



Chris Brand
Environmental Remediation/ Facility Decom Advisor

VIA ELECTRONIC MAIL

December 17, 2025

New Mexico Oil Conservation Division
District I
1625 N. French Drive
Hobbs, New Mexico 88240

Re: West Lovington Unit #063
2025 Groundwater Monitoring Report
Incident # nPLM0830339670
Case No. 1RP-1993

Dear Whom it May Concern:

Please find enclosed for your files, copies of the following:
West Lovington Unit #063- 2025 Groundwater Monitoring Report

The report was prepared by Arcadis U.S., Inc. (Arcadis) on behalf of Chevron Environmental Management Company (CEMC) for Chevron U.S.A. Inc.

Please do not hesitate to call Morgan Jordan with Arcadis at 281.644.9437, or myself at 661.401.0359, should you have any questions.

Sincerely,

Chris Brand

Encl. 2025 Groundwater Monitoring Report
West Lovington Unit #063

cc. Morgan Jordan – Arcadis

Chris Brand
Environmental Remediation/ Facility Decom Advisor
6301 Deauville Blvd, Midland, TX 79706
Mobile 661 401 0359
chrisbrand@chevron.com



Chevron Environmental Management Company

2025 Groundwater Monitoring Report

West Lovington Unit #063

Incident # nPLM0830339670

Case No. 1RP-1993

Lea County, New Mexico

December 2025

2025 Groundwater Monitoring Report
West Lovington Unit #063

2025 Groundwater Monitoring Report

West Lovington Unit #063
Incident # nPLM0830339670
Case No. 1RP-1993
Lea County, New Mexico

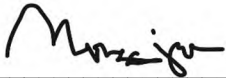
December 2025

Prepared By:

Arcadis U.S., Inc.
1330 Post Oak Blvd., Suite 2250
Houston
Texas 77056
Phone: 713 953 4800

Prepared For:

Chris Brand
Project Manager
CEMC
6301 Deauville Blvd.
Midland, TX 79706



Morgan Jordan
Project Manager

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www.arcadis.com

2025 Groundwater Monitoring Report
West Lovington Unit #063

Contents

1	Introduction	1
2	Project Summary	1
3	Groundwater Monitoring Results.....	1
3.1	Groundwater Gauging Data.....	1
3.2	LNAPL Occurrence and Recovery	2
3.3	Groundwater Analytical Results	2
3.3.1	BTEX	2
3.3.2	TPH.....	2
3.3.3	Chloride	2
3.3.4	TDS.....	2
4	Summary and Conclusions	3
5	2026 Planned Activities.....	3
6	Cited References	4

Tables

Table 1	2025 Groundwater Gauging
Table 2	2025 Groundwater Analytical Results
Table 3	2025 Groundwater Geochemical Parameter Measurements

Figures

Figure 1	Site Location Map
Figure 2	Site Details Map
Figure 3	Potentiometric Surface Map
Figure 4	Groundwater Results Map

2025 Groundwater Monitoring Report
West Lovington Unit #063

Appendices

Appendix A. Field Methodology

Appendix B. Cumulative Summary of Groundwater Gauging Data

Appendix C. Analytical Report

Appendix D. NMOCD Email Correspondence

2025 Groundwater Monitoring Report
West Lovington Unit #063

1 Introduction

Arcadis U.S., Inc. (Arcadis) has prepared this Groundwater Monitoring Report for Chevron Environmental Management Company (CEMC) on behalf of Chevron U.S.A. Inc., through its division Chevron North America Exploration and Production Company, which summarizes the initial groundwater monitoring event and activities conducted in 2025 at the West Lovington Unit #063 (Site) located at coordinates: 32.852454, -103.364926.

2 Project Summary

The Site is located on private owned land approximately 6.29 miles south of the City of Lovington in Unit D, Section 9, Township 17 South, Range 36 East, Lea County, New Mexico. The site is located within a low karst area. A Site Location Map is included as **Figure 1** and a Site Details Map as **Figure 2**.

According to the Initial C-141 Form, on April 1, 2007, a soil boring investigation was conducted at Site No. 173609C located adjacent to the Unit Boundary of the West Lovington Unit. Two separate boreholes indicated the presence of chloride, benzene, toluene, ethylbenzene, xylenes (BTEX), and various hydrocarbon chains at concentrations sufficient to warrant further investigation. Verbal notification of potential groundwater impact was made to Chris Williams at the local New Mexico Oil Conservation Division (NMOCD) district office on February 1, 2008. The time and source of the impacting event (release) is unknown. The Initial C-141 Form was approved on October 29, 2008, and assigned remediation permit number 1RP-1993 and incident number nPLM0830339670.

During the initial site inspection by Arcadis in January 2021, four unregistered monitoring wells were identified on Site. The monitor wells were initially gauged for the first time in February 2021. On April 3, 2025, the monitoring wells were re-developed utilizing Environmental Protection Agency (EPA) Standard Methods due to it being unknown when they were installed. The monitor wells were sampled for the first time by Arcadis on behalf of Chevron on April 15-16, 2025. This was the first/ initial groundwater sampling event conducted at the Site. No other groundwater sampling events have been conducted previously at the Site.

The NMOCD issued its initial request for groundwater monitoring data in conjunction with the soil remediation closure approval, specifying that the data be submitted no later than September 8, 2025. In accordance with this requirement, the initial groundwater monitoring data was submitted to NMOCD on September 4, 2025, ensuring compliance with the stated deadline.

3 Groundwater Monitoring Results

Arcadis performed the initial groundwater sampling event on April 15-16, 2025. The four monitoring wells are shown in **Figure 3**. Field monitoring methodologies are described in **Appendix A**.

3.1 Groundwater Gauging Data

Groundwater and LNAPL measurements collected during the monitoring event conducted in 2025 indicated:

- Groundwater elevations ranged from 3827.49 feet above mean sea level (ft AMSL) (MW-2) to 3,828 ft AMSL (MW-4) during the event.
- The groundwater flow was to the southeast and the calculated gradient was 0.0041 ft/ft.

2025 Groundwater Monitoring Report
West Lovington Unit #063

Groundwater gauging and elevation data for the sampling event is presented in **Table 1**. The groundwater potentiometric surface map for the sampling event is presented in **Figure 3**. A cumulative summary of groundwater gauging data is presented in **Appendix B**.

3.2 LNAPL Occurrence and Recovery

LNAPL was present in one monitor well (MW-3) during the 2025 monitoring period.

- An initial LNAPL abatement event (gauging and pumping) was conducted on April 3-4, 2025, by purging monitor well (MW-3) with a monsoon pump.
 - On April 3, following gauging of all Site wells approximately 4.5 gallons of LNAPL and 19 gallons of water were purged from monitor well (MW-3).
 - On April 4, approx. 2 gallons of LNAPL/water mixture was recovered from MW-3.
- On April 15, following gauging of all Site wells, LNAPL abatement by hand bailing was conducted on MW-3, and approximately 4.5 gallons of LNAPL/water mixture was recovered from MW-3.

3.3 Groundwater Analytical Results

During the monitoring event three of the four monitoring wells (MW-1, MW-2, and MW-4) were sampled. MW-3 contained LNAPL, therefore was not sampled.

Groundwater analytical results for BTEX, chloride, and Total Dissolved Solids (TDS) were compared to the New Mexico Environment Department Water Quality Control Commission (NMWQCC) Groundwater Standards. The NMWQCC has no set standard for total petroleum hydrocarbons (TPH). A summary of the groundwater sample analytical results is presented in **Table 2**. The groundwater geochemical measurements are presented in **Table 3**. The analytical results map for the 2025 sampling event is presented in **Figures 4**. A copy of the certified analytical report from Pace Analytical is provided in **Appendix C**. The analytical results are further summarized below.

3.3.1 BTEX

- BTEX concentrations during the 2025 sampling event were reported below the NMWQCC standards.

3.3.2 TPH

- TPH concentrations during the 2025 sampling event were reported as not detected at or above the method detection limit.

3.3.3 Chloride

- Chloride concentrations during the 2025 sampling event were reported below the NMWQCC standard.

3.3.4 TDS

- TDS concentrations during the 2025 sampling event were reported below the NMWQCC standard.

2025 Groundwater Monitoring Report
West Lovington Unit #063

4 Summary and Conclusions

The monitor wells were sampled for the first time on April 15-16, 2025. During the April 2025 groundwater sampling event the depth to groundwater in all wells was approximately 52 feet, which places the water bearing zone in the Ogallala. The groundwater flow direction is to the southeast. LNAPL was present in one monitor well (MW-3) during the monitoring event. However, in the other three wells there is no indication of the presence of LNAPL nor any effects of being downgradient or cross gradient from the LNAPL well. The Site is currently delineated. There is no detection of BTEX or TPH. In addition, the dissolved oxygen in MW-1, MW-2, and MW-4 are all above 5 mg/L and the Oxidation-Reduction Potential values were positive in all wells in the aerobic range (82 to 126 mV) showing no effect of hydrocarbons. The chloride concentration ranging from 16 to 23 mg/L is less than that reported for the Ogallala in Hobbs and Lovington at 114 and 68 mg/L respectively (Leedshill-Herkenoff et al, 2000), indicating no impact from brine that typically accompanies upstream hydrocarbon releases. The LNAPL observed in MW-3 is likely an isolated mass of petroleum historically produced from conventional wells in the San Andres or Greyburg Formations (and less volatile than currently produced shale oil). Further, it appears to be highly weathered and not contributing any dissolved phase hydrocarbons into the groundwater system that are not rapidly controlled by natural attenuation processes in the shallow groundwater system.

5 2026 Planned Activities

- Conduct quarterly groundwater monitoring with quarterly reporting for all Site wells. The next groundwater sampling event is scheduled for the 1st quarter of 2026.
- Conduct LNAPL gauging/ recovery (hand bailing) on a quarterly basis.
- An Abatement Plan will be submitted by February 27, 2026, per NMOCD email correspondence located in **Appendix D**.

2025 Groundwater Monitoring Report
West Lovington Unit #063

6 Cited References

- Leedshill-Herkenhoff, Inc., John Shomaker & Associated, Inc., and Montgomery & Andrews, Inc., P.A., 200. Final Report Lea County Regional Water Plan, 130 pp.
- McAda, Douglas, P., 1984. Projected Water-Level Declines in the Ogalla Aquifer in Lea County, New Mexico, USGS Water Resources Report 84-44062, 93 pp.
- Nicholson, Alexander Jr. and Clebsch, Alfred Jr., 1961. Geology and Ground-Water Conditions in Southern Lean County, New Mexico, USGS Ground-Water Report 6, 134 pp.

Tables



Table 1
2025 Summary of Groundwater Gauging Data
Chevron Environmental Management Company
WLU 63
Lea County, New Mexico

Well ID <i>toc elevation</i>	Date	Depth to Groundwater (ft toc ²)	Depth to LNAPL (ft toc ²)	LNAPL Thickness (ft)	Groundwater Elevation (ft msl ³)	Total Well Depth (ft toc ²)	Well Diameter (inches)
MW-1 3879.88	4/15/25	52.19	---	---	3827.69	58.55	4
MW-2 3879.42	4/15/25	51.93	---	---	3827.49	58.33	4
MW-3 3879.58	4/15/25	51.99	51.64	0.35	3827.90	58.15	4
MW-4 3880.31	4/15/25	52.31	---	---	3828.00	58.62	4

Notes:

toc - top of casing.

msl - mean sea level.

bgs - below ground surface.

--- - Not Measured/Not Available.

Professional Survey conducted by Landpoint Land Surveying in October 2025.

Table 2
2025 Summary of Groundwater Analytical Data
Chevron Environmental Management Company
WLU 63
Lea County, New Mexico



Sample ID	Sample Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	TPH-GRO	TPH-DRO	TPH-ORO	Chloride	Total Dissolved Solids (TDS)
New Mexico Water Quality Control Commission Groundwater Standard										
		0.005 ¹	1.0 ¹	0.7 ¹	0.62 ¹	--	--	--	250 ²	1,000
MW-1	4/15/2025	<0.000190	<0.000412	<0.000160	<0.000510	<0.0314	<0.0605	<0.0772	20.1	457
MW-2	4/15/2025	<0.000190	<0.000412	<0.000160	<0.000510	<0.0314	<0.0605	<0.0772	22.5	462
MW-3	4/16/2025	LNAPL Present								
MW-4	4/16/2025	<0.000190	<0.000412	<0.000160	<0.000510	<0.0314	<0.0605	<0.0772	16.4	367

Notes:

Results shown in milligrams per liter (mg/L)

< = Analyte not detected at or above the Method Detection Limit (MDL)

-- = No established standard

[] = Duplicate results

Bold = Value exceeding New Mexico Water Quality Control Commission Groundwater Standard¹Human Health Standards for Groundwater.²Other Standards for Domestic Water Supply.

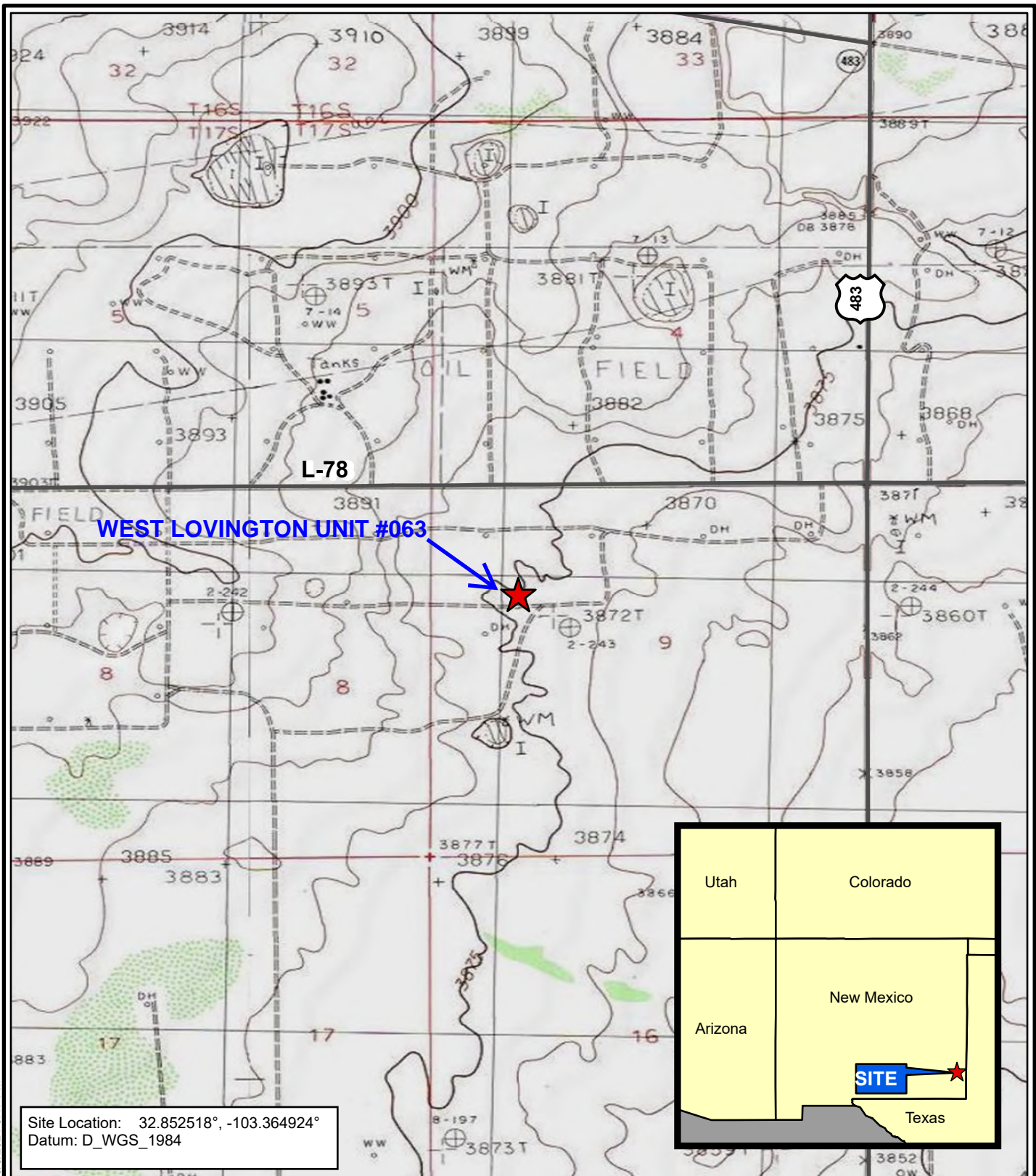
Table 3
2025 Summary of Groundwater Geochemical Parameter Measurements
Chevron Environmental Management Company
WLU 63
Lea County, New Mexico



Sample ID	Date	Field Measurements					
		Turbidity (NTU)	DO (mg/L)	ORP (mV)	Cond. (mS/cm)	Temp. (C)	pH (s.u.)
MW-1	4/15/2025	--	5.97	114.6	0.861	20.12	6.59
MW-2	4/15/2025	--	5.28	126.3	0.659	20.36	6.39
MW-3	4/15/2025	LNAPL Present					
MW-4	4/16/2025	--	6.29	82.1	0.550	20.52	7.04

Figures

City: Houston Div/Group: Remediation West - Air Group Created By: W Berry Last Saved By: avi00976 ; Client (Project #)
 T:\ENV\Chevron\WLU 63\ ProWLU 63.aprx 5/8/2024 8:47 PM



CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
 WEST LOVINGTON UNIT #063
 LEA COUNTY, NEW MEXICO

SITE LOCATION MAP MAP





FIGURE
1

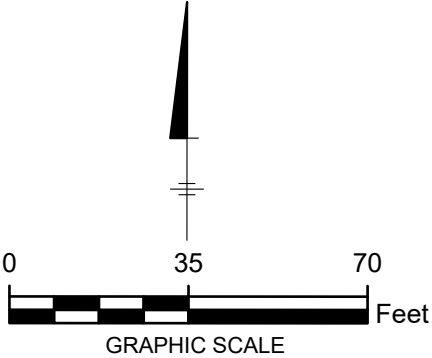
Document Path: T:\ENVUpstream\WLU_63\ProWLU_63.aprx 11/25/2025 11:29 AM Lastedited: avi00976



Legend

-  Monitoring Well
-  Excavated Area

Notes:
1. Datum: D_WGS_1984
2. Site Location: 32.852518°, -103.364924°









Chevron Environmental Management Company West Lovington Unit #063 Lea County, New Mexico	
SITE DETAILS MAP	
	FIGURE 2

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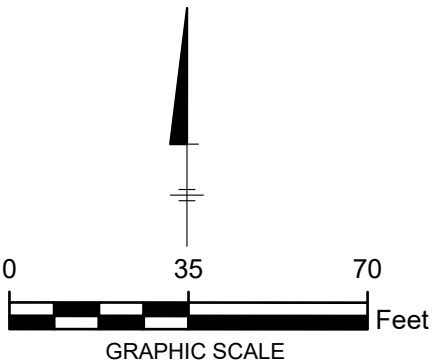


© OpenStreetMap (and) contributors, CC-BY-SA

Legend

-  Monitoring Well
-  LNAPL Thickness (feet)
-  Potentiometric Contour and Elevation
-  Inferred Potentiometric Contour
-  Groundwater Elevation (feet above mean sea level)
-  Approximate Groundwater Flow Direction
- 0.0041 ft/ft = Approximate Hydraulic Gradient (feet/foot)

- Notes:
- 1. Datum: D_WGS_1984
 - 2. Site Location: 32.852518°, -103.364924°
 - 3. LNAPL: Light Non-Aqueous Phase Liquid



Chevron Environmental Management Company
West Lovington Unit #063
Lea County, New Mexico

POTENTIOMETRIC SURFACE MAP
APRIL 15, 2025



FIGURE
3

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MW-4	
Analyte	Result
Date	04/16/25
Benzene	<0.000190
Toluene	<0.000412
Ethylbenzene	<0.000160
Total Xylenes	<0.000510
TPH-GRO	<0.0314
TPH-DRO	<0.0605
TPH-ORO	<0.0772
Chloride	16.4
TDS	367

MW-4

MW-3
(0.35)

MW-1	
Analyte	Result
Date	04/15/25
Benzene	<0.000190
Toluene	<0.000412
Ethylbenzene	<0.000160
Total Xylenes	<0.000510
TPH-GRO	<0.0314
TPH-DRO	<0.0605
TPH-ORO	<0.0772
Chloride	20.1
TDS	457



MW-1

MW-2	
Analyte	Result
Date	04/15/25
Benzene	<0.000190
Toluene	<0.000412
Ethylbenzene	<0.000160
Total Xylenes	<0.000510
TPH-GRO	<0.0314
TPH-DRO	<0.0605
TPH-ORO	<0.0772
Chloride	22.5
TDS	462

MW-2

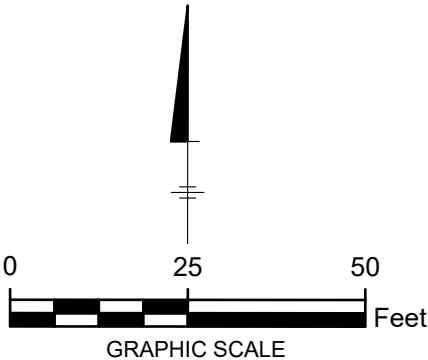
Source: Esri, Vantor, Earthstar Geographics, IGN, and the GIS User Community

Legend

-  Monitoring Well
-  LNAPL Thickness (Feet)

- Notes:
- Datum: D_WGS_1984
 - Site Location: 32.852518°, -103.364924°
 - Results shown in milligrams per liter (mg/L).
 - < : Analyte not detected at or above the Method Detection Limit (MDL).
 - : No established standard
 - TPH GRO: Total Petroleum Hydrocarbons Gasoline Range Organics
 - TPH DRO: Total Petroleum Hydrocarbon Diesel Range Organics
 - TPH ORO: Total Petroluem Hydrocarbons Oil Range Organics
 - TDS: Total Dissolved Solids
 - LNAPL: Light Non-Aqueous Phase Liquid

Analyte	NMWQCC Standard for Groundwater (mg/L)
Benzene	0.005
Toluene	1
Ethylbenzene	0.7
Total Xylenes	0.62
TPH-GRO	--
TPH-DRO	--
TPH-ORO	--
Chloride	250
TDS	1,000.0



Chevron Environmental Management Company
West Lovington Unit #063
Lea County, New Mexico

SAMPLE RESULTS MAP



Appendix A

Field Methodology



Field Methodology

Groundwater Sampling

Field equipment was decontaminated with an Alconox™ wash and distilled water rinse before beginning field activities and between wells. Prior to sampling, static fluid levels were measured to the nearest hundredth of a foot with an electronic oil-water interface probe on the first day of each monitoring event. The fluid levels were measured from the permanent reference point on the top of the casing in each well, or from the north side of the top of the casing where no permanent reference point had been marked.

Wells were sampled using low-flow methodology. During purging, the flow rate was adjusted in order to achieve minimal drawdown from the static water level. Temperature, oxidation reduction potential (ORP), pH, conductivity, and dissolved oxygen (DO) were monitored during purging, which continued until at least three of these parameters were stabilized within a 10 percent range for three consecutive measurements. Samples were then collected, labeled, recorded on a chain of custody form, and placed on ice in an insulated cooler to maintain a temperature of approximately 4°C (40°F).

Groundwater samples were submitted by Arcadis under chain-of-custody (COC) protocol to Pace Analytical for analysis of BTEX by EPA Method 8021B, chloride by Method 300, TDS by Method SM2540C, and TPH diesel range organics (DRO)/ motor oil range organics (ORO) by Method SW8015B.

Remediation Standards

Groundwater

The NMOCD provides guidance for remediation of contaminants of oil field wastes or products in Guidelines for Remediation of Leaks, Spills, and Releases (August 13, 1993). The guidance requires remediation of groundwater to the human health standards of the New Mexico Water Quality Control Commission (NMWQCC) set forth in New Mexico Administrative Code 20.6.2.3103. Standards for BTEX and chloride are listed below.

Analyte	NMWQCC Groundwater Standard (mg/L)
Benzene	0.005
Toluene	1
Ethylbenzene	0.7
Total Xylenes	0.62
Chloride	250
Total Dissolved Solids (TDS)	1,000

NMWQCC groundwater standards do not include TPH.

Appendix B

Cumulative Summary of Groundwater Gauging Data

Appendix B
Cumulative Groundwater Gauging Data
Chevron Environmental Management Company
WLU 63
Lea County, New Mexico



Well ID <i>toc elevation</i>	Date	Depth to Groundwater (ft toc ²)	Depth to LNAPL (ft toc ²)	LNAPL Thickness (ft)	Groundwater Elevation (ft msl ³)	Total Well Depth (ft toc ²)	Well Diameter (inches)
MW-1 3879.88	2/10/21	50.74	50.71	0.03	3829.17	58.45	4
	5/20/24	52.82	---	---	3827.06	---	
	4/3/25	52.61	---	---	3827.27	58.45	
	4/15/25	52.19	---	---	3827.69	58.55	
MW-2 3879.42	2/10/21	50.49	---	---	3828.93	58.22	4
	5/20/24	51.54	---	---	3827.88	---	
	4/3/25	51.90	---	---	3827.52	58.22	
	4/15/25	51.93	---	---	3827.49	58.33	
MW-3 3879.58	2/10/21	55.99	49.52	6.47	3829.39	58.14	4
	5/20/24	57.02	50.65	6.37	3828.27	---	
	4/3/25	57.35	50.99	6.36	3827.93	58.14	
	4/4/25	52.28	51.70	0.58	3827.82	---	
	4/15/25	51.99	51.64	0.35	3827.90	58.15	
MW-4 3880.31	2/10/21	50.89	50.88	0.01	3829.42	58.54	4
	5/20/24	51.95	---	---	3828.36	---	
	4/3/25	52.31	---	---	3828.00	58.54	
	4/15/25	52.31	---	---	3828.00	58.62	

Notes:
toc - top of casing.
msl - mean sea level.
bgs - below ground surface.
--- - Not Measured/Not Available.
Professional Survey conducted by Landpoint Land Surveying in October 2025.

Appendix C

Analytical Reports



ANALYTICAL REPORT

August 25, 2025

Revised Report

Arcadis - Chevron - NM

Sample Delivery Group: L1849121
Samples Received: 04/17/2025
Project Number: 30209850.00004
Description: WLU 63
Site: WLU 63
Report To: Morgan Jordan
1004 N Big Spring Street
Suite 121
Midland, TX 79701

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Entire Report Reviewed By:

A blue ink signature of Derin R Belanger.

Derin R Belanger
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

Cp: Cover Page	1	¹ Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	² Tc
Cn: Case Narrative	4	
Sr: Sample Results	5	³ Ss
MW-1-W-250415 L1849121-01	5	
MW-2-W-250415 L1849121-02	6	⁴ Cn
MW-4-W-250416 L1849121-07	7	⁵ Sr
Qc: Quality Control Summary	8	
Gravimetric Analysis by Method 2540 C-2011	8	⁶ Qc
Wet Chemistry by Method 300.0	10	
Volatile Organic Compounds (GC) by Method 8015/8021	12	⁷ Gl
Semi-Volatile Organic Compounds (GC) by Method 8015D	13	⁸ Al
Gl: Glossary of Terms	15	
Al: Accreditations & Locations	16	⁹ Sc
Sc: Sample Chain of Custody	17	

SAMPLE SUMMARY

MW-1-W-250415 L1849121-01

Collected by TSL
Collected date/time 04/15/25 14:58
Received date/time 04/17/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2493892	1	04/21/25 08:04	04/21/25 10:40	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2493532	1	04/22/25 07:30	04/22/25 07:30	DLH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG2494678	1	04/19/25 04:28	04/19/25 04:28	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015D	WG2497999	1	04/23/25 16:35	04/25/25 19:51	MAA	Mt. Juliet, TN

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

MW-2-W-250415 L1849121-02

Collected by TSL
Collected date/time 04/15/25 15:43
Received date/time 04/17/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2493892	1	04/21/25 08:04	04/21/25 10:40	MMF	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2493532	1	04/22/25 07:40	04/22/25 07:40	DLH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG2494678	1	04/19/25 04:50	04/19/25 04:50	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015D	WG2497999	1	04/23/25 16:35	04/25/25 20:11	MAA	Mt. Juliet, TN

MW-4-W-250416 L1849121-07

Collected by TSL
Collected date/time 04/16/25 12:42
Received date/time 04/17/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2493898	1	04/18/25 20:30	04/19/25 11:19	JAC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2493931	1	04/20/25 00:31	04/20/25 00:31	DLH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG2494678	1	04/19/25 06:41	04/19/25 06:41	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015D	WG2498000	1	04/25/25 00:59	04/25/25 10:45	MAA	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Derin R Belanger
Project Manager

Report Revision History

Level II Report - Version 1: 04/29/25 16:44

Project Narrative

Reprint report for "L1849121 A" per MKI - DB 8/25

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	457		10.0	1	04/21/2025 10:40	WG2493892

¹ Cp

² Tc

Wet Chemistry by Method 300.0

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	20.1		0.547	1.00	1	04/22/2025 07:30	WG2493532

³ Ss

⁴ Cn

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	1	04/19/2025 04:28	WG2494678
Toluene	U		0.000412	0.00100	1	04/19/2025 04:28	WG2494678
Ethylbenzene	U		0.000160	0.000500	1	04/19/2025 04:28	WG2494678
Total Xylene	U		0.000510	0.00150	1	04/19/2025 04:28	WG2494678
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	04/19/2025 04:28	WG2494678
(S) a,a,a-Trifluorotoluene(FID)	99.8			78.0-120		04/19/2025 04:28	WG2494678
(S) a,a,a-Trifluorotoluene(PID)	105			79.0-125		04/19/2025 04:28	WG2494678

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Semi-Volatile Organic Compounds (GC) by Method 8015D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		0.0605	0.100	1	04/25/2025 19:51	WG2497999
C28-C36 Motor Oil Range	U		0.0772	0.100	1	04/25/2025 19:51	WG2497999
(S) o-Terphenyl	70.5			52.0-156		04/25/2025 19:51	WG2497999

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	462		10.0	1	04/21/2025 10:40	WG2493892

Wet Chemistry by Method 300.0

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	22.5		0.547	1.00	1	04/22/2025 07:40	WG2493532

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	1	04/19/2025 04:50	WG2494678
Toluene	U		0.000412	0.00100	1	04/19/2025 04:50	WG2494678
Ethylbenzene	U		0.000160	0.000500	1	04/19/2025 04:50	WG2494678
Total Xylene	U		0.000510	0.00150	1	04/19/2025 04:50	WG2494678
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	04/19/2025 04:50	WG2494678
(S) a,a,a-Trifluorotoluene(FID)	100			78.0-120		04/19/2025 04:50	WG2494678
(S) a,a,a-Trifluorotoluene(PID)	105			79.0-125		04/19/2025 04:50	WG2494678

Semi-Volatile Organic Compounds (GC) by Method 8015D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		0.0605	0.100	1	04/25/2025 20:11	WG2497999
C28-C36 Motor Oil Range	U		0.0772	0.100	1	04/25/2025 20:11	WG2497999
(S) o-Terphenyl	76.8			52.0-156		04/25/2025 20:11	WG2497999

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	367		10.0	1	04/19/2025 11:19	WG2493898

Wet Chemistry by Method 300.0

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	16.4		0.547	1.00	1	04/20/2025 00:31	WG2493931

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	1	04/19/2025 06:41	WG2494678
Toluene	U		0.000412	0.00100	1	04/19/2025 06:41	WG2494678
Ethylbenzene	U		0.000160	0.000500	1	04/19/2025 06:41	WG2494678
Total Xylene	U		0.000510	0.00150	1	04/19/2025 06:41	WG2494678
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	04/19/2025 06:41	WG2494678
(S) a,a,a-Trifluorotoluene(FID)	99.5			78.0-120		04/19/2025 06:41	WG2494678
(S) a,a,a-Trifluorotoluene(PID)	105			79.0-125		04/19/2025 06:41	WG2494678

Semi-Volatile Organic Compounds (GC) by Method 8015D

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		0.0605	0.100	1	04/25/2025 10:45	WG2498000
C28-C36 Motor Oil Range	U		0.0772	0.100	1	04/25/2025 10:45	WG2498000
(S) o-Terphenyl	88.4			52.0-156		04/25/2025 10:45	WG2498000

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4204070-1 04/21/25 10:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1849019-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1849019-01 04/21/25 10:40 • (DUP) R4204070-3 04/21/25 10:40

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	7550	7530	1	0.265		10

L1849568-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1849568-09 04/21/25 10:40 • (DUP) R4204070-4 04/21/25 10:40

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	4100	4000	1	2.47		10

Laboratory Control Sample (LCS)

(LCS) R4204070-2 04/21/25 10:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8890	101	90.0-110	

Gravimetric Analysis by Method 2540 C-2011 [L1849121-07](#)

Method Blank (MB)

(MB) R4202874-1 04/19/25 11:19

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Dissolved Solids	U		10.0	10.0

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1849116-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1849116-01 04/19/25 11:19 • (DUP) R4202874-3 04/19/25 11:19

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	13800	13200	1	4.44		10

L1849142-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1849142-01 04/19/25 11:19 • (DUP) R4202874-4 04/19/25 11:19

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	18500	19200	1	3.81		10

Laboratory Control Sample (LCS)

(LCS) R4202874-2 04/19/25 11:19

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	mg/l	mg/l	%	%	
Dissolved Solids	8800	8510	96.7	90.0-110	

Wet Chemistry by Method 300.0 [L1849121-01.02](#)

Method Blank (MB)

(MB) R4203104-1 04/22/25 03:34

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Chloride	U		0.547	1.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1849098-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1849098-06 04/22/25 04:46 • (DUP) R4203104-3 04/22/25 04:56

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	U	U	1	0.000		15

L1849103-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1849103-01 04/22/25 05:27 • (DUP) R4203104-6 04/22/25 05:37

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	6.71	6.77	1	0.941		15

Laboratory Control Sample (LCS)

(LCS) R4203104-2 04/22/25 03:44

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Chloride	40.0	40.4	101	90.0-110	

L1849098-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1849098-06 04/22/25 04:46 • (MS) R4203104-4 04/22/25 05:06 • (MSD) R4203104-5 04/22/25 05:16

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	40.0	U	39.7	40.1	99.2	100	1	90.0-110			1.06	15

L1849103-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1849103-01 04/22/25 05:27 • (MS) R4203104-7 04/22/25 05:47

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/l	mg/l	mg/l	%		%	
Chloride	40.0	6.71	49.0	106	1	90.0-110	

Method Blank (MB)

(MB) R4202659-1 04/19/25 22:48

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Chloride	U		0.547	1.00

L1847511-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1847511-08 04/19/25 23:40 • (DUP) R4202659-3 04/19/25 23:50

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	U	U	1	0.000		15

L1849250-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1849250-01 04/20/25 01:43 • (DUP) R4202659-6 04/20/25 01:53

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	1.49	1.54	1	3.07		15

Laboratory Control Sample (LCS)

(LCS) R4202659-2 04/19/25 22:59

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Chloride	40.0	38.9	97.3	90.0-110	

L1847511-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1847511-08 04/19/25 23:40 • (MS) R4202659-4 04/20/25 00:00 • (MSD) R4202659-5 04/20/25 00:11

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	40.0	U	38.1	38.8	95.2	96.9	1	90.0-110			1.75	15

L1849250-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1849250-01 04/20/25 01:43 • (MS) R4202659-7 04/20/25 02:04

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/l	mg/l	mg/l	%		%	
Chloride	40.0	1.49	39.2	94.3	1	90.0-110	

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Volatile Organic Compounds (GC) by Method 8015/8021

L1849121-01,02,07

Method Blank (MB)

(MB) R4202826-3 04/18/25 23:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000190	0.000500
Toluene	U		0.000412	0.00100
Ethylbenzene	U		0.000160	0.000500
Total Xylene	U		0.000510	0.00150
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	99.5			78.0-120
(S) a,a,a-Trifluorotoluene(PID)	104			79.0-125

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

Laboratory Control Sample (LCS)

(LCS) R4202826-1 04/18/25 21:55

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0483	96.6	77.0-122	
Toluene	0.0500	0.0488	97.6	80.0-121	
Ethylbenzene	0.0500	0.0503	101	80.0-123	
Total Xylene	0.150	0.147	98.0	47.0-154	
(S) a,a,a-Trifluorotoluene(FID)			99.3	78.0-120	
(S) a,a,a-Trifluorotoluene(PID)			103	79.0-125	

7
Gl

8
Al

9
Sc

Laboratory Control Sample (LCS)

(LCS) R4202826-2 04/18/25 22:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.00	5.00	100	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			109	78.0-120	
(S) a,a,a-Trifluorotoluene(PID)			112	79.0-125	

Semi-Volatile Organic Compounds (GC) by Method 8015D [L1849121-01,02](#)

Method Blank (MB)

(MB) R4204599-1 04/24/25 08:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
C10-C28 Diesel Range	U		0.0605	0.100
C28-C36 Motor Oil Range	U		0.0772	0.100
(S) o-Terphenyl	75.0			52.0-156

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4204599-2 04/24/25 08:58 • (LCSD) R4204599-3 04/24/25 09:18

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	1.50	1.41	1.49	94.0	99.3	50.0-150			5.52	20
(S) o-Terphenyl				79.5	80.0	52.0-156				

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Semi-Volatile Organic Compounds (GC) by Method 8015D

L1849121-07

Method Blank (MB)

(MB) R4205335-1 04/25/25 09:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
C10-C28 Diesel Range	U		0.0605	0.100
C28-C36 Motor Oil Range	U		0.0772	0.100
(S) o-Terphenyl	87.0			52.0-156

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4205335-2 04/25/25 09:24 • (LCSD) R4205335-3 04/25/25 09:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	1.50	1.55	1.61	103	107	50.0-150			3.80	20
(S) o-Terphenyl				101	109	52.0-156				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
U (Radiochemistry)	Result + Error < MDA.
J (Radiochemistry)	Result < MDA; Result + Error > MDA.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

QualifierDescription

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

¹Cp

²Tc

³Ss

⁴Cn


⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Company Name/Address: Arcadis - Chevron - NM 1004 N Big Spring Street Suite 121 Midland, TX 79701				Billing Information: Attn: 630 Plaza Drive, Suite 200 Highlands Ranch, CO 80129				Pres Chk				Analysis / Container / Preservative								Chain of Custody Page <u>40</u> of <u>41</u>							
																				 PEOPLE ADVANCING SCIENCE MT JULIET, TN 12065 Lebanon Rd Mount Juliet, TN 37122 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubs/pas-standard-terms.pdf							
Report to: Morgan Jordan 281-644-9437				Email To: douglas.jordan@arcadis.com; Lauren.Krueger@a																							
Project Description: WLU 63				City/State Collected: Midland NM				Please Circle: PT <u>MT</u> CT ET																			
Regulatory Program(DOD,RCRA,DW,etc):				Client Project # 30209850.00004				Lab Project # CHEVARCNM-WLU63																			
Collected by (print): <i>Sergio S. Longwell</i>				Site/Facility ID # WLU 63				P.O. #																			
Collected by (signature): <i>[Signature]</i>				Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day <input type="checkbox"/> STD TAT				Quote #																			
Immediately Packed on Ice N <u>Y</u> <u>P</u>				Date Results Needed <i>Standard 10/15</i>				No. of Cntrs																			
Sample ID				Comp/Grab		Matrix *		Depth		Date		Time															
MW-1-W-250415				G		GW				04/15/25		1458		7		X		X		X		X					
MW-2-W-250415				G		GW				04/15/25		1543		7		X		X		X		X					
MW-7-W-250416				G		GW				04/16/25		0839		7		X		X		X		X					
MW-8-W-250416				G		GW				04/16/25		0829		7		X		X		X		X					
MW-6-W-250416				G		GW				04/16/25		1051		7		X		X		X		X					
MW-5-W-250416				G		GW				04/16/25		1152		7		X		X		X		X					
MW-4-W-250416				G		GW				04/16/25		1242		7		X		X		X		X					
DOP-DI-W-250416				G		GW				04/16/25				7		X		X		X		X					
						GW								7		X		X		X		X					
						GW								7		X		X		X		X					

* Matrix:

SS - Soil AIR - Air F - Filter

GW - Groundwater B - Bioassay

WW - WasteWater

DW - Drinking Water

OT - Other

Remarks:

Samples returned via: UPS FedEx Courier

Tracking #

pH _____ Temp _____

Flow _____ Other _____

Relinquished by: (Signature) *[Signature]*

Date: 04/16/25

Time: 1502

Received by: (Signature) *[Signature]*

Date: 4/16/25

Time: 15:45

Trip Blank Received: Yes/No HCL / MeOH TBR

Temp: 56 °C

Bottles Received: 56

Relinquished by: (Signature) *[Signature]*

Date: 4/16/25

Time: 15:45

Received for lab by: (Signature) *[Signature]*

Date: 4/17/25

Time: 900

Hold:

Condition: NCF / OK

Sample Receipt Checklist

COC Seal Present/Intact: NP Y N

COC Signed/Accurate: Y Y N

Bottles arrive intact: Y Y N

Correct bottles used: Y Y N

Sufficient volume sent: Y Y N

If Applicable

VOA Zero Headspace: Y Y N

Preservation Correct/Checked: Y Y N

RAD Screen <0.5 mR/hr: Y Y N

Effective Date:

Multiple Parcel Form

L# 4849121

[illegible]

an ~~H~~_____

Name

4/17/25

Date _____

Appendix D

NMOCD Email Correspondence

Jordan, Morgan

From: Jordan, Morgan
Sent: Friday, December 12, 2025 1:18 PM
To: 'Shanna.Smith@emnrd.nm.gov'
Cc: 'Brand, Chris'
Subject: RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 533943

Shanna,

We have updated the report per your below requests and will get it resubmitted next week. My apologies if it was not stated well in the report that this was the first time the Site has been groundwater monitored. I added below bolded part to the report under project summary.

- The monitor wells were sampled for the first time by Arcadis on behalf of Chevron on April 15-16, 2025.
This was the first/ initial groundwater sampling event ever conducted at the Site. No other groundwater sampling events have been conducted previously at the Site.

Table 2 has been updated to include TDS results.

I'll also add this email to App D for tracking and to go back to for requested items needed for approval.

If you would like to discuss this site in more detail please let me know. I would be happy to schedule a call with you to explain it all. Thank you for your time and have a great weekend!

Thank You,

Morgan Jordan | Project Manager | douglas.jordan@arcadis.com
Arcadis | Arcadis U.S., Inc.
[98 San Jacinto Blvd, Suite 414](#) | [Austin, TX](#) | [78701](#) | USA
M. +1 281 644 9437

Connect with us! www.arcadis.com | [LinkedIn](#) | [Twitter](#) | [Facebook](#)



Be green, leave it on the screen.

From: Brand, Chris <Chrisbrand@chevron.com>
Sent: Thursday, December 11, 2025 4:08 PM
To: Jordan, Morgan <Douglas.Jordan@arcadis.com>
Subject: Fw: The Oil Conservation Division (OCD) has rejected the application, Application ID: 533943

Arcadis Warning: Exercise caution with email messages from external sources such as this message. Always verify the sender and avoid clicking on links or scanning QR codes unless certain of their authenticity.

Chris Brand

661-401-0359

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>

Sent: Thursday, December 11, 2025 3:44:53 PM

To: Brand, Chris <Chrisbrand@chevron.com>

Subject: [****EXTERNAL****] The Oil Conservation Division (OCD) has rejected the application, Application ID: 533943

To whom it may concern (c/o Chris Brand for TEXACO EXPLORATION & PRODUCTION INC),

The OCD has rejected the submitted *Ground Water Abatement* (GROUND WATER ABATEMENT), for incident ID (n#) nPLM0830339670, for the following reasons:

- **Include TDS analyses in Table 2.**
- **Clarify only one sampling event in 2025.**
- **Resubmit 2025 Groundwater Monitoring Report by December 24, 2025.**

The rejected GROUND WATER ABATEMENT can be found in the OCD Online: Permitting - Action Status, under the Application ID: 533943.

Please review and make the required correction(s) prior to resubmitting.

If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional GROUND WATER ABATEMENT.

Thank you,

Shanna Smith

Environmental Specialist

575-263-4507

Shanna.Smith@emnrd.nm.gov

New Mexico Energy, Minerals and Natural Resources Department

1220 South St. Francis Drive

Santa Fe, NM 87505

From: Jordan, Morgan
Sent: Tuesday, December 2, 2025 1:06 PM
To: Jordan, Morgan
Subject: FW: The Oil Conservation Division (OCD) has rejected the application, Application ID: 528399

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Friday, November 21, 2025 1:03:22 PM
To: Brand, Chris <Chrisbrand@chevron.com>
Subject: [**EXTERNAL**] The Oil Conservation Division (OCD) has rejected the application, Application ID: 528399

To whom it may concern (c/o Chris Brand for TEXACO EXPLORATION & PRODUCTION INC),

The OCD has rejected the submitted *Ground Water Abatement* (GROUND WATER ABATEMENT), for incident ID (n#) nPLM0830339670, for the following reasons:

- **OCD records indicate that an approved Stage 1/2 plan is not on file. Pursuant to 19.15.30 NMAC Chevron Environmental Management Company (Chevron) must submit a Stage 1/2 Abatement plan no later than February 27, 2026, that meets all of the requirements of 19.15.30.13 NMAC.**
- **Submit quarterly monitoring and sampling reports.**
- **Clarify monitor well contained approximately 6 feet of LNAPL on 4/3/25 and 0.58 on 4/4/25. Report amount of LNAPL recovery.**
- **Include Site Map in reports.**
- **Resubmit 2025 AGWMR by December 12, 2025.**

The rejected GROUND WATER ABATEMENT can be found in the OCD Online: Permitting - Action Status, under the Application ID: 528399.

Please review and make the required correction(s) prior to resubmitting.

If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional GROUND WATER ABATEMENT.

Thank you,
Shanna Smith
Environmental Specialist
575-263-4507
Shanna.Smith@emnrd.nm.gov

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

From: Jordan, Morgan
Sent: Tuesday, December 2, 2025 1:04 PM
To: Jordan, Morgan
Subject: FW: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 502920

Thank You,

Morgan Jordan | Project Manager | douglas.jordan@arcadis.com
Arcadis | Arcadis U.S., Inc.
[98 San Jacinto Blvd, Suite 414](#) | [Austin, TX](#) | [78701](#) | USA
M. +1 281 644 9437

Connect with us! www.arcadis.com | [LinkedIn](#) | [Twitter](#) | [Facebook](#)



Be green, leave it on the screen.

From: Brand, Chris <Chrisbrand@chevron.com>
Sent: Thursday, October 9, 2025 11:10 AM
To: Smith, Shanna, EMNRD <Shanna.Smith@emnrd.nm.gov>
Cc: Jordan, Morgan <Douglas.Jordan@arcadis.com>
Subject: RE: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 502920

Arcadis Warning: Exercise caution with email messages from external sources such as this message. Always verify the sender and avoid clicking on links or scanning QR codes unless certain of their authenticity.

Shanna,
Chevron did not install these wells, nor were they registered. The limited information we have was submitted in the last report. We have surveyors scheduled and should have a more detailed report in a couple of weeks.

Chris Brand

Facility Decommissioning Engineer
Chevron Asset Retirement Onshore TX/NM
Midland, Texas 79706
Cell: (661) 401-0359
ChrisBrand@chevron.com



From: Smith, Shanna, EMNRD <Shanna.Smith@emnrd.nm.gov>
Sent: Tuesday, October 7, 2025 8:54 AM
To: Brand, Chris <Chrisbrand@chevron.com>
Subject: [**EXTERNAL**] RE: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 502920

Be aware this external email contains an attachment and/or link.

Ensure the email and contents are expected. If there are concerns, please submit suspicious messages to the Cyber Intelligence Center using the Report Phishing button.

Good Morning, Chris,

All groundwater reports are submitted under GW abatement, for now. We are working on updating GW permitting submissions.

Do you have information about the four existing monitor wells on location? We are still in discussion about the Stage 1 Plan.

Thank you,

Shanna Smith • Senior Environmental Scientist
Environmental Bureau Projects Group
EMNRD - Oil Conservation Division
1625 N. French Dr | Hobbs, NM 88240
575.263.4507 Shanna.Smith@emnrd.nm.gov
<http://www.emnrd.state.nm.us/OCD/>

Effective 12/1/2024: OCD has updated guidance on karst potential occurrence zones. This notice can be found at: <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> under “2024 OCD ANNOUNCEMENTS AND NOTIFICATIONS”.

The Digital C-141 guidance documents can be found at <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> or <https://www.emnrd.nm.gov/ocd/ocd-forms/>.

From: Brand, Chris <Chrisbrand@chevron.com>
Sent: Thursday, October 2, 2025 12:21 PM
To: Smith, Shanna, EMNRD <Shanna.Smith@emnrd.nm.gov>
Cc: Jordan, Morgan <douglas.jordan@arcadis.com>; Buchanan, Michael, EMNRD <Michael.Buchanan@emnrd.nm.gov>
Subject: RE: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 502920

Hi Shanna,

I hope you are well. We are currently working on getting a surveyor out to survey the monitor wells to determine the top of casings and define the groundwater potentiometric surface for the site. Once the wells are surveyed, we will re-submit the GWM report with the requested data within two weeks of receiving the survey data.

Additionally, the site has only been subject to groundwater monitoring once. The report previously submitted included the initial GWM event for the site. We would like to conduct the quarterly GWM through 2026 to gather more data before determining the next step for a Stage 1 Abatement Plan that adequately defines the site conditions.

I do have a question about how to properly submit a GWM report in the NMOCD Portal. This site has an Abatement Plan approved by NMOCD on January 10, 2024. I was trying to submit a GWM report, and it looks like the way I submitted the document triggered a new application for an Abatement Plan. When we go to submit the latest report, how do I properly submit it without triggering another application for Abatement?

Additionally, the OGRID issue has been resolved.

Thank you for your attention to this matter.

Chris Brand

Facility Decommissioning Engineer

Chevron Asset Retirement Onshore TX/NM

Midland, Texas 79706

Cell: (661) 401-0359

ChrisBrand@chevron.com



From: Smith, Shanna, EMNRD <Shanna.Smith@emnrd.nm.gov>

Sent: Monday, September 8, 2025 1:40 PM

To: Brand, Chris <Chrisbrand@chevron.com>

Cc: Jordan, Morgan <douglas.jordan@arcadis.com>; Buchanan, Michael, EMNRD <Michael.Buchanan@emnrd.nm.gov>

Subject: [**EXTERNAL**] RE: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 502920

Be aware this external email contains an attachment and/or link.

Ensure the email and contents are expected. If there are concerns, please submit suspicious messages to the Cyber Intelligence Center using the Report Phishing button.

Mr. Brand,

The Soil Closure Report is handled by Mr. Buchanan.

Due to groundwater contamination, the site follows the guidelines pursuant to 19.15.30 NMAC. Subsection A and C of 19.15.30.11 NMAC states the responsible person may submit stage 1 and stage 2 abatement plan proposals together. Stage 1 abatement plan's purpose is to design and conduct a site investigation that adequately defines the site conditions. This will include groundwater delineation. If groundwater contamination has been delineated a Stage 2 Abatement Plan will be required.

"Regarding the OGRID#, I am currently working with our regulatory team to get the proper form(s) submitted to resolve this issue. This is the first time we have been requested to change the Texaco OGRID, as Chevron acquired Texaco over twenty years ago." The OGRID # is how OCD permitting tracks the responsible party to an

incident. OCD Special Projects have recently taken over incidents involving groundwater impact. Going forward a few procedures might be different from the past.

If you have any further questions, please feel free to contact me.
Regards,

Shanna Smith • Senior Environmental Scientist
Environmental Bureau Projects Group
EMNRD - Oil Conservation Division
1625 N. French Dr | Hobbs, NM 88240
575.263.4507 Shanna.Smith@emnrd.nm.gov
<http://www.emnrd.state.nm.us/OCD/>

Effective 12/1/2024: OCD has updated guidance on karst potential occurrence zones. This notice can be found at: <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> under “2024 OCD ANNOUNCEMENTS AND NOTIFICATIONS”.

The Digital C-141 guidance documents can be found at <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> or <https://www.emnrd.nm.gov/ocd/ocd-forms/>.

From: Brand, Chris <Chrisbrand@chevron.com>
Sent: Monday, September 8, 2025 12:08 PM
To: Smith, Shanna, EMNRD <Shanna.Smith@emnrd.nm.gov>
Cc: Jordan, Morgan <douglas.jordan@arcadis.com>; Buchanan, Michael, EMNRD <Michael.Buchanan@emnrd.nm.gov>
Subject: [EXTERNAL] RE: The Oil Conservation Division (OCD) has rejected the application, Application ID: 502920

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Hi Shanna,

I hope this email finds you well.

I wanted to follow up regarding the soil remediation closure report we submitted. Chevron has provided the requested information that Mr. Buchanan asked for after our initial submission. As you know, this site is already on an abatement plan. We are requesting that this information be approved to meet Mr. Buchanan’s requirements.

To summarize Mr. Buchanan's request quoted from the OCD Portal:

07/09/2025	The soil remediation and reclamation closure is approved. In a letter dated December 12, 2023 from Chevron, App ID: 295342, additional soil AND groundwater assessment is required at the site. Currently, four unregistered monitoring wells with LNAPL are located at the site. The OCD notes that the most recent groundwater gauging data provided was in 2021. No current groundwater quality or sampling data is available as of late. Please provide groundwater sample data for all four monitoring wells, specifically for BTEX and Chloride, to the OCD no later than 60 days from receipt of this approval, by 09/08/2025
------------	--

Regarding the OGRID#, I am currently working with our regulatory team to get the proper form(s) submitted to resolve this issue. This is the first time we have been requested to change the Texaco OGRID, as Chevron acquired Texaco over twenty years ago.

Your attention to this matter is greatly appreciated. Please let me know if there are any further details or actions needed on our end.

Respectfully,

Chris Brand

Facility Decommissioning Engineer

Chevron Asset Retirement Onshore TX/NM

Midland, Texas 79706

Cell: (661) 401-0359

ChrisBrand@chevron.com



From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>

Sent: Monday, September 8, 2025 10:44 AM

To: Brand, Chris <Chrisbrand@chevron.com>

Subject: [****EXTERNAL****] The Oil Conservation Division (OCD) has rejected the application, Application ID: 502920

To whom it may concern (c/o Chris Brand for CHEVRON U S A INC),

The OCD has rejected the submitted *Ground Water Abatement* (GROUND WATER ABATEMENT), for incident ID (n#) nPLM0830339670, for the following reasons:

- **The report was submitted under [4323] Cheron USA INC. The operator on record for the incident nPLM0830339670 is [22351] TEXACO EXPLORATION AND PRODUCTION. The submittal OGRID must match the operator on record for the incident.**
- **Resubmit the report under the correct OGRID. If the operator on record for the incident is incorrect, submit a C-145F for a transfer of facility via the online permitting portal. Both operators involved in the transfer are required to confirm the transfer of the facility.**
- **Previous applications under the incorrect OGRID may have been submitted and accepted in the past. However, moving forward the OGRID of the submitting party must match the responsible party. Resubmit the report by October 6, 2025.**
- **1. Resubmit the 2025 GWMR no later than October 6, 2025 and include the following documents - Updated Potentiometric map of the location - Update tables to include Top of Casing. 2. All groundwater samples will be analyzed according to all constituents in**

20.6.2.3103 NMAC Pursuant to 19.15.30.9.B(2) NMAC. Operators may request to reduce sampling constituents based upon future results.

- **1. OCD records indicate that an approved Stage 1 plan is not on file. Pursuant to 19.15.30 NMAC Chevron Environmental Management Company must submit a Stage 1 Abatement plan no later than October 31, 2025, that meets all of the requirements of 19.15.30.13 NMAC**
- **2. Alternatively, if a Stage 1/Stage 2 Abatement Report has been approved by OCD, provide a copy of Stage 1/ Stage 2 Abatement Report by October 6, 2025, so OCD can update our Online records.**
- **4. Pursuant to Paragraph (5) of Subsection C of 19.15.30.13 a schedule for Stage 1 abatement plan activities, including the submission of summary quarterly progress reports. Chevron will submit quarterly monitoring and sampling reports going forward. 5. Submit a C-141N for all future monitoring and sampling events.**

The rejected GROUND WATER ABATEMENT can be found in the OCD Online: Permitting – Action Status, under the Application ID: 502920.

Please review and make the required correction(s) prior to resubmitting.

If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional GROUND WATER ABATEMENT.

Thank you,

Shanna Smith

Environmental Specialist

575-263-4507

Shanna.Smith@emnrd.nm.gov

New Mexico Energy, Minerals and Natural Resources Department

1220 South St. Francis Drive

Santa Fe, NM 87505

Arcadis U.S., Inc.
1330 Post Oak Blvd., Suite 2250
Houston
Texas 77056
Phone: 713 953 4800
www.arcadis.com

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 536391

CONDITIONS

Operator: TEXACO EXPLORATION & PRODUCTION INC P.O. Box 3109 Midland, TX BAD ADDR	OGRID: 22351
	Action Number: 536391
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
shanna.smith	Continue quarterly monitoring and sampling in all Site wells.	12/29/2025
shanna.smith	Continue LNAPL gauging/recovery on a quarterly basis. If LNAPL levels increase, gauging /recovery shall be increased to monthly events.	12/29/2025
shanna.smith	Stage 1/2 Abatement Plan will be submitted by February 27, 2026.	12/29/2025
shanna.smith	Quarterly reports shall follow each event.	12/29/2025