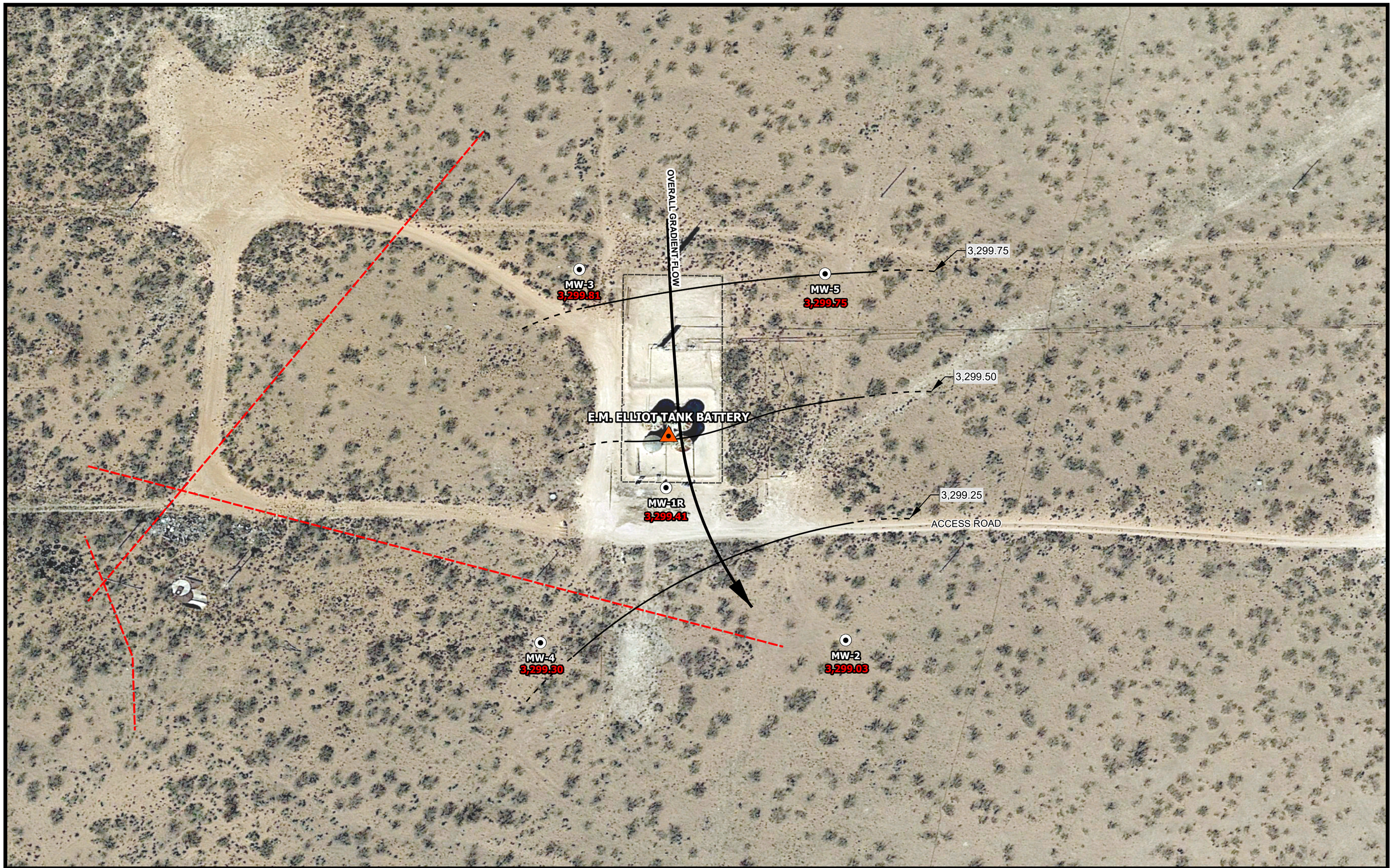

LEGEND

- MONITOR WELL LOCATION
- SITE LOCATION
- DERIVED POTENTIOMETRIC CONTOURS WITH ELEVATION IN FEET
- TARGA MIDSTREAM SUBSURFACE PIPELINES
- FENCELINE

N
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0 60 120

Approximate Scale in Feet

SITE LOCATOR MAP

JR OIL

TETRA TECH

901 W. WALL STREET STE. 100
MIDLAND, TEXAS
(432) 682-4559

FIGURE 7

DECEMBER 2023 POTENTIOMETRIC SURFACE MAP

E.M. ELLIOT TANK BATTERY
LEA COUNTY, NEW MEXICO
32.38266°, -103.15517°

Project:	212C-MD-03053
Date:	1/26/2024
Name:	03053 - Figure 7 - E.M. Elliot

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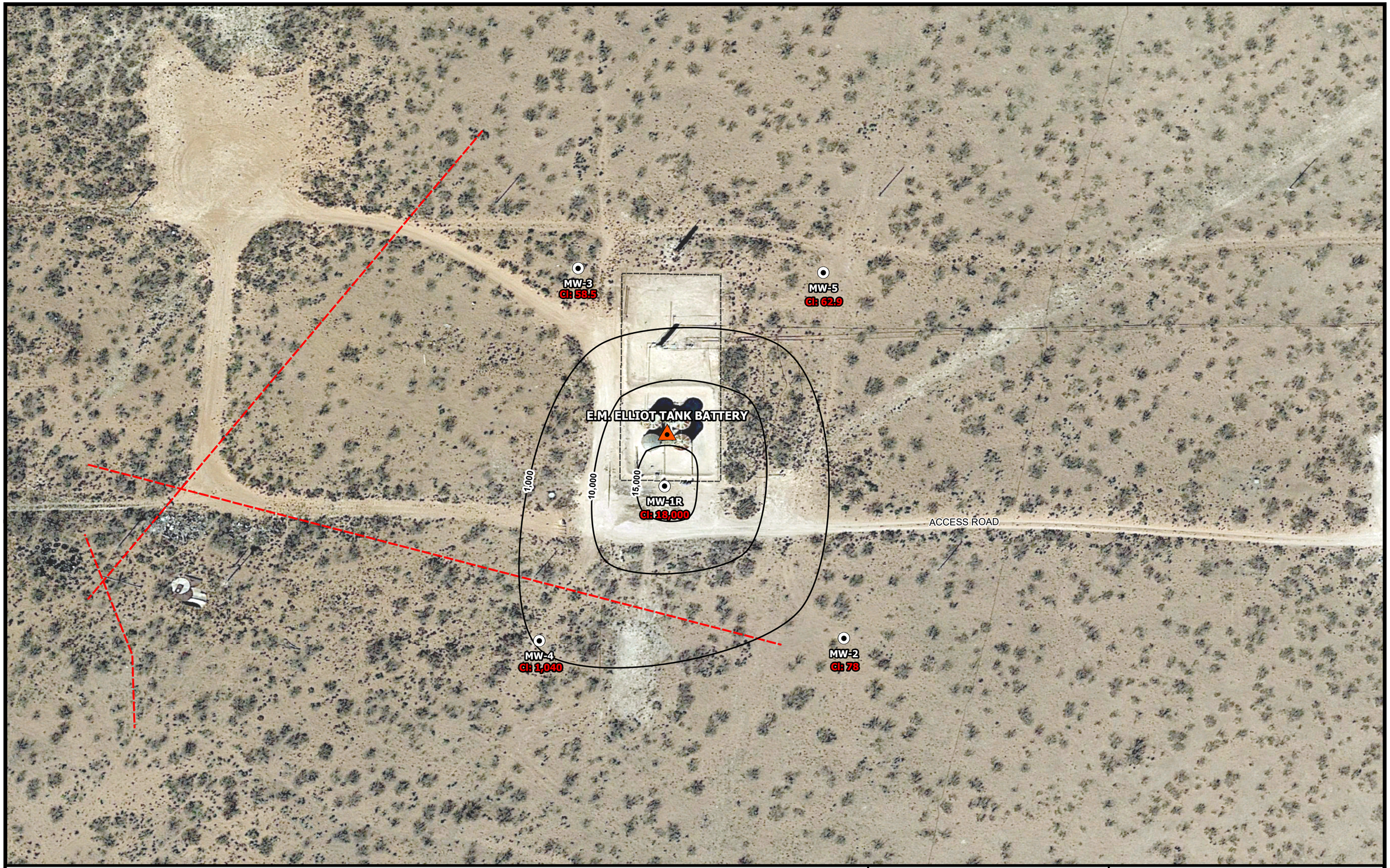

LEGEND

- MONITOR WELL LOCATION
- SITE LOCATION
- CHLORIDE CONCENTRATION DERIVED CONTOURS (PPM)
- TARGA MIDSTREAM SUBSURFACE PIPELINES
- FENCELINE

N
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S

0 60 120

Approximate Scale in Feet

SITE LOCATOR MAP

JR OIL

TETRA TECH

901 W. WALL STREET STE. 100
MIDLAND, TEXAS
(432) 682-4559

FIGURE 8

MARCH 2023 CHLORIDE PLUME MAP

E.M. ELLIOT TANK BATTERY
LEA COUNTY, NEW MEXICO
32.38266°, -103.15517°

Project:	212C-MD-03053
Date:	1/29/2024
Name:	03053 - Figure 8 - E.M. Elliot

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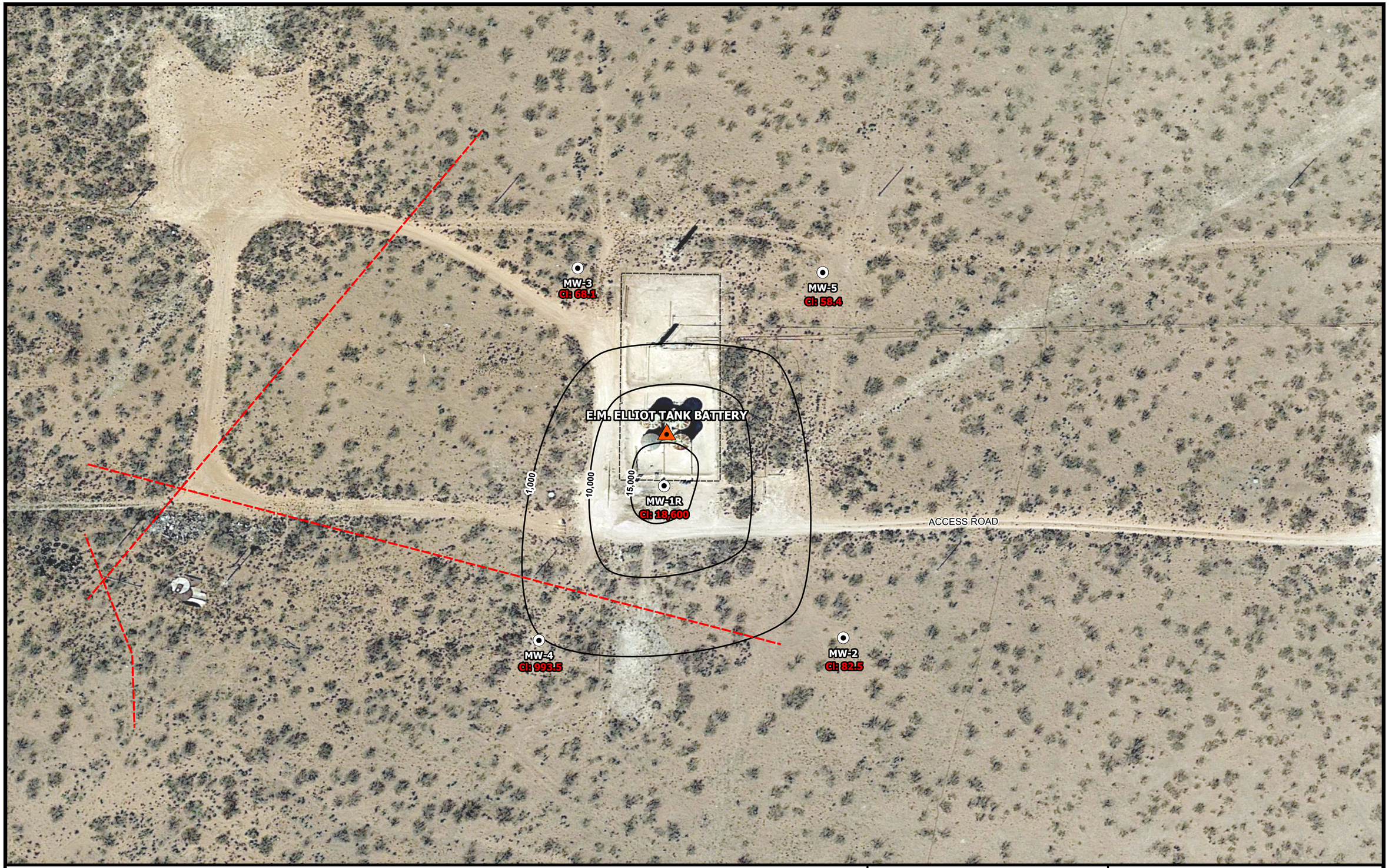

LEGEND

- MONITOR WELL LOCATION
- SITE LOCATION
- TARGA MIDSTREAM SUBSURFACE PIPELINES
- CHLORIDE CONCENTRATION DERIVED CONTOURS (PPM)
- FENCELINE

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0 60 120

Approximate Scale in Feet

JR OIL

TETRA TECH

901 W. WALL STREET STE. 100
MIDLAND, TEXAS
(432) 682-4559

FIGURE 9

MAY 2023 CHLORIDE PLUME MAP

E.M. ELLIOT TANK BATTERY
LEA COUNTY, NEW MEXICO
32.38266°, -103.15517°

Project:	212C-MD-03053
Date:	1/29/2024
Name:	03053 - Figure 9 - E.M. Elliot

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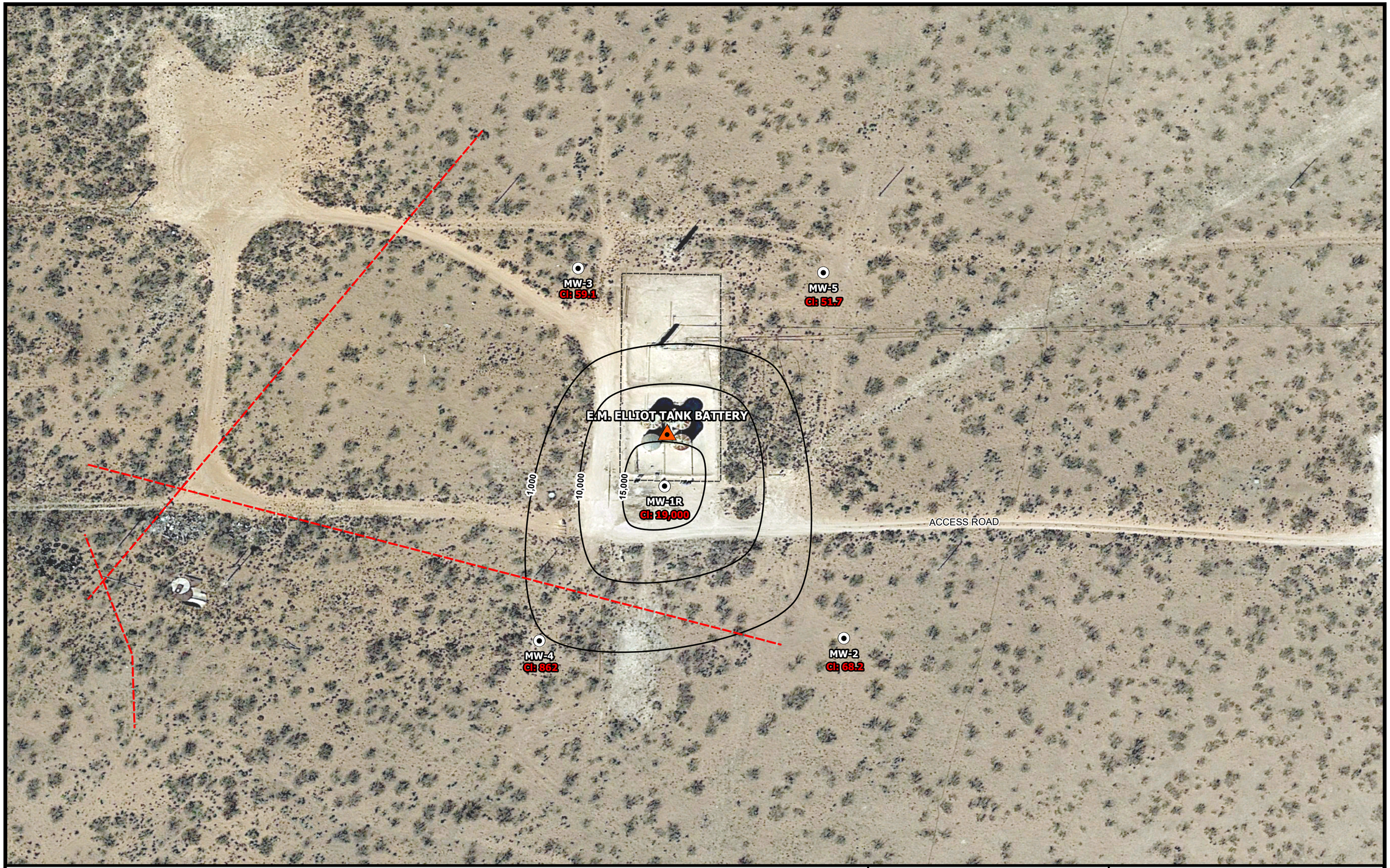

LEGEND

- MONITOR WELL LOCATION
- SITE LOCATION
- TARGA MIDSTREAM SUBSURFACE PIPELINES
- CHLORIDE CONCENTRATION DERIVED CONTOURS (PPM)
- FENCELINE

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0 60 120

Approximate Scale in Feet

SITE LOCATOR MAP

JR OIL

TETRA TECH

901 W. WALL STREET STE. 100
MIDLAND, TEXAS
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FIGURE 10

OCTOBER 2023 CHLORIDE PLUME MAP

E.M. ELLIOT TANK BATTERY
LEA COUNTY, NEW MEXICO
32.38266°, -103.15517°

Project:	212C-MD-03053
Date:	1/29/2024
Name:	03053 - Figure 10 - E.M. Elliot

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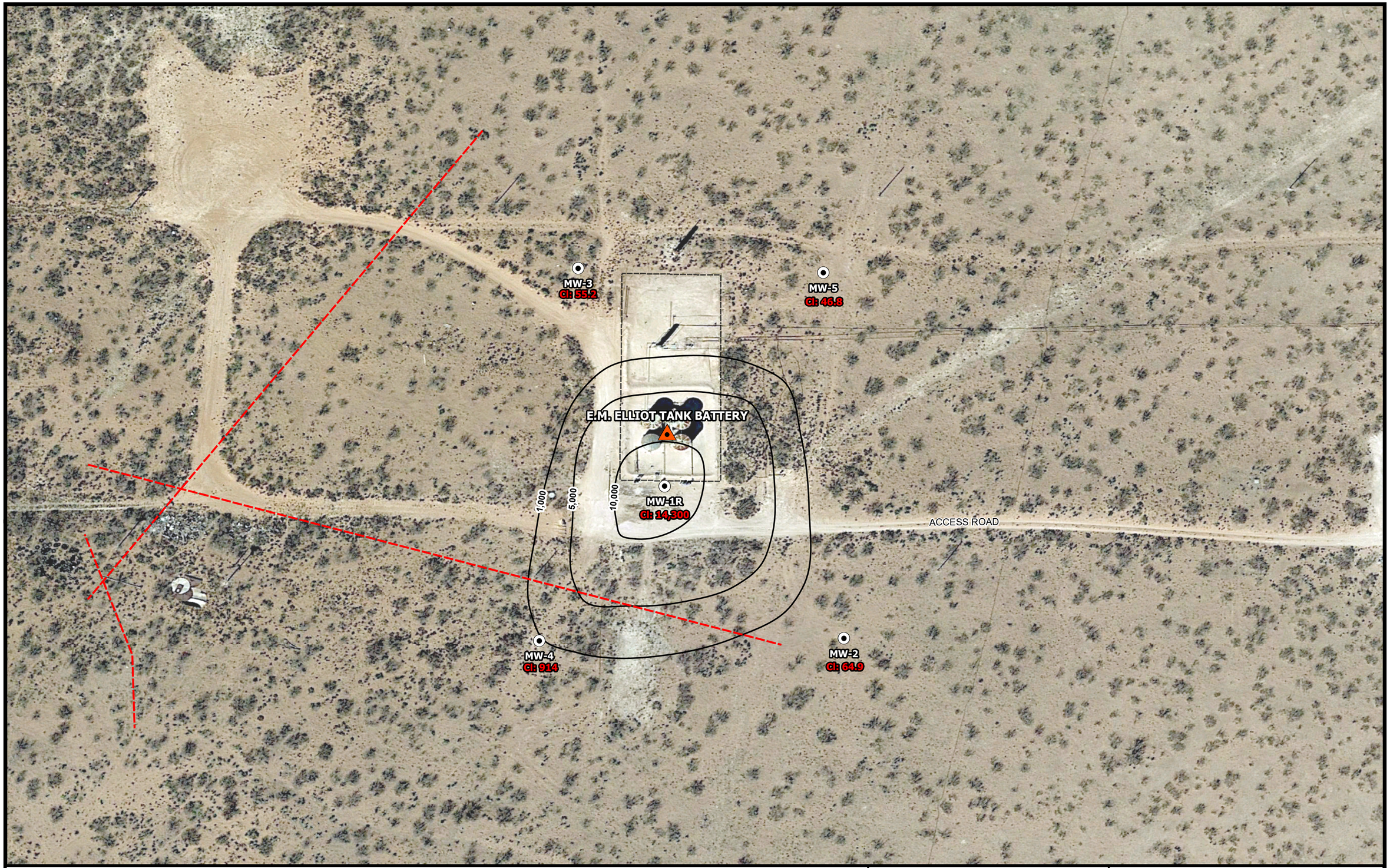
Service Layer Credits: Google Maps.



LEGEND

- MONITOR WELL LOCATION
- SITE LOCATION
- CHLORIDE CONCENTRATION DERIVED CONTOURS (PPM)
- TARGA MIDSTREAM SUBSURFACE PIPELINES
- FENCELINE

N
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0 60 120

Approximate Scale in Feet

SITE LOCATOR MAP

JR OIL

TETRA TECH

901 W. WALL STREET STE. 100
MIDLAND, TEXAS
(432) 682-4559

FIGURE 11

DECEMBER 2023 CHLORIDE PLUME MAP

E.M. ELLIOT TANK BATTERY
LEA COUNTY, NEW MEXICO
32.38266°, -103.15517°

Project:	212C-MD-03053
Date:	2/16/2024
Name:	03053 - Figure 11 - E.M. Elliot

Document Path: C:\Users\E.MORENOFLORES\Documents\Projects\JR OIL Ltd\03053 - EM Elliot TB 2023 GWM\2023 Field Work Report\Figures\GIS\MXD\03053 - Figure 11 - E.M. Elliot.mxd

Service Layer Credits: Google Maps.

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Tables

TABLE 1
JR Oil, LTD. CO.
E. M. Elliott Tank Battery
Summary of Groundwater Elevations and PSH Thickness
Lea County, New Mexico

Well/ Borehole ID	Date Measurement	Top of Casing Elevation, feet AMSL	Total Well Depth (in ft)	Product (ft) (TOC)	Water level (ft) (TOC)	PSH Thickness (ft)	Groundwater Elevation (ft)
MW-1	10/23/08	3,378.91	85.60	-	80.88	-	3,298.03
	12/10/08	-	85.60	-	80.85	-	3,298.06
	03/11/09	-	85.60	-	80.85	-	3,298.06
	06/22/09	-	85.60	-	80.84	-	3,298.07
	09/15/09	-	85.66	-	80.84	-	3,298.03
	12/09/09	-	85.60	-	80.88	-	3,298.03
	03/10/10	-	85.60	-	80.85	-	3,298.06
	06/07/10	-	85.60	-	80.77	-	3,298.14
	09/13/10	-	85.60	-	81.64	-	3,297.27
	12/13/10	-	85.60	-	81.78	-	3,297.13
	03/10/11	-	85.60	-	81.82	-	3,297.09
	06/13/11	-	85.60	-	80.77	-	3,298.14
	09/20/11	-	85.60	-	80.82	-	3,298.09
	12/12/11	-	85.60	-	80.95	-	3,297.96
	04/05/12	-	85.60	-	80.84	-	3,298.07
	06/19/12	-	85.60	-	80.83	-	3,298.08
	09/24/12	-	85.60	-	80.91	-	3,298.00
	12/14/12	-	85.60	-	80.82	-	3,298.09
	03/27/13	-	86.80	-	80.83	-	3,298.08
	06/07/13	-	-	-	80.82	-	3,298.09
	09/19/13	-	-	-	80.81	-	3,298.10
	12/26/13	-	86.83	-	80.86	-	3,298.05
	03/27/14	-	85.60	-	80.93	-	3,297.98
	06/17/14	-	85.60	-	80.83	-	3,298.08
	09/26/14	-	85.60	-	80.88	-	3,298.03
	12/15/14	-	85.59	-	80.99	-	3,297.92
	03/24/15	-	85.66	-	80.91	-	3,298.00
	06/18/15	-	85.66	-	80.96	-	3,297.95
	08/06/15	-	-	-	80.90	-	3,298.01
	08/12/15	-	-	-	80.87	-	3,298.04
	08/18/15	-	-	-	80.84	-	3,298.07
	09/08/15	-	85.66	-	80.82	-	3,298.09
	12/18/15	-	85.72	-	80.86	-	3,298.05
	03/14/16	-	-	-	80.82	-	3,298.09
	06/28/16	-	85.66	-	80.83	-	3,298.08
	09/12/16	Well Plugged					
MW-1R	09/09/16	3,380.41	-	-	79.32	-	3,301.09
	09/15/16	-	-	-	82.04	-	3,298.37
	09/29/16	-	92.40	-	81.34	-	3,299.07
	10/12/16	-	-	-	81.30	-	3,299.11
	12/06/16	-	-	-	81.32	-	3,299.09
	03/01/17	-	92.40	-	81.39	-	3,299.02
	08/29/17	-	-	-	81.29	-	3,299.12
	11/20/17	-	-	-	81.66	-	3,298.75

TABLE 1
JR Oil, LTD. CO.
E. M. Elliott Tank Battery
Summary of Groundwater Elevations and PSH Thickness
Lea County, New Mexico

Well/ Borehole ID	Date Measurement	Top of Casing Elevation, feet AMSL	Total Well Depth (in ft)	Product (ft) (TOC)	Water level (ft) (TOC)	PSH Thickness (ft)	Groundwater Elevation (ft)
MW-1R Cont.	02/20/18	-	90.38	-	81.28	-	3,299.13
	05/24/18	-	-	-	81.12	-	3,299.29
	08/24/18	-	-	-	81.70	-	3,298.71
	11/15/18	-	90.45	-	81.65	-	3,298.76
	02/08/19	-	90.42	-	81.15	-	3,299.26
	08/07/19	-	90.40	-	81.3	-	3,299.11
	02/18/20	-	90.30	-	81.41	-	3,299.00
	05/04/20	-	90.30	-	81.17	-	3,299.24
	08/11/20	-	90.30	-	81.10	-	3,299.31
	11/16/20	-	90.30	-	81.10	-	3,299.31
	07/26/22	-	90.10	-	81.10	-	3,299.31
	12/01/22	-	90.10	-	81.12	-	3,299.29
	03/14/23	-	90.10	-	80.90	-	3,299.51
	05/15/23	-	90.10	-	81.02	-	3,299.39
	10/09/23	-	90.10	-	80.97	-	3,299.44
	12/29/23	-	90.10	-	81.00	-	3,299.41
MW-2	09/20/11	3,378.00	102.00	-	82.97	-	3,295.03
	12/12/11	-	102.00	-	80.44	-	3,297.56
	04/05/12	-	102.00	-	80.27	-	3,297.73
	06/19/12	-	102.00	-	80.32	-	3,297.68
	09/24/12	-	102.00	-	80.31	-	3,297.69
	12/14/12	-	102.00	-	80.34	-	3,297.66
	03/27/13	-	98.35	-	80.33	-	3,297.67
	06/07/13	-	-	-	80.35	-	3,297.65
	09/19/13	-	-	-	80.34	-	3,297.66
	12/26/13	-	-	-	80.35	-	3,297.65
	03/27/14	-	97.16	-	80.39	-	3,297.61
	06/17/14	-	97.16	-	80.29	-	3,297.71
	09/30/14	-	97.16	-	80.37	-	3,297.63
	12/15/14	-	97.16	-	80.44	-	3,297.56
	03/24/15	-	97.05	-	80.37	-	3,297.63
	06/18/15	-	97.16	-	80.36	-	3,297.64
	08/06/15	-	-	-	80.37	-	3,297.63
	09/08/15	-	97.16	-	80.33	-	3,297.67
	12/18/15	-	97.12	-	80.35	-	3,297.65
	03/14/16	-	-	-	80.30	-	3,297.70
	06/28/16	-	97.16	-	80.32	-	3,297.68
	09/09/16	3,378.98	-	-	80.27	-	3,298.71
	09/29/16	-	97.16	-	80.34	-	3,298.64
	10/12/16	-	-	-	80.30	-	3,298.68
	12/06/16	-	-	-	80.34	-	3,298.64
	03/01/17	-	98.35	-	80.32	-	3,298.66
	08/29/17	-	98.35	-	80.29	-	3,298.69
	11/20/17	-	-	-	80.43	-	3,298.55

TABLE 1
JR Oil, LTD. CO.
E. M. Elliott Tank Battery
Summary of Groundwater Elevations and PSH Thickness
Lea County, New Mexico

Well/ Borehole ID	Date Measurement	Top of Casing Elevation, feet AMSL	Total Well Depth (in ft)	Product (ft) (TOC)	Water level (ft) (TOC)	PSH Thickness (ft)	Groundwater Elevation (ft)
MW-2 Cont.	02/20/18	-	97.10	-	80.29	-	3,298.69
	05/24/18	-	-	-	80.17	-	3,298.81
	08/24/18	-	-	-	80.42	-	3,298.56
	11/15/18	-	97.19	-	80.38	-	3,298.60
	02/08/19	-	96.83	-	80.20	-	3,298.78
	08/07/19	-	97.25	-	80.35	-	3,298.63
	02/18/20	-	96.95	-	80.17	-	3,298.81
	05/04/20	-	96.95	-	80.10	-	3,298.88
	08/11/20	-	96.90	-	80.13	-	3,298.85
	11/16/20	-	96.90	-	80.14	-	3,298.84
	07/26/22	-	97.10	-	79.95	-	3,299.03
	12/01/22	-	97.10	-	79.91	-	3,299.07
	03/14/23	-	97.10	-	79.93	-	3,299.05
	05/15/23	-	97.10	-	79.95	-	3,299.03
	10/09/23	-	97.10	-	79.93	-	3,299.05
	12/29/23	-	97.10	-	79.95	-	3,299.03
MW-3	09/20/11	3,381.40	99.00	-	80.33	-	3,301.07
	12/12/11	-	99.00	-	83.11	-	3,298.29
	04/05/12	-	99.00	-	82.98	-	3,298.42
	06/19/12	-	99.00	-	82.99	-	3,298.41
	09/24/12	-	99.00	-	82.99	-	3,298.41
	12/14/12	-	99.00	-	82.99	-	3,298.41
	03/27/13	-	99.00	-	83.04	-	3,298.36
	06/07/13	-	-	-	83.05	-	3,298.35
	09/19/13	-	-	-	83.02	-	3,298.38
	12/26/13	-	-	-	83.09	-	3,298.31
	03/27/14	-	100.95	-	83.12	-	3,298.28
	06/17/14	-	100.95	-	83.06	-	3,298.34
	09/30/14	-	100.95	-	83.09	-	3,298.31
	12/15/14	-	100.94	-	83.18	-	3,298.22
	03/24/15	-	100.94	-	83.08	-	3,298.32
	06/18/15	-	100.94	-	83.05	-	3,298.35
	08/06/15	-	-	-	83.04	-	3,298.36
	09/08/15	-	100.94	-	83.02	-	3,298.38
	12/18/15	-	104.94	-	83.04	-	3,298.36
	03/14/16	-	-	-	82.99	-	3,298.41
	06/28/16	-	100.97	-	82.98	-	3,298.42
	09/09/16	3,382.36	-	-	83.00	-	3,299.36
	09/29/16	-	100.97	-	83.01	-	3,299.35
	10/12/16	-	-	-	82.98	-	3,299.38
	12/06/16	-	-	-	82.99	-	3,299.37
	03/01/17	-	-	-	83.00	-	3,299.36
	08/29/17	-	-	-	82.98	-	3,299.38
	11/20/17	-	-	-	83.05	-	3,299.31

TABLE 1
JR Oil, LTD. CO.
E. M. Elliott Tank Battery
Summary of Groundwater Elevations and PSH Thickness
Lea County, New Mexico

Well/ Borehole ID	Date Measurement	Top of Casing Elevation, feet AMSL	Total Well Depth (in ft)	Product (ft) (TOC)	Water level (ft) (TOC)	PSH Thickness (ft)	Groundwater Elevation (ft)
MW-3 Cont.	02/20/18	-	100.96	-	82.93	-	3,299.43
	05/24/18	-	-	-	82.83	-	3,299.53
	08/24/18	-	-	-	83.02	-	3,299.34
	11/15/18	-	101.09	-	82.96	-	3,299.40
	02/08/19	-	100.94	-	82.88	-	3,299.48
	08/07/19	-	101.15	-	82.97	-	3,299.39
	02/18/20	-	100.90	-	82.80	-	3,299.56
	05/04/20	-	100.90	-	82.72	-	3,299.64
	08/11/20	-	100.70	-	82.77	-	3,299.59
	11/16/20	-	101.71	-	82.79	-	3,299.57
	07/26/22	-	100.75	-	82.63	-	3,299.73
	12/01/22	-	100.75	-	82.60	-	3,299.76
	03/14/23	-	100.75	-	82.50	-	3,299.86
	05/15/23	-	100.75	-	82.53	-	3,299.83
	10/09/23	-	100.75	-	82.52	-	3,299.84
	12/29/23	-	100.75	-	82.55	-	3,299.81
MW-4	09/08/16	3,377.80	-	-	78.90	-	3,298.90
	09/09/16	-	-	-	78.96	-	3,298.84
	09/15/16	-	-	-	78.95	-	3,298.85
	09/29/16	-	94.40	-	78.95	-	3,298.85
	10/12/16	-	-	-	78.92	-	3,298.88
	12/06/16	-	-	-	78.91	-	3,298.89
	03/01/17	-	93.35	-	78.89	-	3,298.91
	08/29/17	-	93.35	-	78.91	-	3,298.89
	11/20/17	-	-	-	78.96	-	3,298.84
	02/20/18	-	93.72	-	78.82	-	3,298.98
	05/24/18	-	-	-	78.75	-	3,299.05
	08/24/18	-	-	-	78.98	-	3,298.82
	11/15/18	-	93.72	-	78.87	-	3,298.93
	02/08/19	-	93.55	-	78.72	-	3,299.08
	08/07/19	-	93.80	-	78.93	-	3,298.87
	02/18/20	-	94.60	-	78.70	-	3,299.10
	05/04/20	-	94.60	-	78.70	-	3,299.10
	08/11/20	-	93.40	-	78.70	-	3,299.10
	11/16/20	-	93.40	-	78.76	-	3,299.04
	07/26/22	-	93.40	-	78.58	-	3,299.22
	12/01/22	-	93.40	-	78.50	-	3,299.30
	03/14/23	-	93.40	-	78.50	-	3,299.30
	05/15/23	-	93.40	-	76.45	-	3,301.35
	10/09/23	-	93.40	-	78.57	-	3,299.23
	12/29/23	-	93.40	-	78.50	-	3,299.30
MW-5	09/08/16	3,384.53	-	-	85.15	-	3,299.38
	09/09/16	-	-	-	85.19	-	3,299.34
	09/15/16	-	-	-	85.15	-	3,299.38

TABLE 1
JR Oil, LTD. CO.
E. M. Elliott Tank Battery
Summary of Groundwater Elevations and PSH Thickness
Lea County, New Mexico

Well/ Borehole ID	Date Measurement	Top of Casing Elevation, feet AMSL	Total Well Depth (in ft)	Product (ft) (TOC)	Water level (ft) (TOC)	PSH Thickness (ft)	Groundwater Elevation (ft)
MW-5 Cont.	09/29/16	-	101.94	-	85.16	-	3,299.37
	10/12/16	-	-	-	85.14	-	3,299.39
	12/06/16	-	-	-	85.18	-	3,299.35
	03/01/17	-	101.49	-	85.2	-	3,299.33
	08/29/17	-	101.49	-	85.16	-	3,299.37
	11/20/17	-	-	-	85.24	-	3,299.29
	02/20/18	-	101.95	-	85.12	-	3,299.41
	05/24/18	-	-	-	85.03	-	3,299.50
	08/24/18	-	-	-	85.25	-	3,299.28
	11/15/18	-	-	-	85.19	-	3,299.34
	02/08/19	-	101.95	-	85.03	-	3,299.50
	08/07/19	-	101.20	-	85.25	-	3,299.28
	02/18/20	-	100.77	-	85.00	-	3,299.53
	05/04/20	-	100.77	-	84.91	-	3,299.62
	08/11/20	-	100.74	-	84.96	-	3,299.57
	11/16/20	-	100.80	-	84.95	-	3,299.58
	07/26/22	-	100.80	-	84.92	-	3,299.61
	12/01/22	-	100.80	-	84.86	-	3,299.67
	03/14/23	-	100.80	-	84.80	-	3,299.73
	05/15/23	-	100.80	-	84.80	-	3,299.73
	10/09/23	-	100.80	-	84.74	-	3,299.79
	12/29/23	-	100.80	-	84.78	-	3,299.75

(-) No data (TOC) Top of casing
9/7/16 MW-4 and MW-5 drilled
9/8/16 MW-1R drilled
9/12/16 MW-1 plugged
10/12/16 John West Survey Company surveyed all five monitor wells on Site

TABLE 2
JR Oil, LTD. CO.
E. M. Elliott Tank Battery
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/l)	Xylene (mg/L)	Total BTEX (mg/l)	Chloride (mg/L)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			**0.010 mg/L**	**0.75 mg/L**	**0.75 mg/L**	**0.62 mg/L**		**250.0 mg/L***
MW-1	09/25/06	-	**0.0013**	<0.001	<0.001	**0.0065**	**0.0078**	**8,260**
	05/15/07	-	<0.001	<0.001	<0.001	**0.0015**	**0.0015**	**2,020**
	10/23/08	-	<0.005	<0.005	<0.005	<0.005	<0.005	**8,040**
	12/11/08	-	<0.005	<0.005	<0.005	<0.015	<0.015	**9,590**
	03/11/09	-	<0.001	<0.001	<0.001	<0.003	<0.003	**9,670**
Dup	03/11/09	-	<0.001	<0.001	<0.001	<0.003	<0.003	**8,950**
	06/22/09	-	**0.00049**	<0.001	<0.001	<0.003	<0.003	**9,600**
	09/15/09	-	<0.001	<0.001	<0.001	<0.003	<0.003	**9,500**
	12/09/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	**9,880**
	03/10/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	**8,630**
	06/07/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	**9,650**
	09/13/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	**9,520**
	12/13/10	-	<0.001	<0.001	<0.001	<0.003	<0.003	**9,580**
	03/10/11	-	<0.001	<0.001	<0.001	<0.003	<0.003	**16,800**
	06/13/11	-	**0.00024 J**	<0.00030	<0.00020	<0.00023	**0.00024 J**	**11,000**
	09/20/11	-	**0.00027 J**	<0.00030	<0.00020	<0.00023	**0.00027 J**	**4,400**
	12/13/11	-	**0.00025 J**	<0.00030	<0.00020	<0.00023	**0.00025 J**	**9,600**
	04/06/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	**10,300**
	06/19/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	**8,030**
	09/24/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	**11,100**
	11/27/12	-	-	-	-	-	-	**9,110**
	11/27/12	-	-	-	-	-	-	**8,310**
	12/14/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	**7,230**
	03/27/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	**8,820**
	06/07/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	**9,320**
	09/19/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	**9,620**
	12/27/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	**8380**

212C-MD-03053

TABLE 2
JR Oil, LTD. CO.
E. M. Elliott Tank Battery
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/l)	Xylene (mg/L)	Total BTEX (mg/l)	Chloride (mg/L)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			**0.010 mg/L**	**0.75 mg/L**	**0.75 mg/L**	**0.62 mg/L**		**250.0 mg/L***
MW-1 Cont.	03/27/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	**7,630**
	06/19/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	**11,100**
	09/30/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	**13,400**
	12/15/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	**10,700**
	03/24/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	**11,000**
	06/18/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	**11,000**
	09/08/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	**11,500**
	12/18/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	**11,500**
	03/15/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	**10,000**
Dup	03/15/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	**9,590**
	06/30/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	**9,270**
Dup	06/30/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	**10,700**
	09/12/16	Plugged						
MW-1R	09/29/16	-	<0.005	**0.00095 J**	<0.005	<0.015	**0.00095 J**	**7,210**
Dup	09/29/16	-	<0.005	**0.0010 J**	<0.005	<0.015	**0.0010 J**	**7,040**
	12/07/16	-	<0.005	<0.005	<0.005	<0.005	<0.005	**8,810**
Dup	12/07/16	-	<0.005	<0.005	<0.005	<0.005	<0.005	**9,380**
	03/03/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	**8,740**
Dup	03/03/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	**9,250**
	06/08/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**8,710**
Dup	06/08/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**8,690**
	08/30/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**8,600**
Dup	08/30/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**8,860**
	11/20/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**12,500**
Dup	11/20/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**9,330**
	02/21/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**9,380**
Dup	02/21/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**9,340**

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TABLE 2
JR Oil, LTD. CO.
E. M. Elliott Tank Battery
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/l)	Xylene (mg/L)	Total BTEX (mg/l)	Chloride (mg/L)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			**0.010 mg/L**	**0.75 mg/L**	**0.75 mg/L**	**0.62 mg/L**		**250.0 mg/L***
MW-1R Cont.	05/24/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**8,490**
Dup	05/24/18	-	<0.0050	<0.0050	<0.0050	**<0.0050**	**<0.0050**	**9,810**
	08/24/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**9,160**
Dup	08/24/18	-	<0.0050	<0.0050	<0.0050	**0.00081 J**	**0.00081 J**	**9,300**
	11/15/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**7,850**
	02/08/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**608**
	08/07/19	-	<0.0060	<0.0050	<0.0050	<0.0050	<0.0050	**8,840**
	02/18/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00050	**8,810**
	05/04/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00050	**7,980**
	08/11/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00060	**10,600**
	11/16/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00060	**11,700**
	12/01/22	-	<0.00100	<0.00100	<0.00100	<0.00300	<0.00300	**18,900**
	03/14/23	-	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**18,000**
	05/16/23	-	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**18,600**
	10/09/23	-	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**19,000**
	12/29/23	-	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**14,300**
MW-2	09/20/11	-	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	**51**
	12/13/11	-	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	**160**
	04/06/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	**62.2**
	06/19/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	**60.7**
	09/24/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	**63.3**
	12/14/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	**50.7**
	03/27/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	**109**
	06/07/13	-	NA	-	-	-	-	NA
	09/19/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	**59.9**
	12/27/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	**53.5**
	03/27/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	**63.1**

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TABLE 2
JR Oil, LTD. CO.
E. M. Elliott Tank Battery
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/l)	Xylene (mg/L)	Total BTEX (mg/l)	Chloride (mg/L)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			**0.010 mg/L**	**0.75 mg/L**	**0.75 mg/L**	**0.62 mg/L**		**250.0 mg/L***
MW-2 Cont.	06/19/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	**63.1**
	09/30/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	**58.0**
	12/15/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	**54.4**
	03/24/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	**55.0**
	06/18/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	**55.0**
	09/08/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	**54.2**
	12/18/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	**53.6**
	03/15/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	**57.6**
	06/30/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	**53.4**
	09/29/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	**51.2**
	12/07/16	-	<0.005	<0.005	<0.005	<0.005	<0.005	**54.3**
	03/03/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	**53.2**
	06/08/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**49.4**
	08/30/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**50.4**
	11/20/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**57.5**
	02/21/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**56.0**
	05/24/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**58.6**
	08/24/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**54.7**
	11/15/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**55.3**
	02/08/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**53.4**
	08/07/19	-	<0.0060	<0.0050	<0.0050	<0.0050	<0.0050	**56.6**
	02/18/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00050	**54.9**
	05/04/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00050	**53.7**
	08/11/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00060	**56.9**
	11/16/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00060	**56.7**
	07/26/22	-	**0.00430**	<0.00200	<0.00200	<0.00400	**0.00430**	**335**
	12/01/22	-	<0.00100	<0.00100	<0.00100	<0.00300	<0.00300	**140.0**

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TABLE 2
JR Oil, LTD. CO.
E. M. Elliott Tank Battery
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/l)	Xylene (mg/L)	Total BTEX (mg/l)	Chloride (mg/L)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			**0.010 mg/L**	**0.75 mg/L**	**0.75 mg/L**	**0.62 mg/L**		**250.0 mg/L***
MW-2 Cont.	03/14/23	-	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**77.6**
	05/16/23	-	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**85.2**
	10/09/23	-	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**68.2**
	12/29/23	-	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**64.9**
MW-3	09/20/11	-	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	**270**
	12/13/11	-	<0.00014	<0.00030	<0.00020	<0.00023	<0.00030	**52.0**
	04/06/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	**51.7**
	06/19/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	**52.6**
	09/24/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	**54.9**
	12/14/12	-	<0.005	<0.005	<0.005	<0.015	<0.015	**46.0**
	03/27/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	**97.5**
	06/07/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	**47.0**
	09/19/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	**54.3**
	12/27/13	-	<0.005	<0.005	<0.005	<0.015	<0.015	**51.3**
	03/27/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	**57.0**
	06/19/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	**60.2**
	09/30/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	**53.2**
	12/15/14	-	<0.005	<0.005	<0.005	<0.015	<0.015	**51.1**
	03/24/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	**56.9**
	06/18/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	**52.4**
	09/08/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	**51.8**
	12/18/15	-	<0.005	<0.005	<0.005	<0.015	<0.015	**51.0**
	03/15/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	**55.9**
	06/30/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	**53.4**
	09/29/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	**49.0**
	12/07/16	-	<0.005	<0.005	<0.005	<0.005	<0.005	**54.6**
	03/03/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	**55.1**

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TABLE 2
JR Oil, LTD. CO.
E. M. Elliott Tank Battery
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/l)	Xylene (mg/L)	Total BTEX (mg/l)	Chloride (mg/L)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			**0.010 mg/L**	**0.75 mg/L**	**0.75 mg/L**	**0.62 mg/L**		**250.0 mg/L***
MW-3 Cont.	06/08/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**48.4**
	08/30/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**49.3**
	11/20/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**55.5**
	02/21/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**52.7**
	05/24/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**55.9**
	08/24/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**56.7**
	11/15/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**56.4**
	02/08/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**52.8**
	08/07/19	-	<0.0060	<0.0050	<0.0050	<0.0050	<0.0050	**55.9**
	02/18/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00050	**55.7**
	05/04/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00050	**56**
	08/11/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00060	**63.4**
	11/16/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00060	**58.1**
	07/26/22		<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**186**
	12/01/22		<0.00100	<0.00100	<0.00100	<0.00300	<0.00300	**252**
	03/14/23		<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**58.5**
	05/16/23		<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**68.1**
	10/09/23		<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**59.1**
	12/29/23		<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**55.2**
MW-4	09/29/16	-	<0.005	<0.005	<0.005	<0.015	<0.015	**696**
	12/07/16	-	<0.005	<0.005	<0.005	<0.005	<0.005	**1,010**
	03/03/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	**1,080**
	06/08/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**923**
	08/30/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**905**
	11/20/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**1,270**
	02/21/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**1,110**
	05/24/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**985**

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TABLE 2
JR Oil, LTD. CO.
E. M. Elliott Tank Battery
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/l)	Xylene (mg/L)	Total BTEX (mg/l)	Chloride (mg/L)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			**0.010 mg/L**	**0.75 mg/L**	**0.75 mg/L**	**0.62 mg/L**		**250.0 mg/L***
MW-4 Cont.	08/24/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**877**
	11/15/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**1,090**
Dup	11/15/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**1,100**
	02/08/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**1,010**
Dup	02/08/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**1,020**
	08/07/19	-	<0.0060	<0.0050	<0.0050	<0.0050	<0.0050	**933**
Dup	08/07/19	-	<0.0060	<0.0050	<0.0050	<0.0050	<0.0050	**931**
	02/18/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00050	**1,070**
Dup	02/18/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00050	**1,070**
	05/04/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00050	**1,040**
Dup	05/04/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00050	**1,050**
	08/11/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00060	**818**
Dup	08/11/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00060	**828**
	11/16/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00060	**999**
Dup	11/16/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00060	**1,010**
	07/26/22	-	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**834**
Dup	07/26/22	-	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**760**
	12/01/22	-	<0.00100	<0.00100	<0.00100	0.000283	<0.00300	**1,040**
Dup	12/01/22	-	<0.00100	<0.00100	<0.00100	<0.00300	<0.00300	**995**
	03/14/23	-	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**1,040**
Dup	03/14/23	-	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**1,040**
	05/16/23	-	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**977**
Dup	05/16/23	-	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**1,010**
	10/09/23	-	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**852**
Dup	10/09/23	-	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**872**
	12/29/23	-	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**914**
Dup	12/29/23	-	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**908**

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TABLE 2
JR Oil, LTD. CO.
E. M. Elliott Tank Battery
Summary of Analysis of Groundwater Samples
Lea County, New Mexico

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/l)	Xylene (mg/L)	Total BTEX (mg/l)	Chloride (mg/L)
New Mexico Water Quality Control Commission Human Health Standard Maximum Allowable Concentration			**0.010 mg/L**	**0.75 mg/L**	**0.75 mg/L**	**0.62 mg/L**		**250.0 mg/L***
MW-5	09/29/16	-	<0.005	**0.0011 J**	<0.005	<0.015	**0.0011 J**	**61.8**
	12/07/16	-	<0.005	<0.005	<0.005	<0.005	<0.005	**51.6**
	03/03/17	-	<0.005	<0.005	<0.005	<0.005	<0.005	**51.2**
	06/08/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**45.8**
	08/30/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**47.2**
	11/20/17	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**52.7**
	02/21/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**51.3**
	05/24/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**54.1**
	08/24/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**51.0**
	11/15/18	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**52.2**
	02/08/19	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**48.9**
	08/07/19	-	<0.0060	<0.0050	<0.0050	<0.0050	<0.0050	**50.4**
	02/18/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00050	**51.3**
	05/04/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00050	**49.4**
	08/11/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00060	**50.2**
	11/16/20	-	<0.00060	<0.00050	<0.00050	<0.00050	<0.00060	**48.3**
	07/26/22		<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**52.1**
	12/01/22		<0.00100	<0.00100	<0.00100	<0.00300	<0.00300	**145**
	03/14/23		<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**62.9**
	05/16/23		<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**58.4**
	10/09/23		<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**51.7**
	12/29/23		<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	**46.8**

(-) Not Analyzed
NA - Not Analyzed, sample vials were broken during delivery to the laboratory
* - Other Standard for Domestic Water Supply
(J) Analyte detected below quantitation limit
MW-4 and MW-5 drilled on 9/7/16, MW-1R drilled on 09/08/16

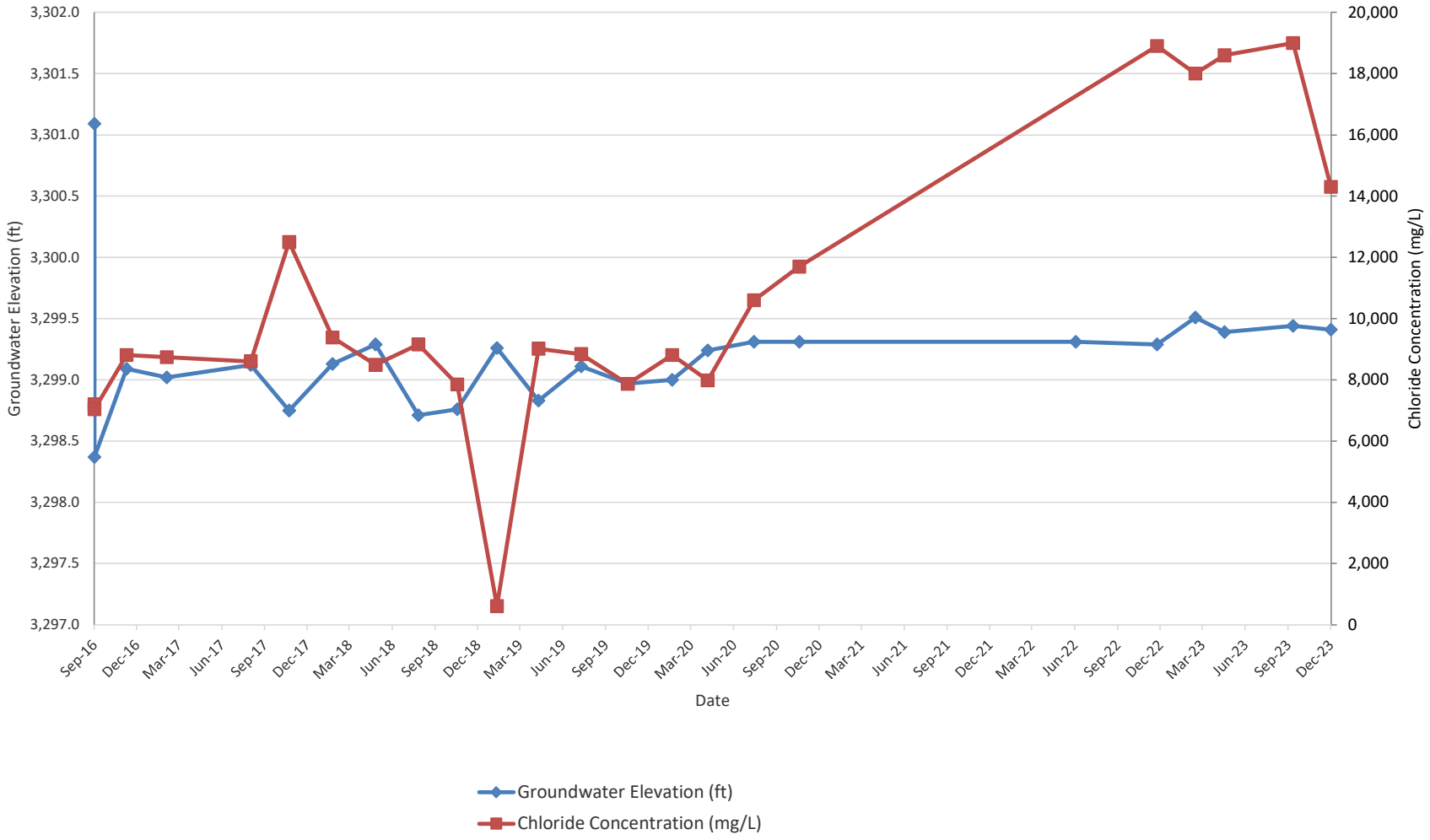
212C-MD-03053

TETRA TECH

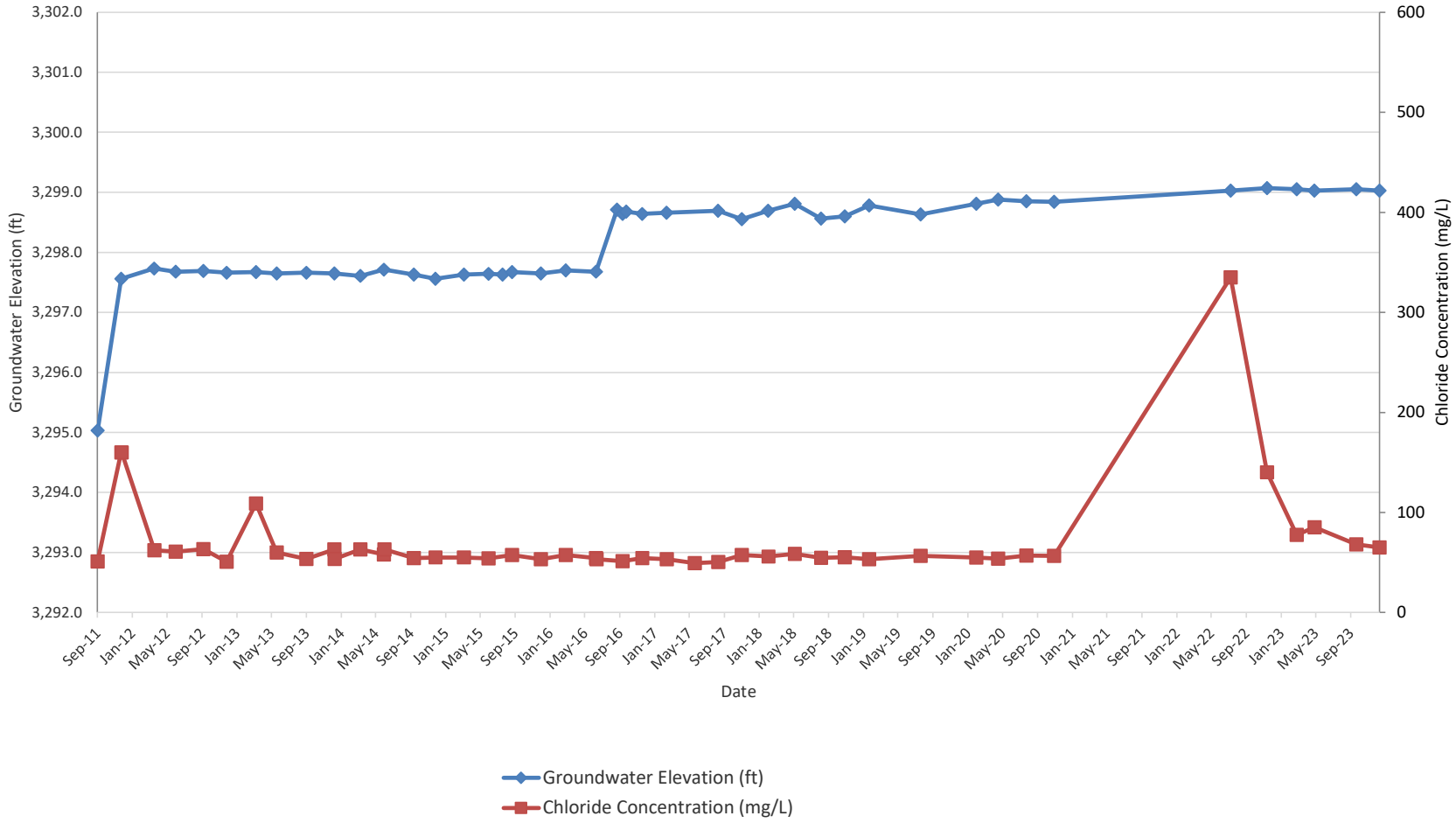
Appendix A

Graphs

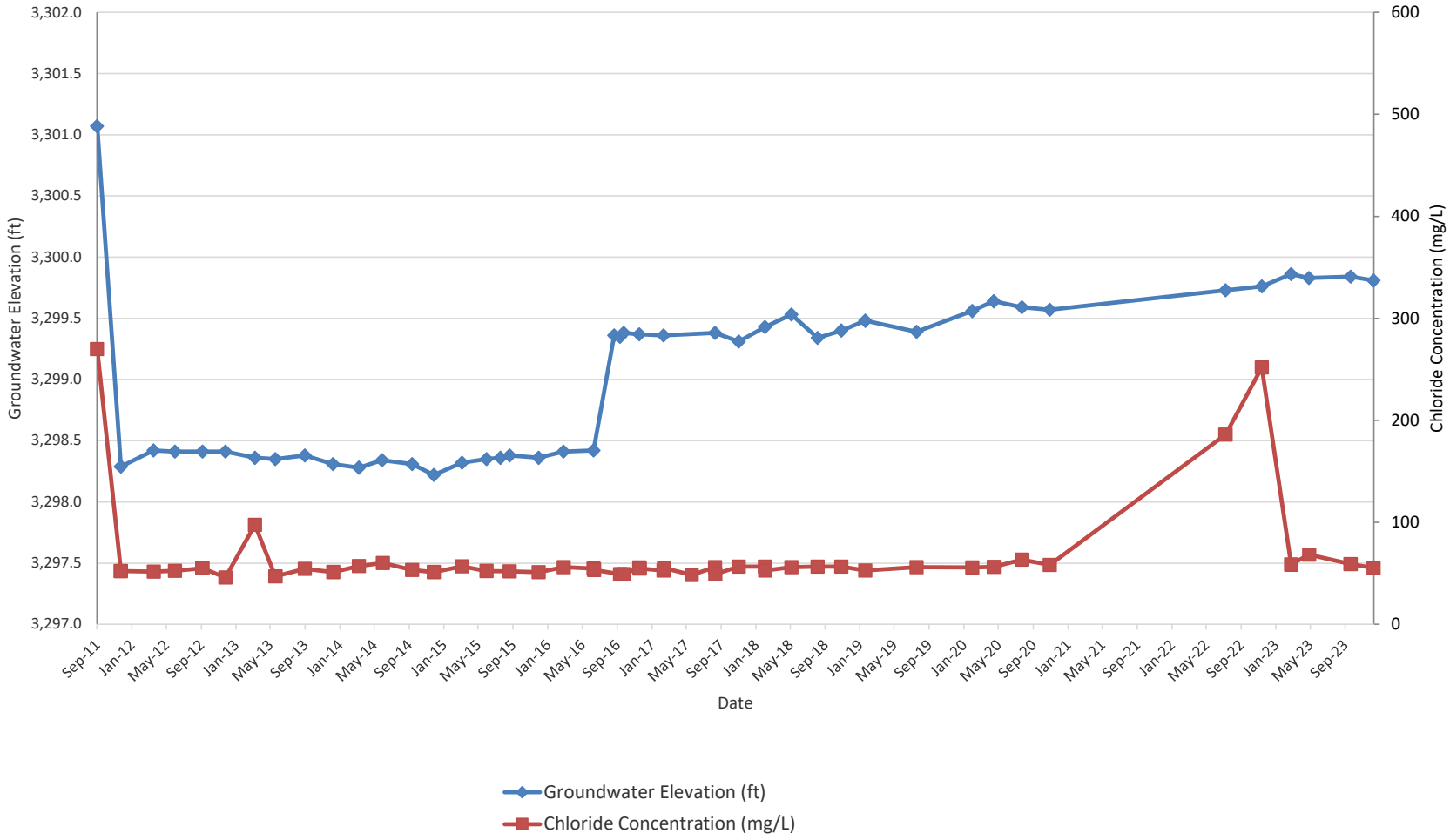
JR Oil, LTD. CO.
E. M. Elliott Tank Battery
Lea County, New Mexico
MW-1R



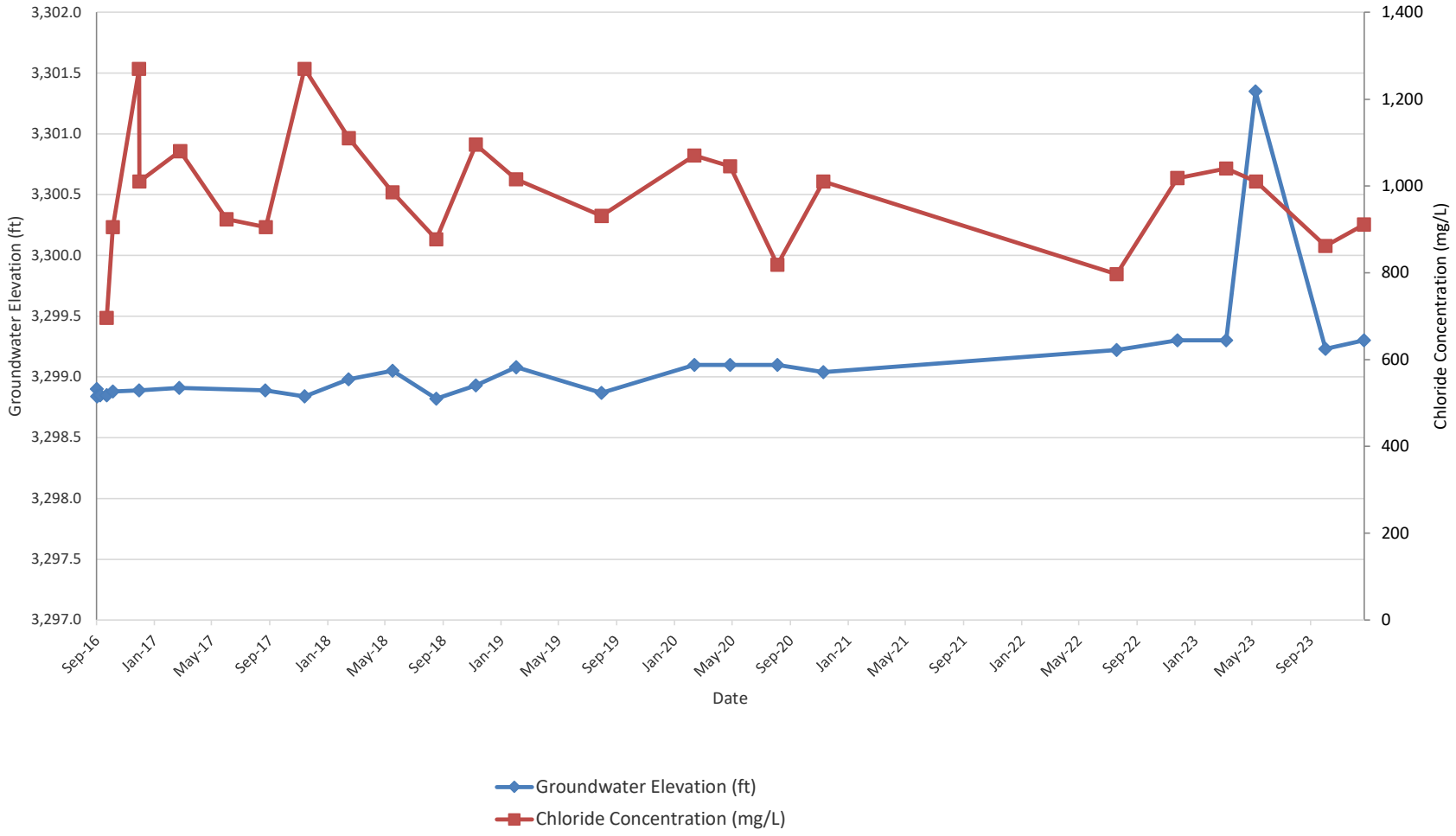
JR Oil, LTD. CO.
E. M. Elliott Tank Battery
Lea County, New Mexico
MW-2



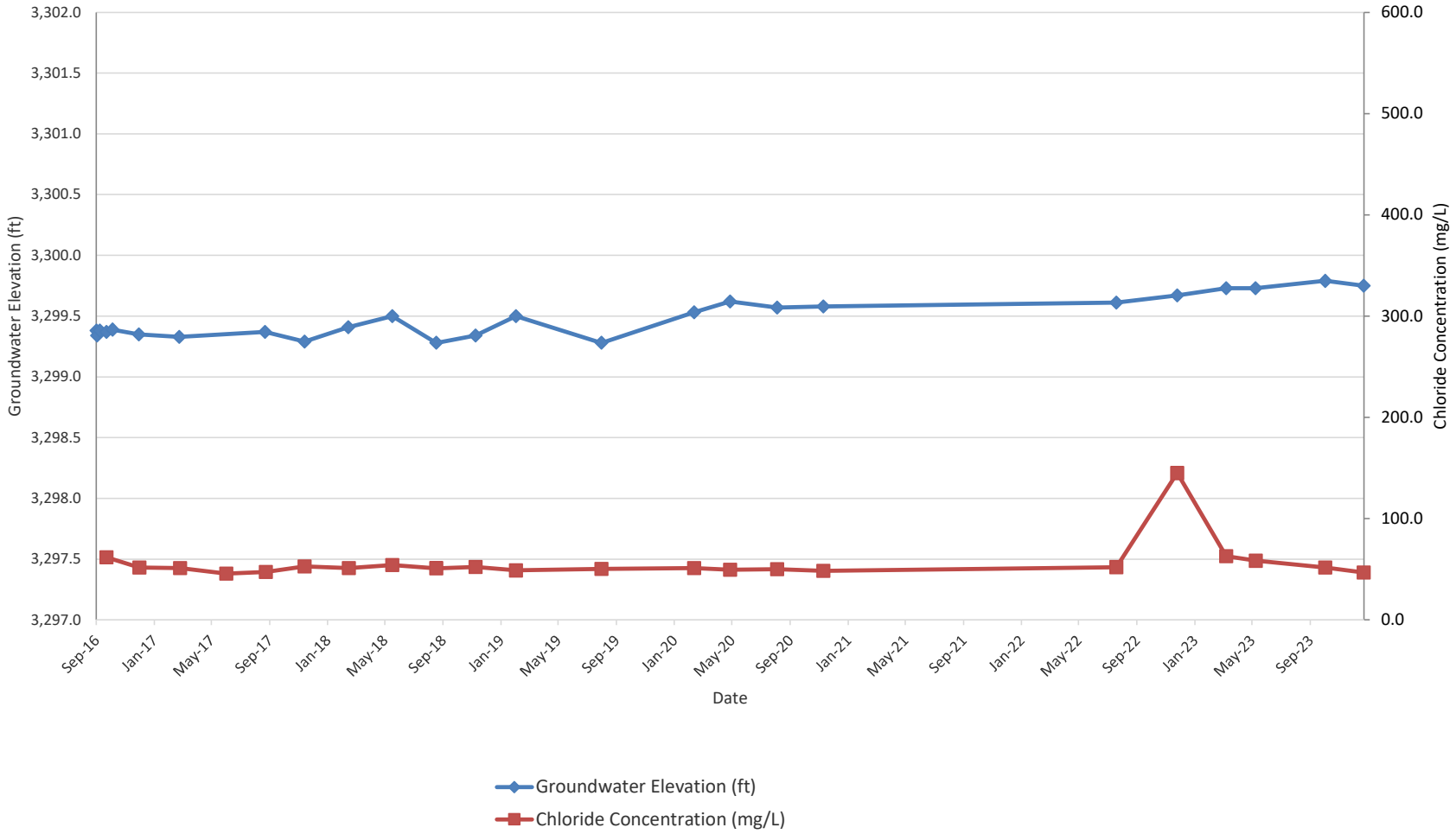
JR Oil, LTD. CO.
E. M. Elliott Tank Battery
Lea County, New Mexico
MW-3



JR Oil, LTD. CO.
E. M. Elliott Tank Battery
Lea County, New Mexico
MW-4



JR Oil, LTD. CO.
E. M. Elliott Tank Battery
Lea County, New Mexico
MW-5



TETRA TECH

Appendix B

Laboratory Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Brittany Long
Tetra Tech, Inc.
901 W Wall
Ste 100
Midland, Texas 79701

Generated 3/26/2023 7:44:04 AM

JOB DESCRIPTION

JR Oil EM Elliot TB
SDG NUMBER Lea County, NM

JOB NUMBER

880-26067-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

my EOL

Eurofins Midland

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Generated
3/26/2023 7:44:04 AM

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

Client: Tetra Tech, Inc.
Project/Site: JR Oil EM Elliot TB

Laboratory Job ID: 880-26067-1
SDG: Lea County, NM

Table of Contents

Definitions/Glossary

Client: Tetra Tech, Inc. Job ID: 880-26067-1
Project/Site: JR Oil EM Elliot TB SDG: Lea County, NM

Qualifiers

GC VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Tetra Tech, Inc.
Project/Site: JR Oil EM Elliot TB

Job ID: 880-26067-1
SDG: Lea County, NM

Job ID: 880-26067-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-26067-1

Receipt
The samples were received on 3/16/2023 4:06 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 2.2°C

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

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

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: JR Oil EM Elliot TB

Job ID: 880-26067-1
SDG: Lea County, NM

Client Sample ID: MW-4

Lab Sample ID: 880-26067-1
Matrix: Water
Date Collected: 03/14/23 13:05
Date Received: 03/16/23 16:06

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			03/23/23 01:17	1
Toluene	<0.00200	U	0.00200		mg/L			03/23/23 01:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			03/23/23 01:17	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			03/23/23 01:17	1
o-Xylene	<0.00200	U	0.00200		mg/L			03/23/23 01:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			03/23/23 01:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*		*03/23/23 01:17*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*		*03/23/23 01:17*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			03/23/23 10:35	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1040**		10.0		mg/L			03/18/23 21:49	20

Client Sample ID: MW-3

Lab Sample ID: 880-26067-2
Matrix: Water
Date Collected: 03/14/23 13:25
Date Received: 03/16/23 16:06

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			03/23/23 01:38	1
Toluene	<0.00200	U	0.00200		mg/L			03/23/23 01:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			03/23/23 01:38	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			03/23/23 01:38	1
o-Xylene	<0.00200	U	0.00200		mg/L			03/23/23 01:38	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			03/23/23 01:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*		*03/23/23 01:38*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*		*03/23/23 01:38*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			03/23/23 10:35	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**58.5**		2.50		mg/L			03/18/23 21:54	5

Client Sample ID: MW-5

Lab Sample ID: 880-26067-3
Matrix: Water
Date Collected: 03/14/23 13:00
Date Received: 03/16/23 16:06

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			03/23/23 01:58	1
Toluene	<0.00200	U	0.00200		mg/L			03/23/23 01:58	1

Eurofins Midland

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: JR Oil EM Elliot TB

Job ID: 880-26067-1
SDG: Lea County, NM

Client Sample ID: MW-5

Lab Sample ID: 880-26067-3
Date Collected: 03/14/23 13:00
Matrix: Water
Date Received: 03/16/23 16:06

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200		mg/L			03/23/23 01:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			03/23/23 01:58	1
o-Xylene	<0.00200	U	0.00200		mg/L			03/23/23 01:58	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			03/23/23 01:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*		*03/23/23 01:58*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*		*03/23/23 01:58*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			03/23/23 10:35	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**62.9**		2.50		mg/L			03/18/23 22:00	5

Client Sample ID: MW-2

Lab Sample ID: 880-26067-4
Date Collected: 03/14/23 14:55
Matrix: Water
Date Received: 03/16/23 16:06

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			03/23/23 02:19	1
Toluene	<0.00200	U	0.00200		mg/L			03/23/23 02:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			03/23/23 02:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			03/23/23 02:19	1
o-Xylene	<0.00200	U	0.00200		mg/L			03/23/23 02:19	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			03/23/23 02:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*		*03/23/23 02:19*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*		*03/23/23 02:19*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			03/23/23 10:35	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**77.6**		2.50		mg/L			03/18/23 22:05	5

Client Sample ID: Dup

Lab Sample ID: 880-26067-5
Date Collected: 03/14/23 00:00
Matrix: Water
Date Received: 03/16/23 16:06

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			03/23/23 02:39	1
Toluene	<0.00200	U	0.00200		mg/L			03/23/23 02:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			03/23/23 02:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			03/23/23 02:39	1

Eurofins Midland

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: JR Oil EM Elliot TB

Job ID: 880-26067-1
SDG: Lea County, NM

Client Sample ID: Dup

Lab Sample ID: 880-26067-5
Matrix: Water
Date Collected: 03/14/23 00:00
Date Received: 03/16/23 16:06

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/L			03/23/23 02:39	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			03/23/23 02:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*		*03/23/23 02:39*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*		*03/23/23 02:39*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			03/23/23 10:35	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1060**		10.0		mg/L			03/18/23 22:10	20

Client Sample ID: MW-1R

Lab Sample ID: 880-26067-6
Matrix: Water
Date Collected: 03/14/23 16:35
Date Received: 03/16/23 16:06

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			03/23/23 03:00	1
Toluene	<0.00200	U	0.00200		mg/L			03/23/23 03:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			03/23/23 03:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			03/23/23 03:00	1
o-Xylene	<0.00200	U	0.00200		mg/L			03/23/23 03:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			03/23/23 03:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*		*03/23/23 03:00*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*		*03/23/23 03:00*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			03/23/23 10:35	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**18000**		100		mg/L			03/18/23 22:15	200

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: JR Oil EM Elliot TB

Job ID: 880-26067-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-26067-1	MW-4	106	109										
880-26067-2	MW-3	108	109										
880-26067-3	MW-5	112	109										
880-26067-4	MW-2	110	109										
880-26067-5	Dup	112	109										
880-26067-6	MW-1R	110	110										
890-4282-A-1 MS	Matrix Spike	106	109										
890-4282-A-1 MSD	Matrix Spike Duplicate	109	113										
LCS 880-49161/34	Lab Control Sample	107	111										
LCSD 880-49161/35	Lab Control Sample Dup	104	111										
MB 880-48983/5-A	Method Blank	98	106										
MB 880-49161/39	Method Blank	99	104										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: JR Oil EM Elliot TB

Job ID: 880-26067-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-48983/5-A
Matrix: Water
Analysis Batch: 49161

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48983

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L		03/20/23 11:32	03/22/23 12:11	1
Toluene	<0.00200	U	0.00200		mg/L		03/20/23 11:32	03/22/23 12:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/L		03/20/23 11:32	03/22/23 12:11	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L		03/20/23 11:32	03/22/23 12:11	1
o-Xylene	<0.00200	U	0.00200		mg/L		03/20/23 11:32	03/22/23 12:11	1
Xylenes, Total	<0.00400	U	0.00400		mg/L		03/20/23 11:32	03/22/23 12:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*03/20/23 11:32*	*03/22/23 12:11*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*03/20/23 11:32*	*03/22/23 12:11*	*1*

Lab Sample ID: MB 880-49161/39
Matrix: Water
Analysis Batch: 49161

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			03/22/23 23:47	1
Toluene	<0.00200	U	0.00200		mg/L			03/22/23 23:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			03/22/23 23:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			03/22/23 23:47	1
o-Xylene	<0.00200	U	0.00200		mg/L			03/22/23 23:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			03/22/23 23:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*03/22/23 23:47*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*		*03/22/23 23:47*	*1*

Lab Sample ID: LCS 880-49161/34
Matrix: Water
Analysis Batch: 49161

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1025		mg/L		103	70 - 130		
Toluene			0.100	0.1034		mg/L		103	70 - 130		
Ethylbenzene			0.100	0.08953		mg/L		90	70 - 130		
m-Xylene & p-Xylene			0.200	0.1763		mg/L		88	70 - 130		
o-Xylene			0.100	0.08993		mg/L		90	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: LCSD 880-49161/35
Matrix: Water
Analysis Batch: 49161

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			0.100	0.08915		mg/L		89	70 - 130	14	20

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: JR Oil EM Elliot TB

Job ID: 880-26067-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-49161/35
Matrix: Water
Analysis Batch: 49161

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
Toluene			0.100	0.09279		mg/L		93	70 - 130	11	20
Ethylbenzene			0.100	0.08298		mg/L		83	70 - 130	8	20
m-Xylene & p-Xylene			0.200	0.1634		mg/L		82	70 - 130	8	20
o-Xylene			0.100	0.08406		mg/L		84	70 - 130	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: 890-4282-A-1 MS
Matrix: Water
Analysis Batch: 49161

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.1019		mg/L		102	70 - 130
Toluene	<0.00200	U	0.100	0.1045		mg/L		105	70 - 130
Ethylbenzene	<0.00200	U	0.100	0.08769		mg/L		88	70 - 130
m-Xylene & p-Xylene	<0.00400	U	0.200	0.1707		mg/L		85	70 - 130
o-Xylene	<0.00200	U	0.100	0.08857		mg/L		89	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: 890-4282-A-1 MSD
Matrix: Water
Analysis Batch: 49161

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.09906		mg/L		99	70 - 130	3	25
Toluene	<0.00200	U	0.100	0.1011		mg/L		101	70 - 130	3	25
Ethylbenzene	<0.00200	U	0.100	0.08632		mg/L		86	70 - 130	2	25
m-Xylene & p-Xylene	<0.00400	U	0.200	0.1700		mg/L		85	70 - 130	0	25
o-Xylene	<0.00200	U	0.100	0.08807		mg/L		88	70 - 130	1	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-48893/3
Matrix: Water
Analysis Batch: 48893

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			03/18/23 19:48	1

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: JR Oil EM Elliot TB

Job ID: 880-26067-1
SDG: Lea County, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-48893/4
Matrix: Water
Analysis Batch: 48893

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			25.0	26.22		mg/L		105	90 - 110		

Lab Sample ID: LCSD 880-48893/5
Matrix: Water
Analysis Batch: 48893

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			25.0	26.00		mg/L		104	90 - 110	1	20

Lab Sample ID: 880-25931-A-6 MS
Matrix: Water
Analysis Batch: 48893

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	2270		1250	3520		mg/L		100	90 - 110		

Lab Sample ID: 880-25931-A-6 MSD
Matrix: Water
Analysis Batch: 48893

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2270		1250	3509		mg/L		99	90 - 110	0	20

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: JR Oil EM Elliot TB

Job ID: 880-26067-1
SDG: Lea County, NM

GC VOA

Prep Batch: 48983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-48983/5-A	Method Blank	Total/NA	Water	5035	

Analysis Batch: 49161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26067-1	MW-4	Total/NA	Water	8021B	
880-26067-2	MW-3	Total/NA	Water	8021B	
880-26067-3	MW-5	Total/NA	Water	8021B	
880-26067-4	MW-2	Total/NA	Water	8021B	
880-26067-5	Dup	Total/NA	Water	8021B	
880-26067-6	MW-1R	Total/NA	Water	8021B	
MB 880-48983/5-A	Method Blank	Total/NA	Water	8021B	48983
MB 880-49161/39	Method Blank	Total/NA	Water	8021B	
LCS 880-49161/34	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-49161/35	Lab Control Sample Dup	Total/NA	Water	8021B	
890-4282-A-1 MS	Matrix Spike	Total/NA	Water	8021B	
890-4282-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8021B	

Analysis Batch: 49303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26067-1	MW-4	Total/NA	Water	Total BTEX	
880-26067-2	MW-3	Total/NA	Water	Total BTEX	
880-26067-3	MW-5	Total/NA	Water	Total BTEX	
880-26067-4	MW-2	Total/NA	Water	Total BTEX	
880-26067-5	Dup	Total/NA	Water	Total BTEX	
880-26067-6	MW-1R	Total/NA	Water	Total BTEX	

HPLC/IC

Analysis Batch: 48893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26067-1	MW-4	Total/NA	Water	300.0	
880-26067-2	MW-3	Total/NA	Water	300.0	
880-26067-3	MW-5	Total/NA	Water	300.0	
880-26067-4	MW-2	Total/NA	Water	300.0	
880-26067-5	Dup	Total/NA	Water	300.0	
880-26067-6	MW-1R	Total/NA	Water	300.0	
MB 880-48893/3	Method Blank	Total/NA	Water	300.0	
LCS 880-48893/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 880-48893/5	Lab Control Sample Dup	Total/NA	Water	300.0	
880-25931-A-6 MS	Matrix Spike	Total/NA	Water	300.0	
880-25931-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: JR Oil EM Elliot TB

Job ID: 880-26067-1
SDG: Lea County, NM

Client Sample ID: MW-4
Date Collected: 03/14/23 13:05
Date Received: 03/16/23 16:06

Lab Sample ID: 880-26067-1
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	8021B		1	5 mL	5 mL	49161	03/23/23 01:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49303	03/23/23 10:35	AJ	EET MID
Total/NA	Analysis	300.0		20	10 mL	10 mL	48893	03/18/23 21:49	SMC	EET MID

Client Sample ID: MW-3
Date Collected: 03/14/23 13:25
Date Received: 03/16/23 16:06

Lab Sample ID: 880-26067-2
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	8021B		1	5 mL	5 mL	49161	03/23/23 01:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49303	03/23/23 10:35	AJ	EET MID
Total/NA	Analysis	300.0		5	10 mL	10 mL	48893	03/18/23 21:54	SMC	EET MID

Client Sample ID: MW-5
Date Collected: 03/14/23 13:00
Date Received: 03/16/23 16:06

Lab Sample ID: 880-26067-3
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	8021B		1	5 mL	5 mL	49161	03/23/23 01:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49303	03/23/23 10:35	AJ	EET MID
Total/NA	Analysis	300.0		5	10 mL	10 mL	48893	03/18/23 22:00	SMC	EET MID

Client Sample ID: MW-2
Date Collected: 03/14/23 14:55
Date Received: 03/16/23 16:06

Lab Sample ID: 880-26067-4
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	8021B		1	5 mL	5 mL	49161	03/23/23 02:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49303	03/23/23 10:35	AJ	EET MID
Total/NA	Analysis	300.0		5	10 mL	10 mL	48893	03/18/23 22:05	SMC	EET MID

Client Sample ID: Dup
Date Collected: 03/14/23 00:00
Date Received: 03/16/23 16:06

Lab Sample ID: 880-26067-5
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	8021B		1	5 mL	5 mL	49161	03/23/23 02:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49303	03/23/23 10:35	AJ	EET MID
Total/NA	Analysis	300.0		20	10 mL	10 mL	48893	03/18/23 22:10	SMC	EET MID

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: JR Oil EM Elliot TB

Job ID: 880-26067-1
SDG: Lea County, NM

Client Sample ID: MW-1R

Date Collected: 03/14/23 16:35
Date Received: 03/16/23 16:06

Lab Sample ID: 880-26067-6

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	8021B		1	5 mL	5 mL	49161	03/23/23 03:00	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49303	03/23/23 10:35	AJ	EET MID
Total/NA	Analysis	300.0		200	10 mL	10 mL	48893	03/18/23 22:15	SMC	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: JR Oil EM Elliot TB

Job ID: 880-26067-1
SDG: Lea County, NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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
Total BTEX		Water	Total BTEX

Method Summary

Client: Tetra Tech, Inc.
Project/Site: JR Oil EM Elliot TB

Job ID: 880-26067-1
SDG: Lea County, NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5030B	Purge and Trap	SW846	EET MID

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: JR Oil EM Elliot TB

Job ID: 880-26067-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-26067-1	MW-4	Water	03/14/23 13:05	03/16/23 16:06
880-26067-2	MW-3	Water	03/14/23 13:25	03/16/23 16:06
880-26067-3	MW-5	Water	03/14/23 13:00	03/16/23 16:06
880-26067-4	MW-2	Water	03/14/23 14:55	03/16/23 16:06
880-26067-5	Dup	Water	03/14/23 00:00	03/16/23 16:06
880-26067-6	MW-1R	Water	03/14/23 16:35	03/16/23 16:06

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

901 West Wall Street, Suite 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

26067

Client Name: JR Oil	**Site Manager:** Brittany. Long
Project Name: JR Oil EM Elliot TB	**Contact Info:** Brittany.Long@tetratech.com
Project Location: (county, state) Lea County, NM	**Project #:** 212C-MD-03053
Invoice to: Tetra Tech 901 West Wall Street 79701	
Receiving Laboratory: Xenco	**Sampler Signature:** Matthew Castrejon
Comments:	

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B / BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO DRO ORO MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol 8260B / 624	GC/MS Semi Vol 8270C/625	PCBs 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R	HOLD
	MW-4	3-14-23	1305	X		X		X		4		X														X					
	MW-3	3-14-23	1525	X		X		X		4		X														X					
	MW-5	3-15-23	1300	X		X		X		4		X														X					
	MW-2	3-15-23	1455	X		X		X		4		X														X					
	Dup	—	—	X		X		X		4		X														X					
	MW-1R	3-15-23	1635	X		X		X		4		X														X					

880-26067 Chain of Custody

Relinquished by	Date	Time	Received by	Date	Time
Matthew Castrejon	3-16-23	1606	[signature]	3/16/23	1609
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by	Date	Time

ORIGINAL COPY

LAB USE ONLY

Sample Temperature 25/22

- [x] Standard
- [ ] RUSH Same Day 24 hr 48 hr 72 hr
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking # _____

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 880-26067-1
SDG Number: Lea County, NM

Login Number: 26067
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

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	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Brittany Long
Tetra Tech, Inc.
901 W Wall
Ste 100
Midland, Texas 79701

Generated 5/31/2023 8:53:52 AM

JOB DESCRIPTION

EM Elliot
SDG NUMBER Lea County, NM

JOB NUMBER

880-28535-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Eurofins Midland

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.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Generated
5/31/2023 8:53:52 AM

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

Client: Tetra Tech, Inc.
Project/Site: EM Elliot

Laboratory Job ID: 880-28535-1
SDG: Lea County, NM

Table of Contents

Definitions/Glossary

Client: Tetra Tech, Inc. Job ID: 880-28535-1
Project/Site: EM Elliot SDG: Lea County, NM

Qualifiers

GC VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Tetra Tech, Inc.
Project/Site: EM Elliot

Job ID: 880-28535-1
SDG: Lea County, NM

Job ID: 880-28535-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-28535-1

Receipt
The samples were received on 5/17/2023 12:11 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 3.0°C

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-53494 and analytical batch 880-53673 was outside the upper control limits.

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

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

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: EM Elliot

Job ID: 880-28535-1
SDG: Lea County, NM

Client Sample ID: MW-4

Lab Sample ID: 880-28535-1
Matrix: Water
Date Collected: 05/15/23 11:45
Date Received: 05/17/23 12:11

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			05/25/23 14:01	1
Toluene	<0.00200	U	0.00200		mg/L			05/25/23 14:01	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			05/25/23 14:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			05/25/23 14:01	1
o-Xylene	<0.00200	U	0.00200		mg/L			05/25/23 14:01	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			05/25/23 14:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*		*05/25/23 14:01*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*		*05/25/23 14:01*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			05/25/23 15:30	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**977**		10.0		mg/L			05/17/23 21:21	20

Client Sample ID: MW-3

Lab Sample ID: 880-28535-2
Matrix: Water
Date Collected: 05/15/23 14:20
Date Received: 05/17/23 12:11

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			05/25/23 14:21	1
Toluene	<0.00200	U	0.00200		mg/L			05/25/23 14:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			05/25/23 14:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			05/25/23 14:21	1
o-Xylene	<0.00200	U	0.00200		mg/L			05/25/23 14:21	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			05/25/23 14:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*		*05/25/23 14:21*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*		*05/25/23 14:21*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			05/25/23 15:30	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**68.1**		2.50		mg/L			05/17/23 21:30	5

Client Sample ID: MW-5

Lab Sample ID: 880-28535-3
Matrix: Water
Date Collected: 05/15/23 15:35
Date Received: 05/17/23 12:11

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			05/25/23 14:41	1
Toluene	<0.00200	U	0.00200		mg/L			05/25/23 14:41	1

Eurofins Midland

Client Sample Results

Client: Tetra Tech, Inc. Job ID: 880-28535-1
Project/Site: EM Elliot SDG: Lea County, NM

Client Sample ID: MW-5 Lab Sample ID: 880-28535-3

Date Collected: 05/15/23 15:35 **Matrix: Water**
Date Received: 05/17/23 12:11

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200		mg/L			05/25/23 14:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			05/25/23 14:41	1
o-Xylene	<0.00200	U	0.00200		mg/L			05/25/23 14:41	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			05/25/23 14:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*		*05/25/23 14:41*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*		*05/25/23 14:41*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			05/25/23 15:30	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**58.4**		2.50		mg/L			05/17/23 21:38	5

Client Sample ID: MW-2 Lab Sample ID: 880-28535-4

Date Collected: 05/16/23 12:30 **Matrix: Water**
Date Received: 05/17/23 12:11

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			05/19/23 03:18	1
Toluene	<0.00200	U	0.00200		mg/L			05/19/23 03:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			05/19/23 03:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			05/19/23 03:18	1
o-Xylene	<0.00200	U	0.00200		mg/L			05/19/23 03:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			05/19/23 03:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*		*05/19/23 03:18*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*		*05/19/23 03:18*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			05/19/23 10:46	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**85.2**		2.50		mg/L			05/17/23 21:54	5

Client Sample ID: MW-1R Lab Sample ID: 880-28535-5

Date Collected: 05/16/23 14:00 **Matrix: Water**
Date Received: 05/17/23 12:11

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			05/19/23 03:39	1
Toluene	<0.00200	U	0.00200		mg/L			05/19/23 03:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			05/19/23 03:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			05/19/23 03:39	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: EM Elliot

Job ID: 880-28535-1
SDG: Lea County, NM

Client Sample ID: MW-1R

Lab Sample ID: 880-28535-5
Matrix: Water
Date Collected: 05/16/23 14:00
Date Received: 05/17/23 12:11

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/L			05/19/23 03:39	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			05/19/23 03:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*05/19/23 03:39*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*		*05/19/23 03:39*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			05/19/23 10:46	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**18600**		100		mg/L			05/17/23 21:59	200

Client Sample ID: DUP

Lab Sample ID: 880-28535-6
Matrix: Water
Date Collected: 05/16/23 00:00
Date Received: 05/17/23 12:11

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			05/19/23 03:59	1
Toluene	<0.00200	U	0.00200		mg/L			05/19/23 03:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			05/19/23 03:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			05/19/23 03:59	1
o-Xylene	<0.00200	U	0.00200		mg/L			05/19/23 03:59	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			05/19/23 03:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*		*05/19/23 03:59*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*		*05/19/23 03:59*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			05/19/23 10:46	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1010**		10.0		mg/L			05/17/23 22:22	20

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: EM Elliot

Job ID: 880-28535-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-28390-A-5 MB	Method Blank	78	96										
880-28535-1	MW-4	89	95										
880-28535-2	MW-3	92	97										
880-28535-3	MW-5	89	99										
880-28535-4	MW-2	106	100										
880-28535-4 MS	MW-2	110	102										
880-28535-4 MSD	MW-2	115	110										
880-28535-5	MW-1R	103	92										
880-28535-6	DUP	107	86										
880-28779-C-1 MS	Matrix Spike	103	105										
880-28779-C-1 MSD	Matrix Spike Duplicate	97	91										
LCS 880-53673/34	Lab Control Sample	113	108										
LCS 880-54127/3	Lab Control Sample	94	103										
LCSD 880-53673/35	Lab Control Sample Dup	107	107										
LCSD 880-54127/4	Lab Control Sample Dup	100	88										
MB 880-53494/5-A	Method Blank	68 S1-	85										
MB 880-53673/39	Method Blank	66 S1-	79										
MB 880-54127/8	Method Blank	87	94										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: EM Elliot

Job ID: 880-28535-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-53494/5-A
Matrix: Water
Analysis Batch: 53673

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 53494

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L		05/16/23 14:55	05/18/23 16:09	1
Toluene	<0.00200	U	0.00200		mg/L		05/16/23 14:55	05/18/23 16:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/L		05/16/23 14:55	05/18/23 16:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L		05/16/23 14:55	05/18/23 16:09	1
o-Xylene	<0.00200	U	0.00200		mg/L		05/16/23 14:55	05/18/23 16:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/L		05/16/23 14:55	05/18/23 16:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*05/16/23 14:55*	*05/18/23 16:09*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*05/16/23 14:55*	*05/18/23 16:09*	*1*

Lab Sample ID: MB 880-53673/39
Matrix: Water
Analysis Batch: 53673

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			05/19/23 02:57	1
Toluene	<0.00200	U	0.00200		mg/L			05/19/23 02:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			05/19/23 02:57	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			05/19/23 02:57	1
o-Xylene	<0.00200	U	0.00200		mg/L			05/19/23 02:57	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			05/19/23 02:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*66*	*S1-*	*70 - 130*		*05/19/23 02:57*	*1*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*		*05/19/23 02:57*	*1*

Lab Sample ID: LCS 880-53673/34
Matrix: Water
Analysis Batch: 53673

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1267		mg/L		127	70 - 130
Toluene	0.100	0.1072		mg/L		107	70 - 130
Ethylbenzene	0.100	0.1118		mg/L		112	70 - 130
m-Xylene & p-Xylene	0.200	0.2335		mg/L		117	70 - 130
o-Xylene	0.100	0.1187		mg/L		119	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: LCSD 880-53673/35
Matrix: Water
Analysis Batch: 53673

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	0.100	0.1186		mg/L		119	70 - 130	7	20

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: EM Elliot

Job ID: 880-28535-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-53673/35
Matrix: Water
Analysis Batch: 53673

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
Toluene			0.100	0.1073		mg/L		107	70 - 130	0	20
Ethylbenzene			0.100	0.1065		mg/L		106	70 - 130	5	20
m-Xylene & p-Xylene			0.200	0.2231		mg/L		112	70 - 130	5	20
o-Xylene			0.100	0.1134		mg/L		113	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: 880-28535-4 MS
Matrix: Water
Analysis Batch: 53673

Client Sample ID: MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.1148		mg/L		115	70 - 130
Toluene	<0.00200	U	0.100	0.1058		mg/L		105	70 - 130
Ethylbenzene	<0.00200	U	0.100	0.1094		mg/L		109	70 - 130
m-Xylene & p-Xylene	<0.00400	U	0.200	0.2267		mg/L		113	70 - 130
o-Xylene	<0.00200	U	0.100	0.1157		mg/L		116	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 880-28535-4 MSD
Matrix: Water
Analysis Batch: 53673

Client Sample ID: MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.1162		mg/L		116	70 - 130	1	25
Toluene	<0.00200	U	0.100	0.1020		mg/L		102	70 - 130	4	25
Ethylbenzene	<0.00200	U	0.100	0.1093		mg/L		109	70 - 130	0	25
m-Xylene & p-Xylene	<0.00400	U	0.200	0.2275		mg/L		114	70 - 130	0	25
o-Xylene	<0.00200	U	0.100	0.1159		mg/L		116	70 - 130	0	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: 880-28390-A-5 MB
Matrix: Water
Analysis Batch: 54127

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			05/25/23 12:59	1
Toluene	<0.00200	U	0.00200		mg/L			05/25/23 12:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			05/25/23 12:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			05/25/23 12:59	1

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: EM Elliot

Job ID: 880-28535-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-28390-A-5 MB
Matrix: Water
Analysis Batch: 54127

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/L			05/25/23 12:59	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			05/25/23 12:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*		*05/25/23 12:59*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*		*05/25/23 12:59*	*1*

Lab Sample ID: MB 880-54127/8
Matrix: Water
Analysis Batch: 54127

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			05/25/23 11:36	1
Toluene	<0.00200	U	0.00200		mg/L			05/25/23 11:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			05/25/23 11:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			05/25/23 11:36	1
o-Xylene	<0.00200	U	0.00200		mg/L			05/25/23 11:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			05/25/23 11:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*		*05/25/23 11:36*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*		*05/25/23 11:36*	*1*

Lab Sample ID: LCS 880-54127/3
Matrix: Water
Analysis Batch: 54127

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1056		mg/L		106	70 - 130		
Toluene			0.100	0.1012		mg/L		101	70 - 130		
Ethylbenzene			0.100	0.09415		mg/L		94	70 - 130		
m-Xylene & p-Xylene			0.200	0.1898		mg/L		95	70 - 130		
o-Xylene			0.100	0.08704		mg/L		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-54127/4
Matrix: Water
Analysis Batch: 54127

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			0.100	0.1192		mg/L		119	70 - 130	12	20
Toluene			0.100	0.1036		mg/L		104	70 - 130	2	20
Ethylbenzene			0.100	0.1076		mg/L		108	70 - 130	13	20
m-Xylene & p-Xylene			0.200	0.2169		mg/L		108	70 - 130	13	20
o-Xylene			0.100	0.09938		mg/L		99	70 - 130	13	20

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: EM Elliot

Job ID: 880-28535-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	88		70 - 130

Lab Sample ID: 880-28779-C-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54127

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.1258		mg/L		126	70 - 130
Toluene	<0.00200	U	0.100	0.1106		mg/L		109	70 - 130
Ethylbenzene	<0.00200	U	0.100	0.1134		mg/L		113	70 - 130
m-Xylene & p-Xylene	<0.00400	U	0.200	0.2253		mg/L		113	70 - 130
o-Xylene	<0.00200	U	0.100	0.1019		mg/L		102	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 880-28779-C-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 54127

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.1269		mg/L		127	70 - 130	1	25
Toluene	<0.00200	U	0.100	0.1147		mg/L		114	70 - 130	4	25
Ethylbenzene	<0.00200	U	0.100	0.1072		mg/L		107	70 - 130	6	25
m-Xylene & p-Xylene	<0.00400	U	0.200	0.2178		mg/L		109	70 - 130	3	25
o-Xylene	<0.00200	U	0.100	0.1002		mg/L		100	70 - 130	2	25

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-53618/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 53618

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.500	U	0.500		mg/L			05/17/23 19:11	1

Lab Sample ID: LCS 880-53618/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 53618

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	25.81		mg/L		103	90 - 110

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: EM Elliot

Job ID: 880-28535-1
SDG: Lea County, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-53618/5
Matrix: Water
Analysis Batch: 53618

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			25.0	25.95		mg/L		104	90 - 110	1	20

Lab Sample ID: 880-28535-3 MS
Matrix: Water
Analysis Batch: 53618

Client Sample ID: MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	58.4		125	187.2		mg/L		103	90 - 110

Lab Sample ID: 880-28535-3 MSD
Matrix: Water
Analysis Batch: 53618

Client Sample ID: MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	58.4		125	187.9		mg/L		104	90 - 110	0	20

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: EM Elliot

Job ID: 880-28535-1
SDG: Lea County, NM

GC VOA

Prep Batch: 53494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-53494/5-A	Method Blank	Total/NA	Water	5035	

Analysis Batch: 53673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28535-4	MW-2	Total/NA	Water	8021B	
880-28535-5	MW-1R	Total/NA	Water	8021B	
880-28535-6	DUP	Total/NA	Water	8021B	
MB 880-53494/5-A	Method Blank	Total/NA	Water	8021B	53494
MB 880-53673/39	Method Blank	Total/NA	Water	8021B	
LCS 880-53673/34	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-53673/35	Lab Control Sample Dup	Total/NA	Water	8021B	
880-28535-4 MS	MW-2	Total/NA	Water	8021B	
880-28535-4 MSD	MW-2	Total/NA	Water	8021B	

Analysis Batch: 53762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28535-1	MW-4	Total/NA	Water	Total BTEX	
880-28535-2	MW-3	Total/NA	Water	Total BTEX	
880-28535-3	MW-5	Total/NA	Water	Total BTEX	
880-28535-4	MW-2	Total/NA	Water	Total BTEX	
880-28535-5	MW-1R	Total/NA	Water	Total BTEX	
880-28535-6	DUP	Total/NA	Water	Total BTEX	

Analysis Batch: 54127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28535-1	MW-4	Total/NA	Water	8021B	
880-28535-2	MW-3	Total/NA	Water	8021B	
880-28535-3	MW-5	Total/NA	Water	8021B	
880-28390-A-5 MB	Method Blank	Total/NA	Water	8021B	
MB 880-54127/8	Method Blank	Total/NA	Water	8021B	
LCS 880-54127/3	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-54127/4	Lab Control Sample Dup	Total/NA	Water	8021B	
880-28779-C-1 MS	Matrix Spike	Total/NA	Water	8021B	
880-28779-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8021B	

HPLC/IC

Analysis Batch: 53618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-28535-1	MW-4	Total/NA	Water	300.0	
880-28535-2	MW-3	Total/NA	Water	300.0	
880-28535-3	MW-5	Total/NA	Water	300.0	
880-28535-4	MW-2	Total/NA	Water	300.0	
880-28535-5	MW-1R	Total/NA	Water	300.0	
880-28535-6	DUP	Total/NA	Water	300.0	
MB 880-53618/3	Method Blank	Total/NA	Water	300.0	
LCS 880-53618/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 880-53618/5	Lab Control Sample Dup	Total/NA	Water	300.0	
880-28535-3 MS	MW-5	Total/NA	Water	300.0	
880-28535-3 MSD	MW-5	Total/NA	Water	300.0	

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: EM Elliot

Job ID: 880-28535-1
SDG: Lea County, NM

Client Sample ID: MW-4
Date Collected: 05/15/23 11:45
Date Received: 05/17/23 12:11

Lab Sample ID: 880-28535-1
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	8021B		1	5 mL	5 mL	54127	05/25/23 14:01	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			53762	05/25/23 15:30	SM	EET MID
Total/NA	Analysis	300.0		20	10 mL	10 mL	53618	05/17/23 21:21	CH	EET MID

Client Sample ID: MW-3
Date Collected: 05/15/23 14:20
Date Received: 05/17/23 12:11

Lab Sample ID: 880-28535-2
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	8021B		1	5 mL	5 mL	54127	05/25/23 14:21	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			53762	05/25/23 15:30	SM	EET MID
Total/NA	Analysis	300.0		5	10 mL	10 mL	53618	05/17/23 21:30	CH	EET MID

Client Sample ID: MW-5
Date Collected: 05/15/23 15:35
Date Received: 05/17/23 12:11

Lab Sample ID: 880-28535-3
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	8021B		1	5 mL	5 mL	54127	05/25/23 14:41	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			53762	05/25/23 15:30	SM	EET MID
Total/NA	Analysis	300.0		5	10 mL	10 mL	53618	05/17/23 21:38	CH	EET MID

Client Sample ID: MW-2
Date Collected: 05/16/23 12:30
Date Received: 05/17/23 12:11

Lab Sample ID: 880-28535-4
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	8021B		1	5 mL	5 mL	53673	05/19/23 03:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53762	05/19/23 10:46	SM	EET MID
Total/NA	Analysis	300.0		5	10 mL	10 mL	53618	05/17/23 21:54	CH	EET MID

Client Sample ID: MW-1R
Date Collected: 05/16/23 14:00
Date Received: 05/17/23 12:11

Lab Sample ID: 880-28535-5
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	8021B		1	5 mL	5 mL	53673	05/19/23 03:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53762	05/19/23 10:46	SM	EET MID
Total/NA	Analysis	300.0		200	10 mL	10 mL	53618	05/17/23 21:59	CH	EET MID

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: EM Elliot

Job ID: 880-28535-1
SDG: Lea County, NM

Client Sample ID: DUP

Date Collected: 05/16/23 00:00
Date Received: 05/17/23 12:11

Lab Sample ID: 880-28535-6

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	8021B		1	5 mL	5 mL	53673	05/19/23 03:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53762	05/19/23 10:46	SM	EET MID
Total/NA	Analysis	300.0		20	10 mL	10 mL	53618	05/17/23 22:22	CH	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: EM Elliot

Job ID: 880-28535-1
SDG: Lea County, NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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
Total BTEX		Water	Total BTEX

Method Summary

Client: Tetra Tech, Inc.
Project/Site: EM Elliot

Job ID: 880-28535-1
SDG: Lea County, NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5030B	Purge and Trap	SW846	EET MID

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: EM Elliot

Job ID: 880-28535-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-28535-1	MW-4	Water	05/15/23 11:45	05/17/23 12:11
880-28535-2	MW-3	Water	05/15/23 14:20	05/17/23 12:11
880-28535-3	MW-5	Water	05/15/23 15:35	05/17/23 12:11
880-28535-4	MW-2	Water	05/16/23 12:30	05/17/23 12:11
880-28535-5	MW-1R	Water	05/16/23 14:00	05/17/23 12:11
880-28535-6	DUP	Water	05/16/23 00:00	05/17/23 12:11

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

901 West Wall Street, Suite 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

880-28535 Chain of Custody

Client Name:	JR Oil	**Site Manager:**	Brittany Long
Project Name:	EM Elliot	**Contact Info:**	Brittany Long@tetratech.com
Project Location: (county, state)	Lea County, NM	**Project #:**	212C-MD-03053
Invoice to:	Tetra Tech, Inc		
Receiving Laboratory:	Xenco	**Sampler Signature:**	Matthew Castrejon
Comments:			

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE (YEAR 2023)	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO DRO - ORO MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol 8260B / 624	GC/MS Semi Vol 8270C/625	PCB s 8082 / 608	NORM	PLM (Asbestos)	Chloride 300 0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R	HOLD
	MW-4	05/15/23	1145	X		X		X		4		X															X				
	MW-3	05/15/23	1420	X		X		X		4		X															X				
	MW-5	05/15/23	1535	X		X		X		4		X															X				
	MW-2	05/16/23	1230	X		X		X		4		X															X				
	MW-1R	05/16/23	1400	X		X		X		4		X															X				
	DUP			X		X		X		4		X															X				

	Relinquished by	Date	Time	Received by	Date	Time
		5-17-23	1211		5/17/23	1211
	Relinquished by	Date	Time	Received by	Date	Time
	Relinquished by	Date	Time	Received by	Date	Time

ORIGINAL COPY

LAB USE ONLY

Sample Temperature
33/30
-0.3
IR8

REMARKS:

- [X] Standard
- [ ] RUSH Same Day 24 hr 48 hr 72 hr
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking # _____

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 880-28535-1
SDG Number: Lea County, NM

Login Number: 28535
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

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	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Brittany Long
Tetra Tech, Inc.
901 W Wall
Ste 100
Midland, Texas 79701

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JOB DESCRIPTION

JR Oil - EM Elliot
SDG NUMBER Lea County, NM

JOB NUMBER

880-34211-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

my EOL

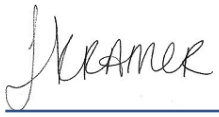
Eurofins Midland

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.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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

Client: Tetra Tech, Inc.
Project/Site: JR Oil - EM Elliot

Laboratory Job ID: 880-34211-1
SDG: Lea County, NM

Table of Contents

Definitions/Glossary

Client: Tetra Tech, Inc. Job ID: 880-34211-1
Project/Site: JR Oil - EM Elliot SDG: Lea County, NM

Qualifiers

GC VOA

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

HPLC/IC

Qualifier	Qualifier Description
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: Tetra Tech, Inc.
Project/Site: JR Oil - EM Elliot

Job ID: 880-34211-1
SDG: Lea County, NM

Job ID: 880-34211-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-34211-1

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 are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample 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 10/10/2023 8:21 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.1°C

GC VOA
Method 8021B: The surrogate recovery for the blank associated with analytical batch 880-64626 was outside the upper control limits.

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

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

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: JR Oil - EM Elliot

Job ID: 880-34211-1
SDG: Lea County, NM

Client Sample ID: MW-4

Lab Sample ID: 880-34211-1
Matrix: Water
Date Collected: 10/09/23 11:25
Date Received: 10/10/23 08:21

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			10/13/23 12:08	1
Toluene	<0.00200	U	0.00200		mg/L			10/13/23 12:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			10/13/23 12:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			10/13/23 12:08	1
o-Xylene	<0.00200	U	0.00200		mg/L			10/13/23 12:08	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			10/13/23 12:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*10/13/23 12:08*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*		*10/13/23 12:08*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			10/13/23 12:08	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**852**		10.0		mg/L			10/11/23 14:28	20

Client Sample ID: MW-3

Lab Sample ID: 880-34211-2
Matrix: Water
Date Collected: 10/09/23 13:20
Date Received: 10/10/23 08:21

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			10/13/23 12:28	1
Toluene	<0.00200	U	0.00200		mg/L			10/13/23 12:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			10/13/23 12:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			10/13/23 12:28	1
o-Xylene	<0.00200	U	0.00200		mg/L			10/13/23 12:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			10/13/23 12:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*10/13/23 12:28*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*		*10/13/23 12:28*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			10/13/23 12:28	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**59.1**		2.50		mg/L			10/11/23 14:39	5

Client Sample ID: MW-5

Lab Sample ID: 880-34211-3
Matrix: Water
Date Collected: 10/09/23 12:30
Date Received: 10/10/23 08:21

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			10/13/23 12:49	1
Toluene	<0.00200	U	0.00200		mg/L			10/13/23 12:49	1

Eurofins Midland

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: JR Oil - EM Elliot

Job ID: 880-34211-1
SDG: Lea County, NM

Client Sample ID: MW-5

Lab Sample ID: 880-34211-3
Matrix: Water
Date Collected: 10/09/23 12:30
Date Received: 10/10/23 08:21

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200		mg/L			10/13/23 12:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			10/13/23 12:49	1
o-Xylene	<0.00200	U	0.00200		mg/L			10/13/23 12:49	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			10/13/23 12:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*10/13/23 12:49*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*		*10/13/23 12:49*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			10/13/23 12:49	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**51.7**		2.50		mg/L			10/11/23 15:10	5

Client Sample ID: MW-2

Lab Sample ID: 880-34211-4
Matrix: Water
Date Collected: 10/09/23 14:30
Date Received: 10/10/23 08:21

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			10/13/23 13:09	1
Toluene	<0.00200	U	0.00200		mg/L			10/13/23 13:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			10/13/23 13:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			10/13/23 13:09	1
o-Xylene	<0.00200	U	0.00200		mg/L			10/13/23 13:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			10/13/23 13:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*		*10/13/23 13:09*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*		*10/13/23 13:09*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			10/13/23 13:09	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**68.2**		2.50		mg/L			10/11/23 15:20	5

Client Sample ID: MW-1R

Lab Sample ID: 880-34211-5
Matrix: Water
Date Collected: 10/09/23 15:15
Date Received: 10/10/23 08:21

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			10/13/23 13:30	1
Toluene	<0.00200	U	0.00200		mg/L			10/13/23 13:30	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			10/13/23 13:30	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			10/13/23 13:30	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: JR Oil - EM Elliot

Job ID: 880-34211-1
SDG: Lea County, NM

Client Sample ID: MW-1R

Lab Sample ID: 880-34211-5
Matrix: Water
Date Collected: 10/09/23 15:15
Date Received: 10/10/23 08:21

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/L			10/13/23 13:30	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			10/13/23 13:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*10/13/23 13:30*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*		*10/13/23 13:30*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			10/13/23 13:30	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19000**		100		mg/L			10/11/23 15:31	200

Client Sample ID: DUP

Lab Sample ID: 880-34211-6
Matrix: Water
Date Collected: 10/09/23 00:00
Date Received: 10/10/23 08:21

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			10/13/23 13:50	1
Toluene	<0.00200	U	0.00200		mg/L			10/13/23 13:50	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			10/13/23 13:50	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			10/13/23 13:50	1
o-Xylene	<0.00200	U	0.00200		mg/L			10/13/23 13:50	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			10/13/23 13:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*		*10/13/23 13:50*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*		*10/13/23 13:50*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/L			10/13/23 13:50	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**872**		10.0		mg/L			10/11/23 15:41	20

Surrogate Summary

Client: Tetra Tech, Inc.
Project/Site: JR Oil - EM Elliot

Job ID: 880-34211-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-34211-1	MW-4	93	98										
880-34211-1 MS	MW-4	104	106										
880-34211-1 MSD	MW-4	113	111										
880-34211-2	MW-3	97	103										
880-34211-3	MW-5	102	112										
880-34211-4	MW-2	111	112										
880-34211-5	MW-1R	104	104										
880-34211-6	DUP	114	109										
LCS 880-64626/3	Lab Control Sample	107	105										
LCSD 880-64626/4	Lab Control Sample Dup	112	107										
MB 880-64626/8	Method Blank	115	131 S1+										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: JR Oil - EM Elliot

Job ID: 880-34211-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-64626/8
Matrix: Water
Analysis Batch: 64626

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/L			10/13/23 11:39	1
Toluene	<0.00200	U	0.00200		mg/L			10/13/23 11:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/L			10/13/23 11:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/L			10/13/23 11:39	1
o-Xylene	<0.00200	U	0.00200		mg/L			10/13/23 11:39	1
Xylenes, Total	<0.00400	U	0.00400		mg/L			10/13/23 11:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*		*10/13/23 11:39*	*1*
1,4-Difluorobenzene (Surr)	*131*	*S1+*	*70 - 130*		*10/13/23 11:39*	*1*

Lab Sample ID: LCS 880-64626/3
Matrix: Water
Analysis Batch: 64626

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09799		mg/L		98	70 - 130		
Toluene			0.100	0.08022		mg/L		80	70 - 130		
Ethylbenzene			0.100	0.08366		mg/L		84	70 - 130		
m-Xylene & p-Xylene			0.200	0.1850		mg/L		93	70 - 130		
o-Xylene			0.100	0.08847		mg/L		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 880-64626/4
Matrix: Water
Analysis Batch: 64626

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			0.100	0.09353		mg/L		94	70 - 130	5	20
Toluene			0.100	0.08424		mg/L		84	70 - 130	5	20
Ethylbenzene			0.100	0.08875		mg/L		89	70 - 130	6	20
m-Xylene & p-Xylene			0.200	0.2029		mg/L		101	70 - 130	9	20
o-Xylene			0.100	0.09829		mg/L		98	70 - 130	11	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: 880-34211-1 MS
Matrix: Water
Analysis Batch: 64626

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.100	0.1062		mg/L		106	70 - 130		
Toluene	<0.00200	U	0.100	0.08991		mg/L		90	70 - 130		

Eurofins Midland

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: JR Oil - EM Elliot

Job ID: 880-34211-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-34211-1 MS
Matrix: Water
Analysis Batch: 64626

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.100	0.08686		mg/L		87	70 - 130
m-Xylene & p-Xylene	<0.00400	U	0.200	0.2033		mg/L		102	70 - 130
o-Xylene	<0.00200	U	0.100	0.09892		mg/L		99	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 880-34211-1 MSD
Matrix: Water
Analysis Batch: 64626

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.1150		mg/L		115	70 - 130	8	25
Toluene	<0.00200	U	0.100	0.08929		mg/L		89	70 - 130	1	25
Ethylbenzene	<0.00200	U	0.100	0.09751		mg/L		98	70 - 130	12	25
m-Xylene & p-Xylene	<0.00400	U	0.200	0.2206		mg/L		110	70 - 130	8	25
o-Xylene	<0.00200	U	0.100	0.1068		mg/L		107	70 - 130	8	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-64453/3
Matrix: Water
Analysis Batch: 64453

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			10/11/23 13:05	1

Lab Sample ID: LCS 880-64453/4
Matrix: Water
Analysis Batch: 64453

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	25.0	24.84		mg/L		99	90 - 110

Lab Sample ID: LCSD 880-64453/5
Matrix: Water
Analysis Batch: 64453

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	25.0	25.31		mg/L		101	90 - 110	2	20

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: JR Oil - EM Elliot

Job ID: 880-34211-1
SDG: Lea County, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-34236-A-1 MS
Matrix: Water
Analysis Batch: 64453

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	22.7		25.0	49.43		mg/L		107	90 - 110

Lab Sample ID: 880-34236-A-1 MSD
Matrix: Water
Analysis Batch: 64453

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	22.7		25.0	49.27		mg/L		106	90 - 110	0	20

QC Association Summary

Client: Tetra Tech, Inc.
Project/Site: JR Oil - EM Elliot

Job ID: 880-34211-1
SDG: Lea County, NM

GC VOA

Analysis Batch: 64626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-34211-1	MW-4	Total/NA	Water	8021B	
880-34211-2	MW-3	Total/NA	Water	8021B	
880-34211-3	MW-5	Total/NA	Water	8021B	
880-34211-4	MW-2	Total/NA	Water	8021B	
880-34211-5	MW-1R	Total/NA	Water	8021B	
880-34211-6	DUP	Total/NA	Water	8021B	
MB 880-64626/8	Method Blank	Total/NA	Water	8021B	
LCS 880-64626/3	Lab Control Sample	Total/NA	Water	8021B	
LCSD 880-64626/4	Lab Control Sample Dup	Total/NA	Water	8021B	
880-34211-1 MS	MW-4	Total/NA	Water	8021B	
880-34211-1 MSD	MW-4	Total/NA	Water	8021B	

Analysis Batch: 64833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-34211-1	MW-4	Total/NA	Water	Total BTEX	
880-34211-2	MW-3	Total/NA	Water	Total BTEX	
880-34211-3	MW-5	Total/NA	Water	Total BTEX	
880-34211-4	MW-2	Total/NA	Water	Total BTEX	
880-34211-5	MW-1R	Total/NA	Water	Total BTEX	
880-34211-6	DUP	Total/NA	Water	Total BTEX	

HPLC/IC

Analysis Batch: 64453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-34211-1	MW-4	Total/NA	Water	300.0	
880-34211-2	MW-3	Total/NA	Water	300.0	
880-34211-3	MW-5	Total/NA	Water	300.0	
880-34211-4	MW-2	Total/NA	Water	300.0	
880-34211-5	MW-1R	Total/NA	Water	300.0	
880-34211-6	DUP	Total/NA	Water	300.0	
MB 880-64453/3	Method Blank	Total/NA	Water	300.0	
LCS 880-64453/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 880-64453/5	Lab Control Sample Dup	Total/NA	Water	300.0	
880-34236-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
880-34236-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: JR Oil - EM Elliot

Job ID: 880-34211-1
SDG: Lea County, NM

Client Sample ID: MW-4
Date Collected: 10/09/23 11:25
Date Received: 10/10/23 08:21

Lab Sample ID: 880-34211-1
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	8021B		1	5 mL	5 mL	64626	10/13/23 12:08	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			64833	10/13/23 12:08	SM	EET MID
Total/NA	Analysis	300.0		20	10 mL	10 mL	64453	10/11/23 14:28	CH	EET MID

Client Sample ID: MW-3
Date Collected: 10/09/23 13:20
Date Received: 10/10/23 08:21

Lab Sample ID: 880-34211-2
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	8021B		1	5 mL	5 mL	64626	10/13/23 12:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			64833	10/13/23 12:28	SM	EET MID
Total/NA	Analysis	300.0		5	10 mL	10 mL	64453	10/11/23 14:39	CH	EET MID

Client Sample ID: MW-5
Date Collected: 10/09/23 12:30
Date Received: 10/10/23 08:21

Lab Sample ID: 880-34211-3
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	8021B		1	5 mL	5 mL	64626	10/13/23 12:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			64833	10/13/23 12:49	SM	EET MID
Total/NA	Analysis	300.0		5	10 mL	10 mL	64453	10/11/23 15:10	CH	EET MID

Client Sample ID: MW-2
Date Collected: 10/09/23 14:30
Date Received: 10/10/23 08:21

Lab Sample ID: 880-34211-4
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	8021B		1	5 mL	5 mL	64626	10/13/23 13:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			64833	10/13/23 13:09	SM	EET MID
Total/NA	Analysis	300.0		5	10 mL	10 mL	64453	10/11/23 15:20	CH	EET MID

Client Sample ID: MW-1R
Date Collected: 10/09/23 15:15
Date Received: 10/10/23 08:21

Lab Sample ID: 880-34211-5
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	8021B		1	5 mL	5 mL	64626	10/13/23 13:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			64833	10/13/23 13:30	SM	EET MID
Total/NA	Analysis	300.0		200	10 mL	10 mL	64453	10/11/23 15:31	CH	EET MID

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: JR Oil - EM Elliot

Job ID: 880-34211-1
SDG: Lea County, NM

Client Sample ID: DUP

Date Collected: 10/09/23 00:00
Date Received: 10/10/23 08:21

Lab Sample ID: 880-34211-6

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	8021B		1	5 mL	5 mL	64626	10/13/23 13:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			64833	10/13/23 13:50	SM	EET MID
Total/NA	Analysis	300.0		20	10 mL	10 mL	64453	10/11/23 15:41	CH	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: JR Oil - EM Elliot

Job ID: 880-34211-1
SDG: Lea County, NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24

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
Total BTEX		Water	Total BTEX

Method Summary

Client: Tetra Tech, Inc.
Project/Site: JR Oil - EM Elliot

Job ID: 880-34211-1
SDG: Lea County, NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5030B	Purge and Trap	SW846	EET MID

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: JR Oil - EM Elliot

Job ID: 880-34211-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-34211-1	MW-4	Water	10/09/23 11:25	10/10/23 08:21
880-34211-2	MW-3	Water	10/09/23 13:20	10/10/23 08:21
880-34211-3	MW-5	Water	10/09/23 12:30	10/10/23 08:21
880-34211-4	MW-2	Water	10/09/23 14:30	10/10/23 08:21
880-34211-5	MW-1R	Water	10/09/23 15:15	10/10/23 08:21
880-34211-6	DUP	Water	10/09/23 00:00	10/10/23 08:21

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

901 West Wall Street, Suite 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

880-34211 Chain of Custody

10/10/2023

Client Name:	JR Oil	**Site Manager**	Brittany Long
Project Name:	EM Elliot	**Contact Info:**	Brittany Long@tetratech com
Project Location: (county, state)	Lea County, NM	**Project #:**	212C-MD-03053
Invoice to:	Tetra Tech, Inc		
Receiving Laboratory:	Xenco	**Sampler Signature:**	Matthew Castrejon
Comments:			

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD NONE	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO ORO MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol 8260B / 624	GC/MS Semi Vol 8270C/625	PCB s 8082 / 608	NORM	PLM (Asbestos)	Chloride 300 0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R	HOLD
	MW-4	10/09/23	1125	X			X		X			4		X															X					
	MW-3	10/09/23	1310	X			X		X			4		X															X					
	MW-5	10/09/23	1230	X			X		X			4		X															X					
	MW-2	10/09/23	1420	X			X		X			4		X															X					
	MW-1R	10/09/23	1515	X			X		X			4		X															X					
	DUP	10/09/23		X			X		X			4		X															X					

Relinquished by	Date	Time	Received by	Date	Time
	10/10/23	0800		10/10/23	0800
Relinquished by	Date	Time	Received by	Date	Time
	10/10/23	0821		10/10/23	821
Relinquished by	Date	Time	Received by	Date	Time

ORIGINAL COPY

LAB USE ONLY

Sample Temperature 4.9/5.1

REMARKS:

- [X] Standard
- [ ] RUSH Same Day 24 hr 48 hr 72 hr
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking # _____

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 880-34211-1
SDG Number: Lea County, NM

Login Number: 34211
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

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	

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 323411

CONDITIONS

Operator:	OGRID:
J R OIL, LTD. CO. P.O. Box 53657 Lubbock, TX 79453	256073
	Action Number: 323411
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Review of the 2023 Groundwater Sampling Report for E.M. Elliot Tank Battery: Content Satisfactory 1. BTEX has been demonstrated to be well below the NM WQCC human health standards in Title 20 for more than eight consecutive quarters and may be suspended from sampling analysis. 2. JR Oil may reduce groundwater sampling to a semi-annual basis and may also reduce pumping MW-1 to a semi-annual event. 3. Submit the 2024 Groundwater Sampling Report by April 1, 2025. If an extension is required please notify the OCD in advance for approval.	6/6/2024