



February 9, 2024

New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**RE: Remediation Work Plan  
Chevron MCBU  
Hayhurst NM Section 9 CTB  
Eddy County, New Mexico  
nAPP2336158873**

Oil Conservation Division:

Tetra Tech, Inc. (Tetra Tech) was contacted by Chevron U.S.A., Inc. (Chevron) to assess a release that occurred at the Hayhurst NM Section 9 CTB, Unit P, Section 8, Township 26 South, Range 27 East, Eddy County, New Mexico (Site). The spill Site coordinates are 32.05254458°, -104.20154454°. The Site location is shown on **Figures 1 and 2**.

## **Background**

According to the State of New Mexico Notice of Release report, the release at the Site was due to a dump valve failure, causing the release of 10 barrels (bbls) of produced water; the release flowed under separators and above ground piping on the pad, impacting an area of approximately 3,500 square feet. On December 26, 2023, the release was discovered and reported to the New Mexico Oil Conservation Division (NMOCD).

## **Site Characterization**

### Significant Water Features

According to the (National Flood Hazard Layer) NFHL Flood Data Application and the (United States Geological Survey) USGS National Water Information System Mapper, there were no watercourses, lakebeds, sinkholes, playa lakes, springs, wetlands, subsurface mines, private domestic water wells, or floodplains located within the specified distances of the Site. However, the Site is located in a medium karst area. The NFHL Map and USGS Mapper are provided in **Appendix A**.

### Significant Boundaries

According to Google Earth US Government City Boundaries and US School Districts, the lateral extents of the release were not within incorporated municipal boundaries, a defined municipal fresh water well field, or a school district. Additionally, there were no occupied permanent residences, schools, hospitals, institutions, or churches located within the specified distances of the lateral extents of the release.



### Groundwater Review

Groundwater research was completed for the Site through the USGS National Water Information System and New Mexico Office of the State Engineer (NMOSE) Water Rights Reporting System. Results of groundwater research conducted through these two resources, show the three closest water wells within a 2-mile radius of the Site. Point of Diversion (POD) number C 02588 reported on the NMOSE Water Rights Reporting System is listed as having a total depth of 81 ft below ground surface (bgs), and measured water level of 19 ft bgs and is located approximately 1.88 miles from the Site. USGS well, number 320323104112901, reported on the USGS National Water Information System (NWIS) is listed as having a water level measured at 17.75 ft bgs and is approximately 0.64 miles from the Site. USGS well, number 320343104110201, reported on the USGS NWIS, is listed as having a water level measured at 8.94 ft bgs and is approximately 1.05 miles from the Site. The groundwater information is shown in **Appendix A**.

Distance from Site	Date of Data	Resource of Information	Depth of Well	Depth to Water
1.88 Miles	6/3/1998	NMOSE	81'	19'
0.64 Miles	1/28/2003	USGS	N/A	17.75'
1.05 Miles	1/9/2013	USGS	N/A	8.94'

### Regulatory

NMOCD Guidelines for Remediation of Leaks, Spills, and Releases, updated August 14, 2018, will be followed for the Site. The guidelines require a risk-based evaluation of the Site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene, and xylene (BTEX), total petroleum hydrocarbons (TPH), and chloride concentrations in the soil at the Site. The proposed RRALs for the Site were determined to be 10 milligrams per kilogram (mg/kg) for benzene, 50 mg/kg for total BTEX, 100 mg/kg for TPH and 600 mg/kg for Chloride in the soil.

### Site Assessment Activities

Tetra Tech conducted Site assessment activities on January 18, 2024. A total of three (3) auger holes (AH-1 through AH-3) were installed within the impacted area, to depths ranging from surface to 4 feet below ground surface (ft bgs) to attempt to assess and vertically delineate the impacted the area. Additionally, a total of four (4) horizontal auger holes (H-1 through H-4) were installed directly outside of the impact outline to total depth of 1.0 ft bgs, to horizontally delineate the impact. The extent of impact and delineation sample locations are shown on **Figure 3**.

The samples were submitted to Cardinal Laboratories in Hobbs, New Mexico to be analyzed for TPH by method 8015 modified, BTEX by method 8021B, and Chloride by EPA Method SM4500-Cl B. The analytical results are summarized in **Table 1** and the analytical laboratory reports are included in **Appendix B**.

Referring to Table 1, auger holes (AH-1 through AH-3) indicated chloride concentrations above RRALs, with concentrations ranging from 832 mg/kg to 5,120 mg/kg, at depths ranging



from surface to 3 ft bgs. Auger holes (AH-1 through AH-3) did not indicate benzene, BTEX, or TPH concentrations above laboratory detection limits. Additionally, horizontals (H-1 through H-4) did not indicate benzene, BTEX, TPH, or chloride concentrations above the determined RRALs for the Site. The release impacted area is vertically delineated at all of the vertical delineation sample points.

### Remediation Work Plan

Based on the C-141 (nAPP2336158873) and information provided by Chevron, Tetra Tech performed Site characterization and groundwater research to determine groundwater depth, release impact proximity from significant water features, and proximity from specified populated entities to determine RRALs and assess the impacted area. Based on the *OCD Guidelines for Remediation of Leaks, Spills, and Releases*, updated August 14, 2018, according to the groundwater data found during research activities, the most stringent RRALs of 600 mg/kg for chlorides and 100 mg/kg for TPH will be followed for the Site. Based on Tetra Tech assessment and delineation activities, laboratory results indicated chloride concentrations above RRALs, at auger holes (AH-1 through AH-3), at depths ranging from surface to 2-3 ft bgs.

Chevron proposes to excavate the impacted areas to the required depths as shown in **Table 1** and on **Figure 4**. The areas of auger hole (AH-1, AH-2, and AH-3) will be excavated to depths of 1 ft bgs, 2.5 ft bgs, and 1.5 ft bgs, respectively, or greater based on field screening and analytical results. Areas immediately adjacent to active equipment and underneath pipe racking within the release extent will be excavated to 6-inches bgs or a safely allowable depth to avoid destabilizing the soil supporting the active equipment at the Site.

Excavated soils will be transported offsite and disposed of at an NMOCD-approved or permitted facility. Five-point confirmation bottom and sidewall samples will be collected, representative of no more than approximately 200 square feet, for verification of remedial activities, and analyzed for TPH (Method 8015 Modified), BTEX (Method 8021B) and chloride (Method SM 4500-Cl B or equivalent). The estimated volume of material to be removed is approximately 60 cubic yards.

If you require any additional information or have any questions or comments, please contact Tetra Tech, Inc. at (432) 682-4559.

Respectfully submitted,  
TETRA TECH

A handwritten signature in blue ink that reads 'John Faught'.

John Faught, GIT  
Project Manager

A handwritten signature in blue ink that reads 'Clair Gonzales'.

Clair Gonzales, P.G.  
Senior Project Manager

### Enclosures:

Figure 1 - Site Location Map



Figure 2 – Topographic Map

Figure 3 – Delineation Assessment Map

Figure 4 – Proposed Excavation Map

Table 1 – Delineation Assessment Analytical Results

Photographic Documentation

Appendix A – Site Characterization

Appendix B – Analytical Laboratory Reports

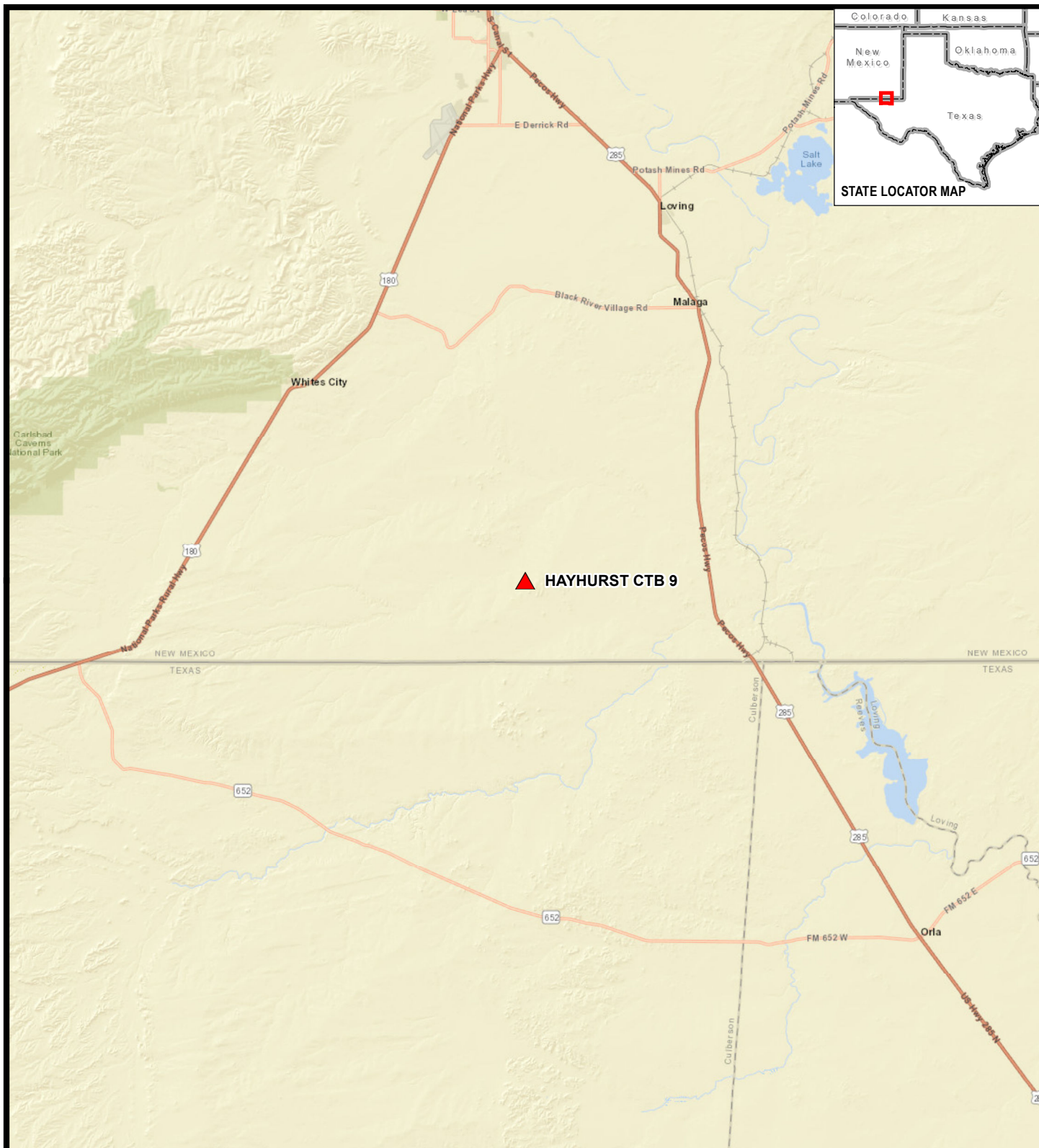




## Figures

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▲ APPROXIMATE SITE LOCATION



0 2.5 5  
Miles  
Approximate Scale in Miles

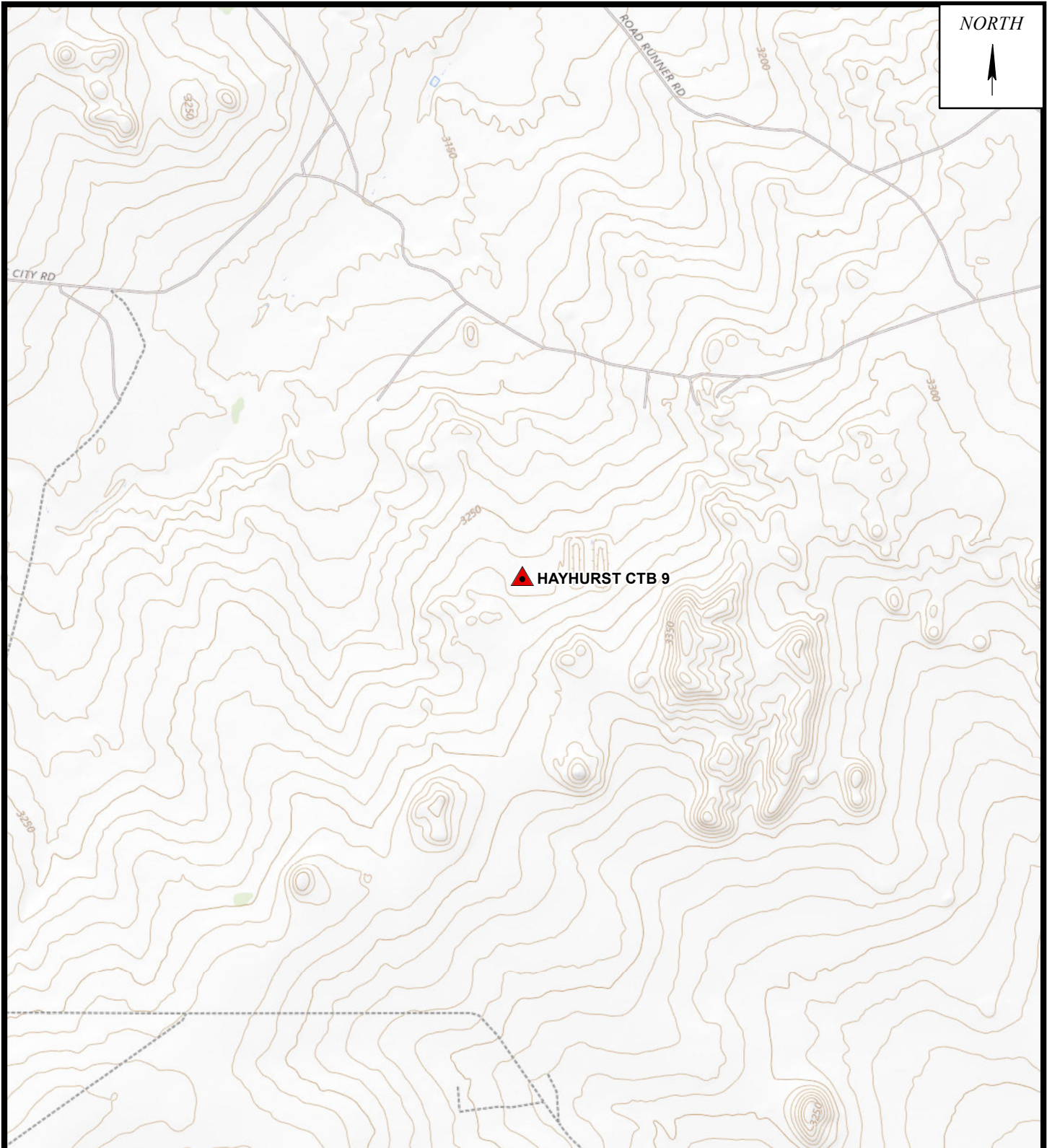
SITE LOCATION MAP  
HAYHURST CTB 9  
32.05254458, -104.20154454  
EDDY COUNTY, NEW MEXICO



Project #:  
212C-MD-03329

FIGURE  
1

Source: ESRI Basemap - Streets, 2024.



 APPROXIMATE SITE LOCATION



0 1,000 2,000  
Feet  
Approximate Scale in Feet

TOPOGRAPHIC MAP  
HAYHURST CTB 9  
32.05254458, -104.20154454  
EDDY COUNTY, NEW MEXICO



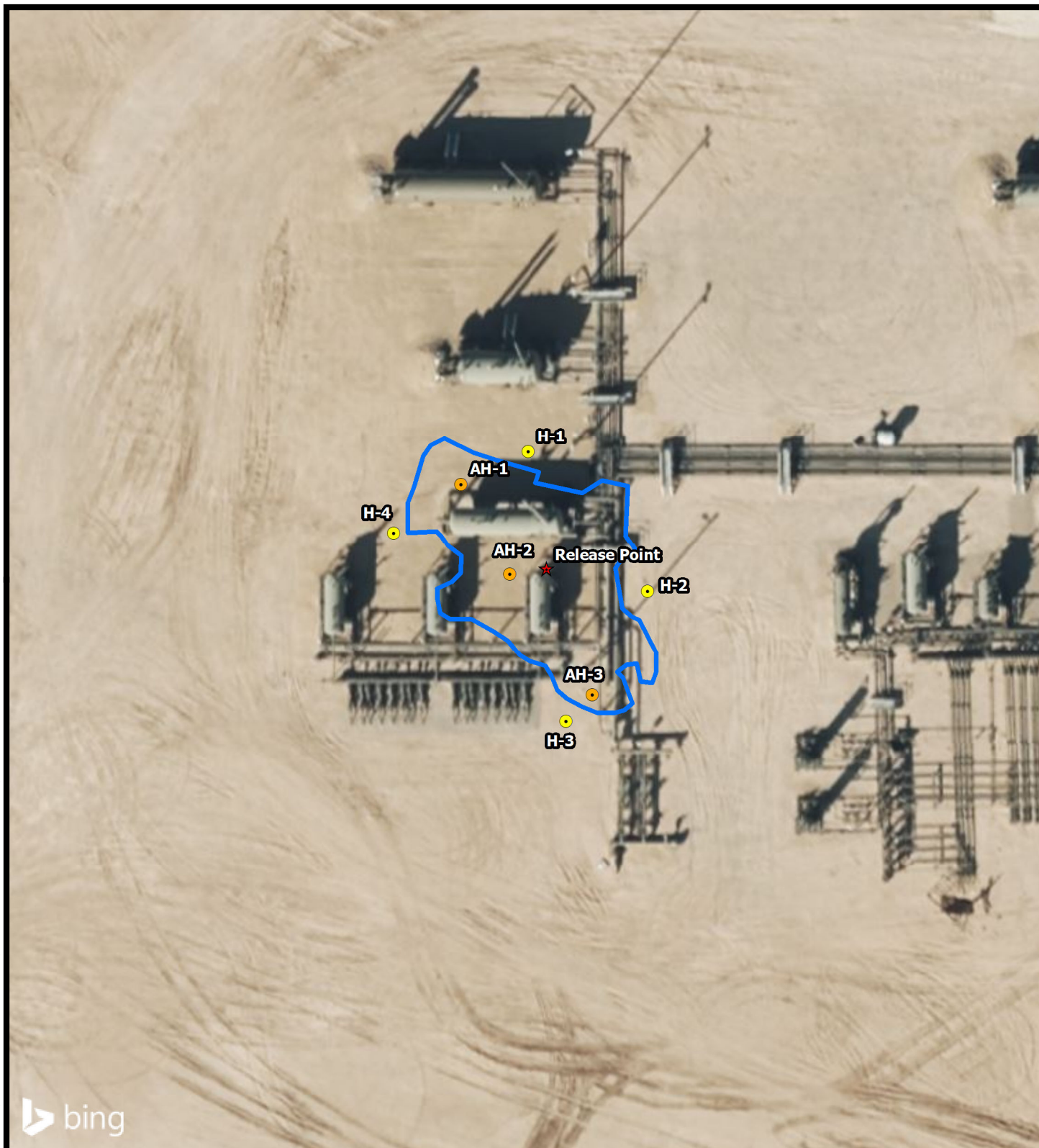
Project #:  
212C-MD-03329

FIGURE  
2

SOURCE: USGS 7.5 MINUTE SERIES,  
COTTONWOOD HILLS QUADRANGLE, TEXAS, 2024.

C:\Users\isabel\Documents\GIS\CHEVRON\212C-MD-03329 Chevron Hayhurst CTB 9\_FIG2.mxd 1/11/2024 Isabel Marmolejo





- VERTICAL SAMPLE LOCATION
- HORIZONTAL SAMPLE LOCATION
- ★ RELEASE POINT
- RELEASE FOOTPRINT



0 25 50 Feet  
Approximate Scale in Feet

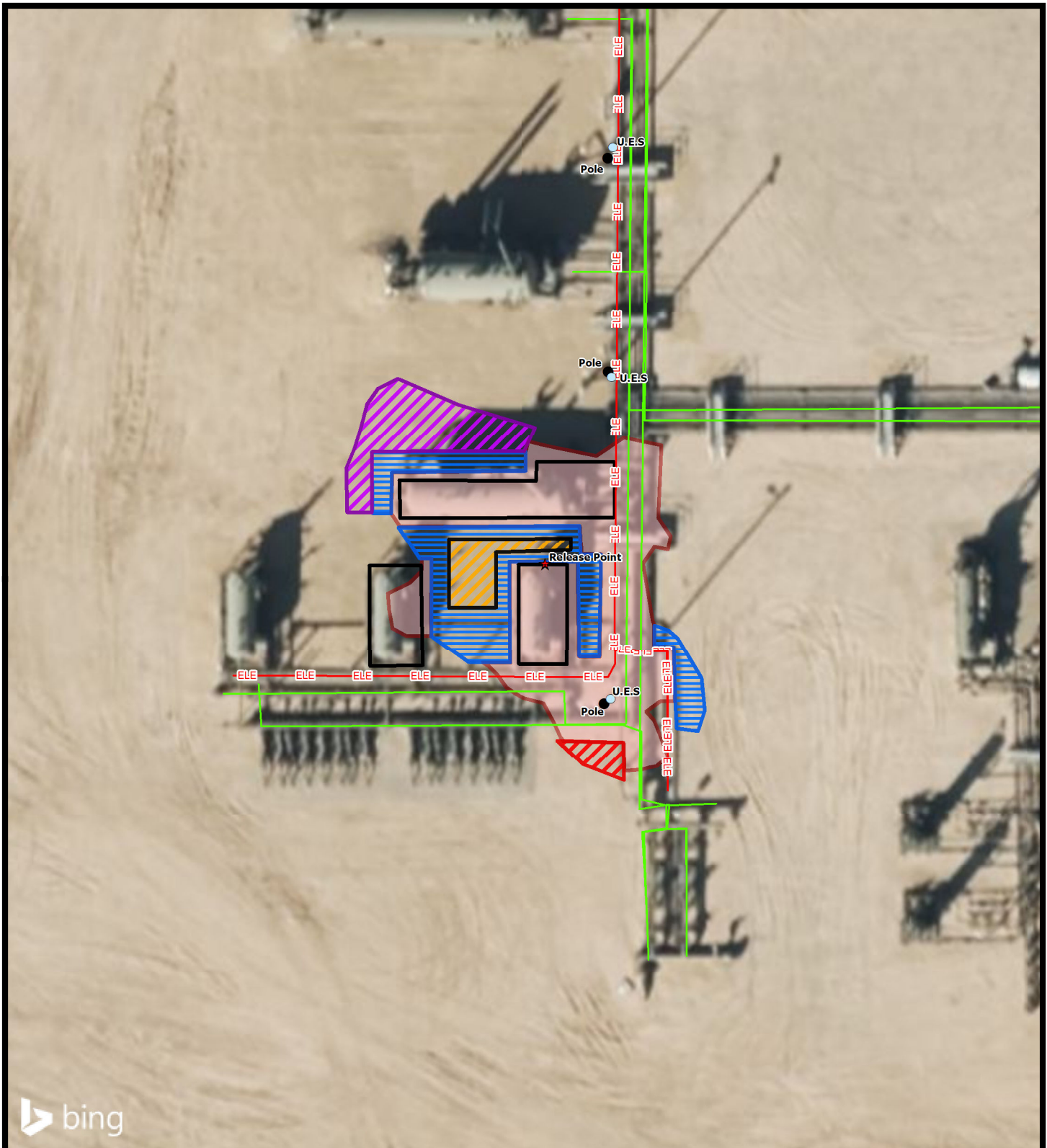
DELINEATION ASSESSMENT MAP  
HAYHURST CTB 9  
32.05254458, -104.20154454  
EDDY COUNTY, NEW MEXICO



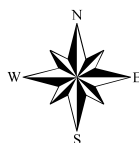
Project #:  
212C-MD-03329

FIGURE  
3

Source: ESRI Basemap - Imagery, 2024.



- ★ RELEASE POINT
- POLE
- U.E.S
- FLOWLINE
- ELE — SURFACE ELECTRICAL LINE
- ▭ HORIZONTAL SEPARATOR
- ▨ PROPOSED 0-6" EXCAVATION
- ▨ PROPOSED 1' EXCAVATION
- ▨ PROPOSED 1.5' EXCAVATION
- ▨ PROPOSED 2.5' EXCAVATION
- ▨ SURFACE SCRAPE



0 10 20  
Feet  
Approximate Scale in Feet

Source: ESRI Basemap - Imagery, 2024.

PROPOSED EXCAVATION MAP  
HAYHURST CTB 9  
32.05254458, -104.20154454  
EDDY COUNTY, NEW MEXICO



Project #:  
212C-MD-03329

FIGURE  
4



## Tables

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**Table 1**  
**Delineation Assessment Analytical Results**  
**Chevron MCBU**  
**Hayhurst NM Section 9 CTB**  
**Eddy County, New Mexico**

Sample ID	Sample Date	Excavation Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	Total						
RRALs														
AH-1	1/18/2024	0-1'	x	-	<10.0	<10.0	<10.0	100 mg/kg	10 mg/kg	<0.050	<0.050	<0.050	50 mg/kg	600 mg/kg
	1/18/2024	1-2'	x	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	2,440
	1/18/2024	2-3'	x	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	144
	1/18/2024	3-4'	x	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	144
AH-2	1/18/2024	0-1'	x	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	5,120
	1/18/2024	1-2'	x	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	832
	1/18/2024	2-3'	x	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	1,040
	1/18/2024	3-4'	x	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	336
AH-3	1/18/2024	0-1'	x	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	3,360
	1/18/2024	1-2'	x	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	848
	1/18/2024	2-3'	x	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	256
	1/18/2024	3-4'	x	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	336
H-1	1/18/2024	0-1'	x	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
H-2	1/18/2024	0-1'	x	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
H-3	1/18/2024	0-1'	x	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
H-4	1/18/2024	0-1'	x	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0

**NOTES**RRALs (Recommended Remediation Action Levels) are based on NMOCDD (New Mexico Oil Conservation Division) *Guidelines for Remediation of Leaks, Spills, and Releases*.

All screening values and results are presented in milligrams per kilogram (mg/kg)

**Bolded cells represent a detected concentration above the respective screening value.**


&lt; = analyte was not detected above the respective sample detection limit

ft = feet below ground surface

(-) = not analyzed for respective constituent

TPH = total petroleum hydrocarbons

BTEX = benzene, toluene, ethylbenzene, xylene

 Exceedance



# Photographic Documentation

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# Photographic Log

## Chevron MCBU

### Hayhurst NM Section 9 CTB Produced Water Release

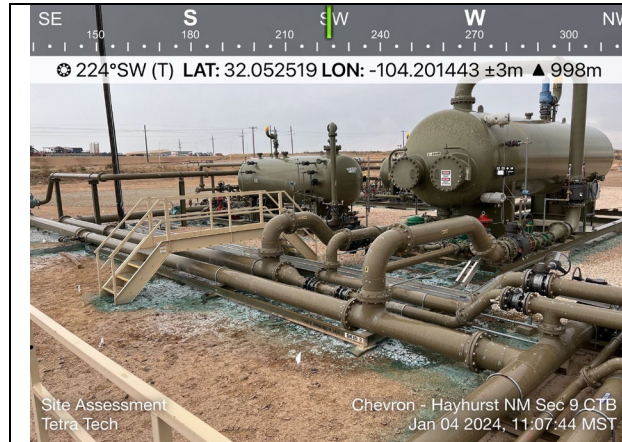


Photo 1: Southwest facing view of the release footprint.

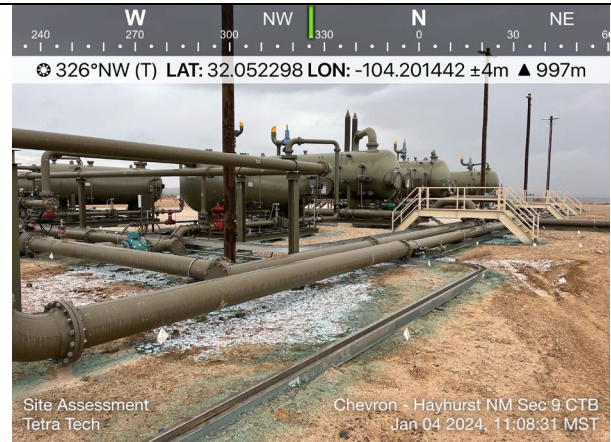


Photo 2: Northwest facing view of the release footprint.

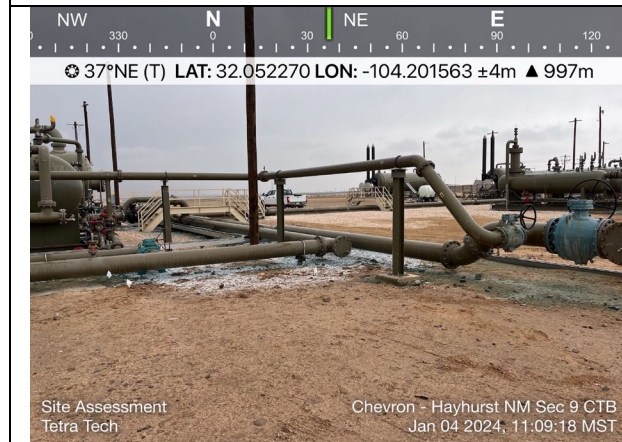


Photo 3: Northeast facing view of the release footprint.

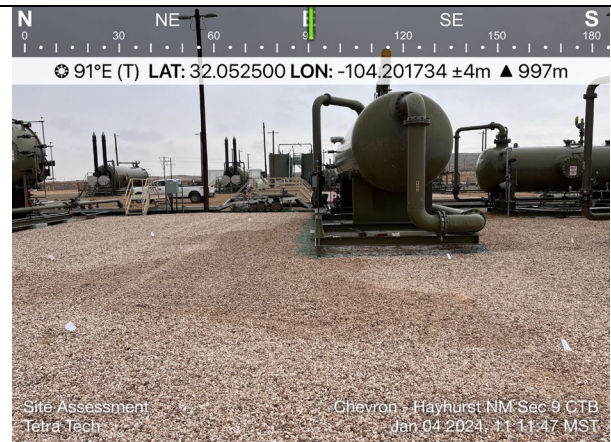


Photo 4: East facing view of the release footprint.



Photo 5: View of the release footprint underneath the active equipment at the Site.

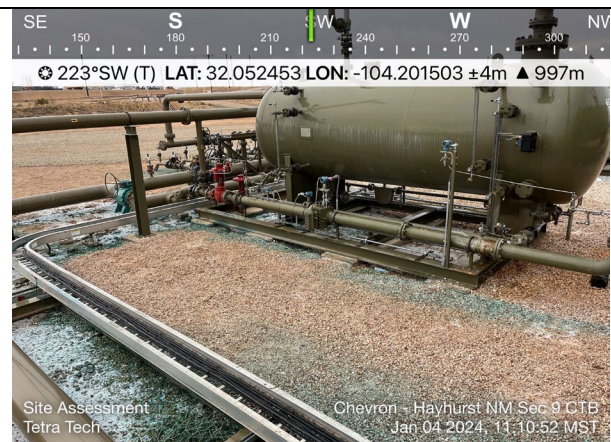



Photo 6: View of the release footprint underneath the active equipment at the Site.

Job No.	Page No.	Client:	Site Name:	
212C-MD-03329	1 of 1	Chevron MCBU	Hayhurst NM Section 9 CTB Produced Water Release	



# Appendix A

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## Site Characterization Documents

## **Site Characterization Summary**

### **Site Information:**

Chevron MCBU  
Hayhurst NM Section 9 CTB  
Eddy County, New Mexico  
T26S, R27E, Section 9, Unit M  
(32.05254458°, -104.20154454°)

### **Site Characterization:**

- Medium Karst
- No significant water features within specified distances
- Groundwater 19' BGS 1.88 Miles North. (NMOSE, Section 33, 1998 Sample)
- Groundwater 17.75' BGS 0.64 Miles Northeast. (USGS, Section 7, 2003 Sample)
- Groundwater 8.94' BGS 1.05 Miles Northwest. (USGS, Section 8, 2013 Sample)

### **RRALs:**

- 600 mg/kg Chlorides
- 100 mg/kg Total TPH
- 10 mg/kg Benzene
- 50 mg/kg Total BTEX

### **Explanation:**

Due to inadequate groundwater information (distance further than ½ mile/data dated >25 years), Most stringent RRALs will be followed unless groundwater determination bore is drilled, and no water is found at depths of at least 55' BGS or greater. However, based on the researched data, groundwater is reported shallow (below 50') to the North, West, and East.

Medium Karst

hevron MCBU

ayhurst NM Section 9 CTB

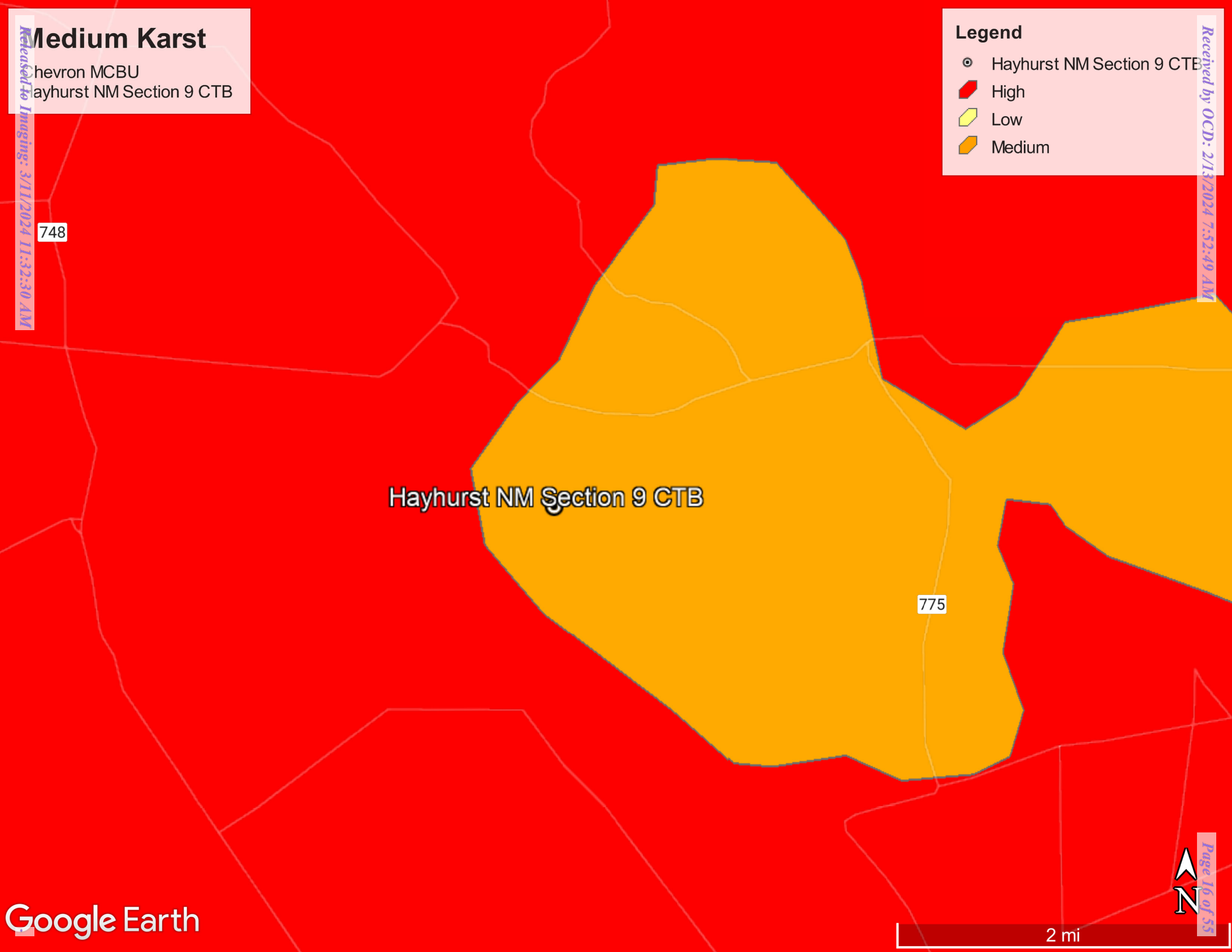
Legend

Hayhurst NM Section 9 CTB

High

Low

Medium



Released to Imaging: 3/11/2024 11:32:30 AM

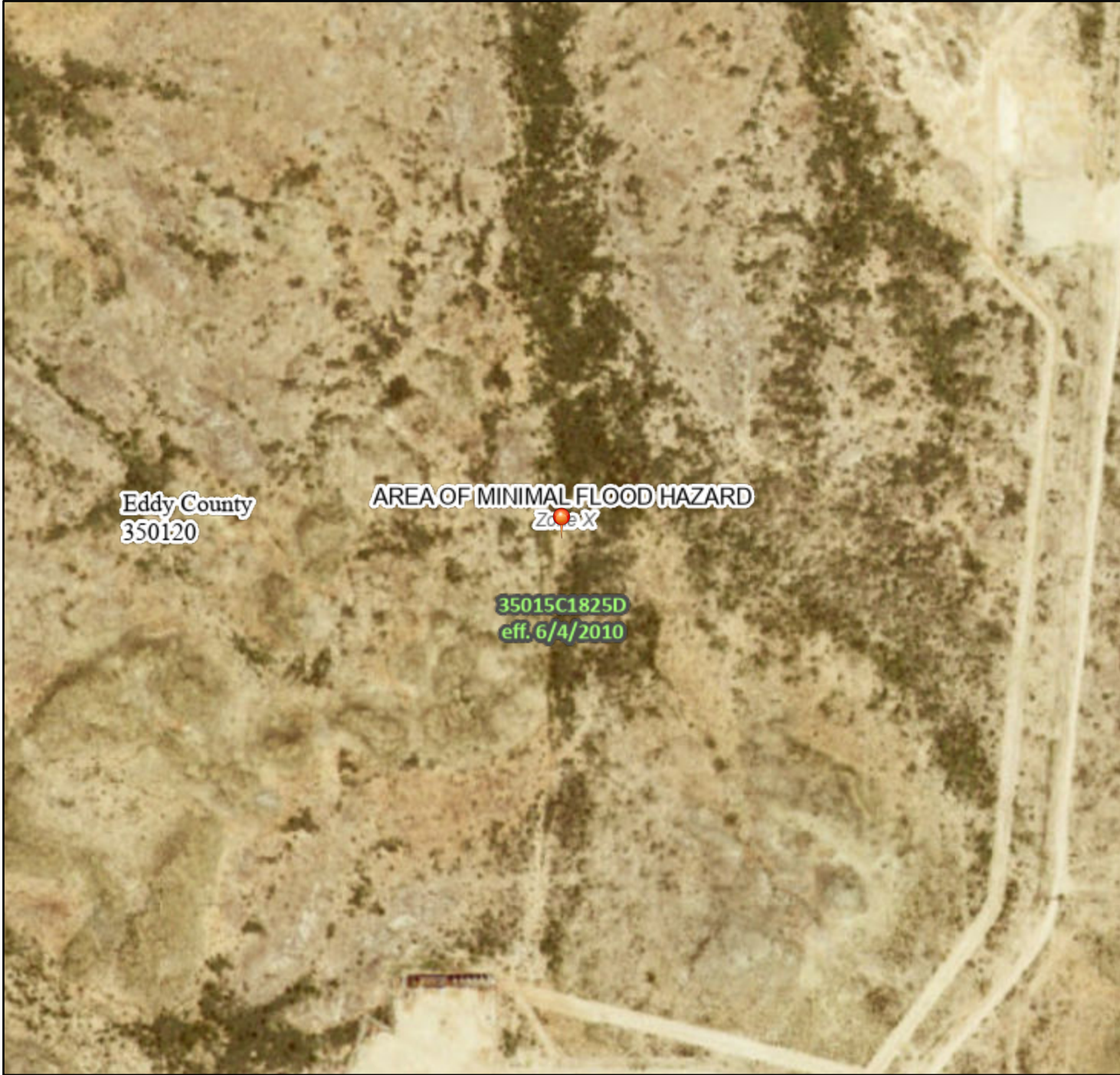
Received by OCD: 2/13/2024 7:52:49 AM



# National Flood Hazard Layer FIRMette



104°12'24"W 32°3'24"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

104°11'47"W 32°2'54"N

Released to Imaging: 3/11/2024 11:32:30 AM

Basemap Imagery Source: USGS National Map 2023

## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards


The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/18/2024 at 9:32 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)				(quarters are smallest to largest)				(NAD83 UTM in meters)	
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y		
C	02588	3	4	3	33	25S	27E	575645	3549575*		
Driller License: 1348		Driller Company:				TAYLOR WATER WELL SERVICE					
Driller Name:											
Drill Start Date: 05/31/1998		Drill Finish Date:				06/03/1998		Plug Date:			
Log File Date: 08/24/1998		PCW Rcv Date:						Source:		Shallow	
Pump Type:		Pipe Discharge Size:						Estimated Yield:		2 GPM	
Casing Size: 5.00		Depth Well:				81 feet		Depth Water:		19 feet	
Water Bearing Stratifications:					Top	Bottom	Description				
					21	23	Other/Unknown				
					52	81	Other/Unknown				
Casing Perforations:					Top	Bottom					
					53	81					


\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)				(NAD83 UTM in meters)			
		(quarters are smallest to largest)							
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 02588	3	4	3	33	25S	27E	575645	3549575* 
x									
Driller License: 1348		Driller Company:		TAYLOR WATER WELL SERVICE					
Driller Name:									
Drill Start Date: 05/31/1998		Drill Finish Date:		06/03/1998		Plug Date:			
Log File Date: 08/24/1998		PCW Rev Date:				Source:		Shallow	
Pump Type:		Pipe Discharge Size:				Estimated Yield:		2 GPM	
Casing Size: 5.00		Depth Well:		81 feet		Depth Water:		19 feet	
x									
Water Bearing Stratifications:				Top	Bottom	Description			
				21	23	Other/Unknown			
				52	81	Other/Unknown			
x									
Casing Perforations:				Top	Bottom				
				53	81				

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

1/18/24 9:05 AM

POINT OF DIVERSION SUMMARY



USGS Home  
Contact USGS  
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category:  
Groundwater

Geographic Area:  
United States

GO

Click to hideNews Bulletins

- Explore the NEW [USGS National Water Dashboard](#) interactive map to access real-time water data from over 13,500 stations nationwide.
- [Full News](#)

Groundwater levels for the Nation

Important: [Next Generation Monitoring Location Page](#)

Search Results -- 1 sites found

Agency code = usgs  
site\_no list =

- 320343104110201

Minimum number of levels = 1  
[Save file of selected sites](#) to local disk for future upload

USGS 320343104110201 26S.27E.08.13230

Eddy County, New Mexico  
Latitude 32°03'32.4", Longitude 104°13'03.9" NAD83  
Land-surface elevation 3,182.10 feet above NGVD29  
This well is completed in the Other aquifers (N9999OTHER) national aquifer.  
This well is completed in the Castile Formation (312CSTL) local aquifer.

Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>



Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1978-01-03			D62610		3164.52	NGVD29	1	Z			A
1978-01-03			D62611		3166.18	NAVD88	1	Z			A
1978-01-03			D72019	17.58			1	Z			A
1983-01-05			D62610		3166.54	NGVD29	1	Z			A
1983-01-05			D62611		3168.20	NAVD88	1	Z			A
1983-01-05			D72019	15.56			1	Z			A
1987-10-08			D62610		3167.72	NGVD29	1	Z			A
1987-10-08			D62611		3169.38	NAVD88	1	Z			A
1987-10-08			D72019	14.38			1	Z			A
1992-11-04			D62610		3165.85	NGVD29	1	S			A
1992-11-04			D62611		3167.51	NAVD88	1	S			A
1992-11-04			D72019	16.25			1	S			A
1998-01-13			D62610		3165.45	NGVD29	1	S			A
1998-01-13			D62611		3167.11	NAVD88	1	S			A
1998-01-13			D72019	16.65			1	S			A
2003-01-28			D62610		3164.88	NGVD29	1	S	USGS	S	A
2003-01-28			D62611		3166.54	NAVD88	1	S	USGS	S	A
2003-01-28			D72019	17.22			1	S	USGS	S	A
2013-01-09	21:45 UTC	m	62610		3173.16	NGVD29	1	S	USGS	S	A
2013-01-09	21:45 UTC	m	62611		3174.82	NAVD88	1	S	USGS	S	A
2013-01-09	21:45 UTC	m	72019	8.94			1	S	USGS	S	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface

Section	Code	Description
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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0.29   0.25   nadww02



National Water Information System: Web Interface


USGS Water Resources

Data Category:  
Groundwater

Geographic Area:  
United States

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Groundwater levels for the Nation

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Search Results -- 1 sites found

Agency code = usgs  
site\_no list =

- 320323104112901

Minimum number of levels = 1  
[Save file of selected sites](#) to local disk for future upload

USGS 320323104112901 26S.27E.07.414444

Eddy County, New Mexico  
Latitude 32°03'23", Longitude 104°11'29" NAD27  
Land-surface elevation 3,268 feet above NAVD88  
This well is completed in the Other aquifers (N9999OTHER) national aquifer.  
This well is completed in the Castile Formation (312CSTL) local aquifer.

Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
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Date	Time	? Water-level date- time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water- level approval status
1978-01-25			D62610		3257.04	NGVD29	1		Z		A
1978-01-25			D62611		3258.69	NAVD88	1		Z		A
1978-01-25			D72019	9.31			1		Z		A
1983-01-25			D62610		3258.77	NGVD29	P		Z		A
1983-01-25			D62611		3260.42	NAVD88	P		Z		A
1983-01-25			D72019	7.58			P		Z		A
1987-10-08			D62610		3258.70	NGVD29	1		Z		A
1987-10-08			D62611		3260.35	NAVD88	1		Z		A
1987-10-08			D72019	7.65			1		Z		A
1988-04-07			D62610		3259.93	NGVD29	1		Z		A
1988-04-07			D62611		3261.58	NAVD88	1		Z		A
1988-04-07			D72019	6.42			1		Z		A
1992-11-18			D62610		3257.57	NGVD29	1		S		A
1992-11-18			D62611		3259.22	NAVD88	1		S		A
1992-11-18			D72019	8.78			1		S		A
1998-01-13			D62610		3252.60	NGVD29	1		S		A
1998-01-13			D62611		3254.25	NAVD88	1		S		A
1998-01-13			D72019	13.75			1		S		A
2003-01-28			D62610		3248.60	NGVD29	1		S	USGS	S A
2003-01-28			D62611		3250.25	NAVD88	1		S	USGS	S A
2003-01-28			D72019	17.75			1		S	USGS	S A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988

Section	Code	Description
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Status	P	Pumping
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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**Title: Groundwater for USA: Water Levels**  
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0.35 0.3 nadww01





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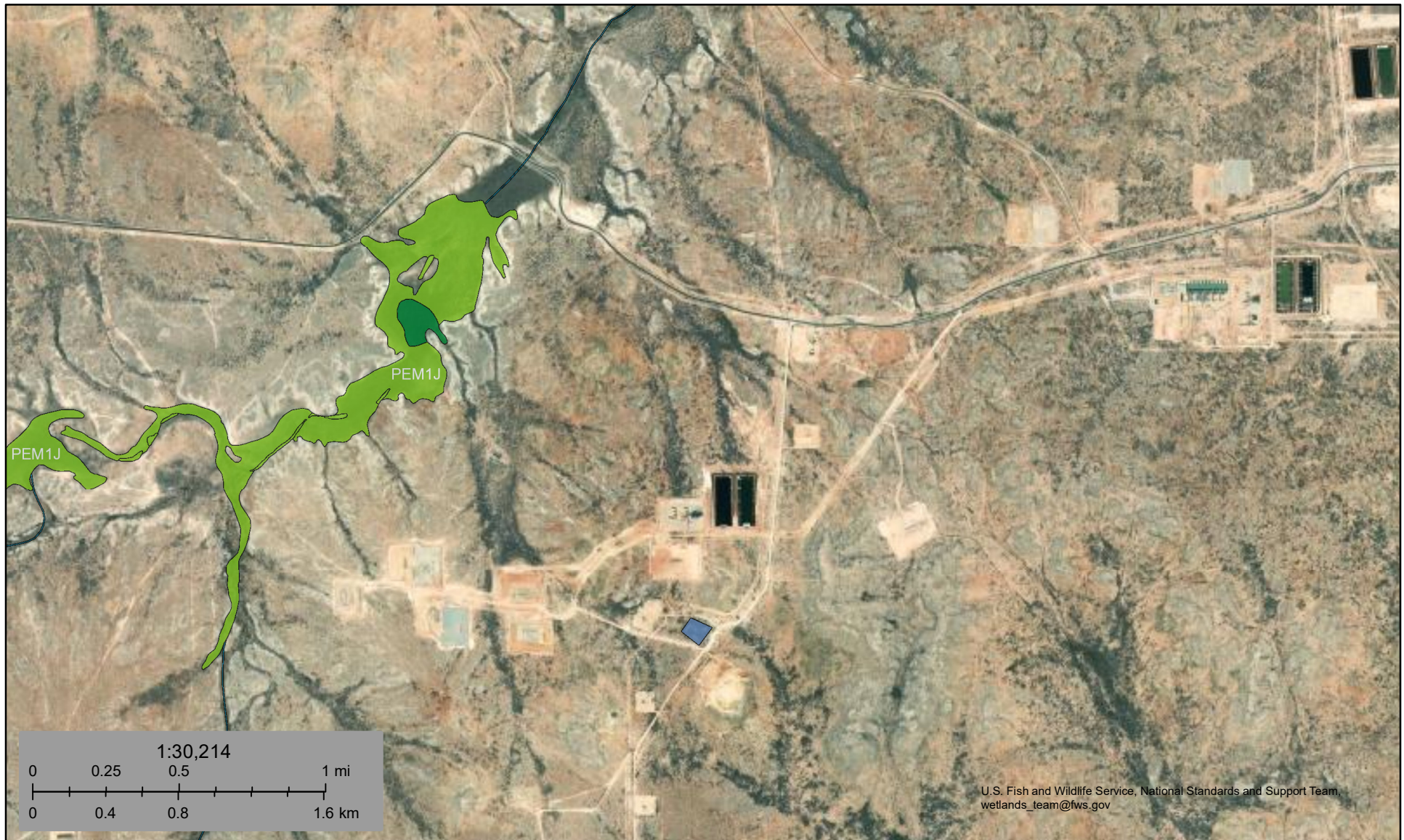


Site Information





## Hayhurst 9 CTB



January 4, 2024

**Wetlands**

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



## Appendix B

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Analytical Laboratory Reports





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

January 24, 2024

JOHN FAUGHT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: HAYHURST NM SECTION 9 CTB

Enclosed are the results of analyses for samples received by the laboratory on 01/19/24 11:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
 JOHN FAUGHT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	01/19/2024	Sampling Date:	01/18/2024
Reported:	01/24/2024	Sampling Type:	Soil
Project Name:	HAYHURST NM SECTION 9 CTB	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03329	Sample Received By:	Shari Cisneros
Project Location:	CHEVRON - EDDY CO NM		

**Sample ID: H - 1 (0-1') (H240234-01)**

BTX 8021B			mg/kg		Analyzed By: JH				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/20/2024	ND	2.20	110	2.00	0.995	
Toluene*	<0.050	0.050	01/20/2024	ND	2.18	109	2.00	0.595	
Ethylbenzene*	<0.050	0.050	01/20/2024	ND	2.17	108	2.00	0.718	
Total Xylenes*	<0.150	0.150	01/20/2024	ND	6.34	106	6.00	0.832	
Total BTX	<0.300	0.300	01/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 71.5-134

Chloride, SM4500Cl-B			mg/kg		Analyzed By: CT				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	01/19/2024	ND	448	112	400	0.00	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/19/2024	ND	212	106	200	2.18	
DRO >C10-C28*	<10.0	10.0	01/19/2024	ND	209	105	200	2.23	
EXT DRO >C28-C36	<10.0	10.0	01/19/2024	ND					

Surrogate: 1-Chlorooctane 74.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 70.8 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
JOHN FAUGHT  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701  
Fax To: (432) 682-3946

Received:	01/19/2024	Sampling Date:	01/18/2024
Reported:	01/24/2024	Sampling Type:	Soil
Project Name:	HAYHURST NM SECTION 9 CTB	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03329	Sample Received By:	Shari Cisneros
Project Location:	CHEVRON - EDDY CO NM		

**Sample ID: H - 2 (0-1') (H240234-02)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/20/2024	ND	2.20	110	2.00	0.995		
Toluene*	<0.050	0.050	01/20/2024	ND	2.18	109	2.00	0.595		
Ethylbenzene*	<0.050	0.050	01/20/2024	ND	2.17	108	2.00	0.718		
Total Xylenes*	<0.150	0.150	01/20/2024	ND	6.34	106	6.00	0.832		
Total BTEX	<0.300	0.300	01/20/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.7 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	01/19/2024	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	01/19/2024	ND	212	106	200	2.18		
DRO >C10-C28*	<10.0	10.0	01/19/2024	ND	209	105	200	2.23		
EXT DRO >C28-C36	<10.0	10.0	01/19/2024	ND						

Surrogate: 1-Chlorooctane 85.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.8 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
 JOHN FAUGHT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	01/19/2024	Sampling Date:	01/18/2024
Reported:	01/24/2024	Sampling Type:	Soil
Project Name:	HAYHURST NM SECTION 9 CTB	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03329	Sample Received By:	Shari Cisneros
Project Location:	CHEVRON - EDDY CO NM		

**Sample ID: H - 3 (0-1') (H240234-03)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/20/2024	ND	2.20	110	2.00	0.995	
Toluene*	<0.050	0.050	01/20/2024	ND	2.18	109	2.00	0.595	
Ethylbenzene*	<0.050	0.050	01/20/2024	ND	2.17	108	2.00	0.718	
Total Xylenes*	<0.150	0.150	01/20/2024	ND	6.34	106	6.00	0.832	
Total BTEX	<0.300	0.300	01/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	01/19/2024	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/19/2024	ND	212	106	200	2.18	
DRO >C10-C28*	<10.0	10.0	01/19/2024	ND	209	105	200	2.23	
EXT DRO >C28-C36	<10.0	10.0	01/19/2024	ND					

Surrogate: 1-Chlorooctane 77.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 72.9 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
JOHN FAUGHT  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701  
Fax To: (432) 682-3946

Received:	01/19/2024	Sampling Date:	01/18/2024
Reported:	01/24/2024	Sampling Type:	Soil
Project Name:	HAYHURST NM SECTION 9 CTB	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03329	Sample Received By:	Shari Cisneros
Project Location:	CHEVRON - EDDY CO NM		

**Sample ID: H - 4 (0-1') (H240234-04)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/20/2024	ND	2.20	110	2.00	0.995	
Toluene*	<0.050	0.050	01/20/2024	ND	2.18	109	2.00	0.595	
Ethylbenzene*	<0.050	0.050	01/20/2024	ND	2.17	108	2.00	0.718	
Total Xylenes*	<0.150	0.150	01/20/2024	ND	6.34	106	6.00	0.832	
Total BTEX	<0.300	0.300	01/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/19/2024	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/19/2024	ND	212	106	200	2.18	
DRO >C10-C28*	<10.0	10.0	01/19/2024	ND	209	105	200	2.23	
EXT DRO >C28-C36	<10.0	10.0	01/19/2024	ND					

Surrogate: 1-Chlorooctane 76.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 72.8 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
JOHN FAUGHT  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701  
Fax To: (432) 682-3946

Received:	01/19/2024	Sampling Date:	01/18/2024
Reported:	01/24/2024	Sampling Type:	Soil
Project Name:	HAYHURST NM SECTION 9 CTB	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03329	Sample Received By:	Shari Cisneros
Project Location:	CHEVRON - EDDY CO NM		

**Sample ID: AH - 1 (0-1') (H240234-05)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/20/2024	ND	2.20	110	2.00	0.995	
Toluene*	<0.050	0.050	01/20/2024	ND	2.18	109	2.00	0.595	
Ethylbenzene*	<0.050	0.050	01/20/2024	ND	2.17	108	2.00	0.718	
Total Xylenes*	<0.150	0.150	01/20/2024	ND	6.34	106	6.00	0.832	
Total BTEX	<0.300	0.300	01/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2440	16.0	01/19/2024	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/19/2024	ND	212	106	200	2.18	
DRO >C10-C28*	<10.0	10.0	01/19/2024	ND	209	105	200	2.23	
EXT DRO >C28-C36	<10.0	10.0	01/19/2024	ND					

Surrogate: 1-Chlorooctane 83.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.0 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 JOHN FAUGHT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	01/19/2024	Sampling Date:	01/18/2024
Reported:	01/24/2024	Sampling Type:	Soil
Project Name:	HAYHURST NM SECTION 9 CTB	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03329	Sample Received By:	Shari Cisneros
Project Location:	CHEVRON - EDDY CO NM		

**Sample ID: AH - 1 (1-2') (H240234-06)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/20/2024	ND	2.20	110	2.00	0.995		
Toluene*	<0.050	0.050	01/20/2024	ND	2.18	109	2.00	0.595		
Ethylbenzene*	<0.050	0.050	01/20/2024	ND	2.17	108	2.00	0.718		
Total Xylenes*	<0.150	0.150	01/20/2024	ND	6.34	106	6.00	0.832		
Total BTEX	<0.300	0.300	01/20/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	01/19/2024	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/19/2024	ND	212	106	200	2.18	
DRO >C10-C28*	<10.0	10.0	01/19/2024	ND	209	105	200	2.23	
EXT DRO >C28-C36	<10.0	10.0	01/19/2024	ND					

Surrogate: 1-Chlorooctane 83.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
JOHN FAUGHT  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701  
Fax To: (432) 682-3946

Received:	01/19/2024	Sampling Date:	01/18/2024
Reported:	01/24/2024	Sampling Type:	Soil
Project Name:	HAYHURST NM SECTION 9 CTB	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03329	Sample Received By:	Shari Cisneros
Project Location:	CHEVRON - EDDY CO NM		

**Sample ID: AH - 1 (2-3') (H240234-07)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/20/2024	ND	2.20	110	2.00	0.995	
Toluene*	<0.050	0.050	01/20/2024	ND	2.18	109	2.00	0.595	
Ethylbenzene*	<0.050	0.050	01/20/2024	ND	2.17	108	2.00	0.718	
Total Xylenes*	<0.150	0.150	01/20/2024	ND	6.34	106	6.00	0.832	
Total BTEX	<0.300	0.300	01/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.7 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	01/19/2024	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/19/2024	ND	212	106	200	2.18	
DRO >C10-C28*	<10.0	10.0	01/19/2024	ND	209	105	200	2.23	
EXT DRO >C28-C36	<10.0	10.0	01/19/2024	ND					

Surrogate: 1-Chlorooctane 81.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
JOHN FAUGHT  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701  
Fax To: (432) 682-3946

Received:	01/19/2024	Sampling Date:	01/18/2024
Reported:	01/24/2024	Sampling Type:	Soil
Project Name:	HAYHURST NM SECTION 9 CTB	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03329	Sample Received By:	Shari Cisneros
Project Location:	CHEVRON - EDDY CO NM		

**Sample ID: AH - 1 (3-4') (H240234-08)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/20/2024	ND	2.20	110	2.00	0.995		
Toluene*	<0.050	0.050	01/20/2024	ND	2.18	109	2.00	0.595		
Ethylbenzene*	<0.050	0.050	01/20/2024	ND	2.17	108	2.00	0.718		
Total Xylenes*	<0.150	0.150	01/20/2024	ND	6.34	106	6.00	0.832		
Total BTEx	<0.300	0.300	01/20/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.2 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	01/19/2024	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/19/2024	ND	212	106	200	2.18	
DRO >C10-C28*	<10.0	10.0	01/19/2024	ND	209	105	200	2.23	
EXT DRO >C28-C36	<10.0	10.0	01/19/2024	ND					

Surrogate: 1-Chlorooctane 81.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
JOHN FAUGHT  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701  
Fax To: (432) 682-3946

Received:	01/19/2024	Sampling Date:	01/18/2024
Reported:	01/24/2024	Sampling Type:	Soil
Project Name:	HAYHURST NM SECTION 9 CTB	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03329	Sample Received By:	Shari Cisneros
Project Location:	CHEVRON - EDDY CO NM		

**Sample ID: AH - 2 (0-1') (H240234-09)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/20/2024	ND	2.20	110	2.00	0.995		
Toluene*	<0.050	0.050	01/20/2024	ND	2.18	109	2.00	0.595		
Ethylbenzene*	<0.050	0.050	01/20/2024	ND	2.17	108	2.00	0.718		
Total Xylenes*	<0.150	0.150	01/20/2024	ND	6.34	106	6.00	0.832		
Total BTEx	<0.300	0.300	01/20/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5120	16.0	01/19/2024	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/19/2024	ND	212	106	200	2.18	QM-07
DRO >C10-C28*	<10.0	10.0	01/19/2024	ND	209	105	200	2.23	
EXT DRO >C28-C36	<10.0	10.0	01/19/2024	ND					

Surrogate: 1-Chlorooctane 87.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 JOHN FAUGHT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	01/19/2024	Sampling Date:	01/18/2024
Reported:	01/24/2024	Sampling Type:	Soil
Project Name:	HAYHURST NM SECTION 9 CTB	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03329	Sample Received By:	Shari Cisneros
Project Location:	CHEVRON - EDDY CO NM		

**Sample ID: AH - 2 (1-2') (H240234-10)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/20/2024	ND	2.20	110	2.00	0.995	
Toluene*	<0.050	0.050	01/20/2024	ND	2.18	109	2.00	0.595	
Ethylbenzene*	<0.050	0.050	01/20/2024	ND	2.17	108	2.00	0.718	
Total Xylenes*	<0.150	0.150	01/20/2024	ND	6.34	106	6.00	0.832	
Total BTEX	<0.300	0.300	01/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.3 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	832	16.0	01/19/2024	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/20/2024	ND	202	101	200	1.12	
DRO >C10-C28*	<10.0	10.0	01/20/2024	ND	192	95.8	200	5.32	
EXT DRO >C28-C36	<10.0	10.0	01/20/2024	ND					

Surrogate: 1-Chlorooctane 80.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
JOHN FAUGHT  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701  
Fax To: (432) 682-3946

Received:	01/19/2024	Sampling Date:	01/18/2024
Reported:	01/24/2024	Sampling Type:	Soil
Project Name:	HAYHURST NM SECTION 9 CTB	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03329	Sample Received By:	Shari Cisneros
Project Location:	CHEVRON - EDDY CO NM		

**Sample ID: AH - 2 (2-3') (H240234-11)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/20/2024	ND	2.20	110	2.00	0.995		
Toluene*	<0.050	0.050	01/20/2024	ND	2.18	109	2.00	0.595		
Ethylbenzene*	<0.050	0.050	01/20/2024	ND	2.17	108	2.00	0.718		
Total Xylenes*	<0.150	0.150	01/20/2024	ND	6.34	106	6.00	0.832		
Total BTEx	<0.300	0.300	01/20/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1040	16.0	01/19/2024	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/20/2024	ND	202	101	200	1.12	
DRO >C10-C28*	<10.0	10.0	01/20/2024	ND	192	95.8	200	5.32	
EXT DRO >C28-C36	<10.0	10.0	01/20/2024	ND					

Surrogate: 1-Chlorooctane 79.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
 JOHN FAUGHT  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	01/19/2024	Sampling Date:	01/18/2024
Reported:	01/24/2024	Sampling Type:	Soil
Project Name:	HAYHURST NM SECTION 9 CTB	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03329	Sample Received By:	Shari Cisneros
Project Location:	CHEVRON - EDDY CO NM		

**Sample ID: AH - 2 (3-4') (H240234-12)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/20/2024	ND	2.20	110	2.00	0.995	
Toluene*	<0.050	0.050	01/20/2024	ND	2.18	109	2.00	0.595	
Ethylbenzene*	<0.050	0.050	01/20/2024	ND	2.17	108	2.00	0.718	
Total Xylenes*	<0.150	0.150	01/20/2024	ND	6.34	106	6.00	0.832	
Total BTEX	<0.300	0.300	01/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	01/19/2024	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/20/2024	ND	202	101	200	1.12	
DRO >C10-C28*	<10.0	10.0	01/20/2024	ND	192	95.8	200	5.32	
EXT DRO >C28-C36	<10.0	10.0	01/20/2024	ND					

Surrogate: 1-Chlorooctane 78.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

TETRA TECH  
JOHN FAUGHT  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701  
Fax To: (432) 682-3946

Received:	01/19/2024	Sampling Date:	01/18/2024
Reported:	01/24/2024	Sampling Type:	Soil
Project Name:	HAYHURST NM SECTION 9 CTB	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03329	Sample Received By:	Shari Cisneros
Project Location:	CHEVRON - EDDY CO NM		

**Sample ID: AH - 3 (0-1') (H240234-13)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/20/2024	ND	2.20	110	2.00	0.995	
Toluene*	<0.050	0.050	01/20/2024	ND	2.18	109	2.00	0.595	
Ethylbenzene*	<0.050	0.050	01/20/2024	ND	2.17	108	2.00	0.718	
Total Xylenes*	<0.150	0.150	01/20/2024	ND	6.34	106	6.00	0.832	
Total BTEX	<0.300	0.300	01/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3360	16.0	01/19/2024	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/20/2024	ND	202	101	200	1.12	
DRO >C10-C28*	<10.0	10.0	01/20/2024	ND	192	95.8	200	5.32	
EXT DRO >C28-C36	<10.0	10.0	01/20/2024	ND					

Surrogate: 1-Chlorooctane 80.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

TETRA TECH  
JOHN FAUGHT  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701  
Fax To: (432) 682-3946

Received: 01/19/2024  
Reported: 01/24/2024  
Project Name: HAYHURST NM SECTION 9 CTB  
Project Number: 212C-MD-03329  
Project Location: CHEVRON - EDDY CO NM

Sampling Date: 01/18/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shari Cisneros

**Sample ID: AH - 3 (1-2') (H240234-14)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/20/2024	ND	2.20	110	2.00	0.995	
Toluene*	<0.050	0.050	01/20/2024	ND	2.18	109	2.00	0.595	
Ethylbenzene*	<0.050	0.050	01/20/2024	ND	2.17	108	2.00	0.718	
Total Xylenes*	<0.150	0.150	01/20/2024	ND	6.34	106	6.00	0.832	
Total BTEX	<0.300	0.300	01/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	848	16.0	01/19/2024	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/20/2024	ND	202	101	200	1.12	
DRO >C10-C28*	<10.0	10.0	01/20/2024	ND	192	95.8	200	5.32	
EXT DRO >C28-C36	<10.0	10.0	01/20/2024	ND					

Surrogate: 1-Chlorooctane 83.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
JOHN FAUGHT  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701  
Fax To: (432) 682-3946

Received:	01/19/2024	Sampling Date:	01/18/2024
Reported:	01/24/2024	Sampling Type:	Soil
Project Name:	HAYHURST NM SECTION 9 CTB	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03329	Sample Received By:	Shari Cisneros
Project Location:	CHEVRON - EDDY CO NM		

**Sample ID: AH - 3 (2-3') (H240234-15)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/20/2024	ND	2.20	110	2.00	0.995		
Toluene*	<0.050	0.050	01/20/2024	ND	2.18	109	2.00	0.595		
Ethylbenzene*	<0.050	0.050	01/20/2024	ND	2.17	108	2.00	0.718		
Total Xylenes*	<0.150	0.150	01/20/2024	ND	6.34	106	6.00	0.832		
Total BTEX	<0.300	0.300	01/20/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	01/19/2024	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/20/2024	ND	202	101	200	1.12	
DRO >C10-C28*	<10.0	10.0	01/20/2024	ND	192	95.8	200	5.32	
EXT DRO >C28-C36	<10.0	10.0	01/20/2024	ND					

Surrogate: 1-Chlorooctane 82.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

TETRA TECH  
JOHN FAUGHT  
901 WEST WALL STREET , STE 100  
MIDLAND TX, 79701  
Fax To: (432) 682-3946

Received:	01/19/2024	Sampling Date:	01/18/2024
Reported:	01/24/2024	Sampling Type:	Soil
Project Name:	HAYHURST NM SECTION 9 CTB	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03329	Sample Received By:	Shari Cisneros
Project Location:	CHEVRON - EDDY CO NM		

**Sample ID: AH - 3 (3-4') (H240234-16)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/20/2024	ND	2.20	110	2.00	0.995		
Toluene*	<0.050	0.050	01/20/2024	ND	2.18	109	2.00	0.595		
Ethylbenzene*	<0.050	0.050	01/20/2024	ND	2.17	108	2.00	0.718		
Total Xylenes*	<0.150	0.150	01/20/2024	ND	6.34	106	6.00	0.832		
Total BTEX	<0.300	0.300	01/20/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	01/19/2024	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/20/2024	ND	202	101	200	1.12	
DRO >C10-C28*	<10.0	10.0	01/20/2024	ND	192	95.8	200	5.32	
EXT DRO >C28-C36	<10.0	10.0	01/20/2024	ND					

Surrogate: 1-Chlorooctane 82.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

- QM-07      The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND      Analyte NOT DETECTED at or above the reporting limit
- RPD      Relative Percent Difference
- \*\*      Samples not received at proper temperature of 6°C or below.
- \*\*\*      Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "C. D. Keene".

Celey D. Keene, Lab Director/Quality Manager



Tetra Tech, Inc.

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

Analysis Request of Chain of Custody Record

Client Name:		Chevron		Site Manager:		John Faught	
Project Name:		Hayhurst NM Section 9 CTB		Project #:		212C-MD-03329	
Project Location:		Eddy County, TX		Project State:		212C-MD-03329	
Project Address:		John Faught1@tetratech.com; OGA.ECS.AccountsPayable@tetratech.com		Project City:		Miguel Flores	
Project Phone:		Cardinal Laboratories		Project Fax:		Miguel Flores	
Project Email:		Email: john.faught1@tetratech.com; clair.gonzales@tetratech.com		Project Signature:		Miguel Flores	
Project Notes:		LAB # 10240334		LAB USE ONLY			
SAMPLE IDENTIFICATION		YEAR: 2024		DATE		TIME	
H-1 (0-1')		1/18/2024		8:55		X	
H-2 (0-1')		1/18/2024		9:06		X	
H-3 (0-1')		1/18/2024		9:10		X	
H-4 (0-1')		1/18/2024		9:22		X	
AH-1 (0-1')		1/18/2024		7:45		X	
AH-1 (1-2')		1/18/2024		7:48		X	
AH-1 (2-3')		1/18/2024		7:53		X	
AH-1 (3-4')		1/18/2024		7:57		X	
AH-2 (0-2')		1/18/2024		8:02		X	
AH-2 (2-3')		1/18/2024		8:05		X	
AH-2 (3-4')		1/18/2024		8:05		X	
AH-2 (4-5')		1/18/2024		8:05		X	
AH-2 (5-6')		1/18/2024		8:05		X	
AH-2 (6-7')		1/18/2024		8:05		X	
AH-2 (7-8')		1/18/2024		8:05		X	
AH-2 (8-9')		1/18/2024		8:05		X	
AH-2 (9-10')		1/18/2024		8:05		X	
AH-2 (10-11')		1/18/2024		8:05		X	
AH-2 (11-12')		1/18/2024		8:05		X	
AH-2 (12-13')		1/18/2024		8:05		X	
AH-2 (13-14')		1/18/2024		8:05		X	
AH-2 (14-15')		1/18/2024		8:05		X	
AH-2 (15-16')		1/18/2024		8:05		X	
AH-2 (16-17')		1/18/2024		8:05		X	
AH-2 (17-18')		1/18/2024		8:05		X	
AH-2 (18-19')		1/18/2024		8:05		X	
AH-2 (19-20')		1/18/2024		8:05		X	
AH-2 (20-21')		1/18/2024		8:05		X	
AH-2 (21-22')		1/18/2024		8:05		X	
AH-2 (22-23')		1/18/2024		8:05		X	
AH-2 (23-24')		1/18/2024		8:05		X	
AH-2 (24-25')		1/18/2024		8:05		X	
AH-2 (25-26')		1/18/2024		8:05		X	
AH-2 (26-27')		1/18/2024		8:05		X	
AH-2 (27-28')		1/18/2024		8:05		X	
AH-2 (28-29')		1/18/2024		8:05		X	
AH-2 (29-30')		1/18/2024		8:05		X	
AH-2 (30-31')		1/18/2024		8:05		X	
AH-2 (31-32')		1/18/2024		8:05		X	
AH-2 (32-33')		1/18/2024		8:05		X	
AH-2 (33-34')		1/18/2024		8:05		X	
AH-2 (34-35')		1/18/2024		8:05		X	
AH-2 (35-36')		1/18/2024		8:05		X	
AH-2 (36-37')		1/18/2024		8:05		X	
AH-2 (37-38')		1/18/2024		8:05		X	
AH-2 (38-39')		1/18/2024		8:05		X	
AH-2 (39-40')		1/18/2024		8:05		X	
AH-2 (40-41')		1/18/2024		8:05		X	
AH-2 (41-42')		1/18/2024		8:05		X	
AH-2 (42-43')		1/18/2024		8:05		X	
AH-2 (43-44')		1/18/2024		8:05		X	
AH-2 (44-45')		1/18/2024		8:05		X	
AH-2 (45-46')		1/18/2024		8:05		X	
AH-2 (46-47')		1/18/2024		8:05		X	
AH-2 (47-48')		1/18/2024		8:05		X	
AH-2 (48-49')		1/18/2024		8:05		X	
AH-2 (49-50')		1/18/2024		8:05		X	
AH-2 (50-51')		1/18/2024		8:05		X	
AH-2 (51-52')		1/18/2024		8:05		X	
AH-2 (52-53')		1/18/2024		8:05		X	
AH-2 (53-54')		1/18/2024		8:05		X	
AH-2 (54-55')		1/18/2024		8:05		X	
AH-2 (55-56')		1/18/2024		8:05		X	
AH-2 (56-57')		1/18/2024		8:05		X	
AH-2 (57-58')		1/18/2024		8:05		X	
AH-2 (58-59')		1/18/2024		8:05		X	
AH-2 (59-60')		1/18/2024		8:05		X	
AH-2 (60-61')		1/18/2024		8:05		X	
AH-2 (61-62')		1/18/2024		8:05		X	
AH-2 (62-63')		1/18/2024		8:05		X	
AH-2 (63-64')		1/18/2024		8:05		X	
AH-2 (64-65')		1/18/2024		8:05		X	
AH-2 (65-66')		1/18/2024		8:05		X	
AH-2 (66-67')		1/18/2024		8:05		X	
AH-2 (67-68')		1/18/2024		8:05		X	
AH-2 (68-69')		1/18/2024		8:05		X	
AH-2 (69-70')		1/18/2024		8:05		X	
AH-2 (70-71')		1/18/2024		8:05		X	
AH-2 (71-72')		1/18/2024		8:05		X	
AH-2 (72-73')		1/18/2024		8:05		X	
AH-2 (73-74')		1/18/2024		8:05		X	
AH-2 (74-75')		1/18/2024		8:05		X	
AH-2 (75-76')		1/18/2024		8:05		X	
AH-2 (76-77')		1/18/2024		8:05		X	
AH-2 (77-78')		1/18/2024		8:05		X	
AH-2 (78-79')		1/18/2024		8:05		X	
AH-2 (79-80')		1/18/2024		8:05		X	
AH-2 (80-81')		1/18/2024		8:05		X	
AH-2 (81-82')		1/18/2024		8:05		X	
AH-2 (82-83')		1/18/2024		8:05		X	
AH-2 (83-84')		1/18/2024		8:05		X	
AH-2 (84-85')		1/18/2024		8:05		X	
AH-2 (85-86')		1/18/2024		8:05		X	
AH-2 (86-87')		1/18/2024		8:05		X	
AH-2 (87-88')		1/18/2024		8:05		X	
AH-2 (88-89')		1/18/2024		8:05		X	
AH-2 (89-90')		1/18/2024		8:05		X	
AH-2 (90-91')		1/18/2024		8:05		X	
AH-2 (91-92')		1/18/2024		8:05		X	
AH-2 (92-93')		1/18/2024		8:05		X	
AH-2 (93-94')		1/18/2024		8:05		X	
AH-2 (94-95')		1/18/2024		8:05		X	
AH-2 (95-96')		1/18/2024		8:05		X	
AH-2 (96-97')		1/18/2024		8:05		X	
AH-2 (97-98')		1/18/2024		8:05		X	
AH-2 (98-99')		1/18/2024		8:05		X	
AH-2 (99-100')		1/18/2024		8:05		X	
AH-2 (100-101')		1/18/2024		8:05		X	
AH-2 (101-102')		1/18/2024		8:05		X	
AH-2 (102-103')		1/18/2024		8:05		X	
AH-2 (103-104')		1/18/2024		8:05		X	
AH-2 (104-105')		1/18/2024		8:05		X	
AH-2 (105-106')		1/18/2024		8:05		X	
AH-2 (106-107')		1/18/2024		8:05		X	
AH-2 (107-108')		1/18/2024		8:05		X	
AH-2 (108-109')		1/18/2024		8:05		X	
AH-2 (109-110')		1/18/2024		8:05		X	
AH-2 (110-111')		1/18/2024		8:05		X	
AH-2 (111-112')		1/18/2024		8:05		X	
AH-2 (112-113')		1/18/2024		8:05		X	
AH-2 (113-114')		1/18/2024		8:05		X	
AH-2 (114-115')		1/18/2024		8:05		X	
AH-2 (115-116')		1/18/2024		8:05		X	
AH-2 (116-117')		1/18/2024		8:05		X	
AH-2 (117-118')		1/18/2024		8:05		X	
AH-2 (118-119')		1/18/2024		8:05		X	
AH-2 (119-120')		1/18/2024		8:05		X	
AH-2 (120-121')		1/18/2024		8:05		X	
AH-2 (121-122')		1/18/2024		8:05		X	
AH-2 (122-123')		1/18/2024		8:05		X	
AH-2 (123-124')		1/18/2024		8:05		X	
AH-2 (124-125')		1/18/2024		8:05		X	
AH-2 (125-126')		1/18/2024		8:05		X	
AH-2 (126-127')		1/18/2024		8:05		X	
AH-2 (127-128')		1/18/2024		8:05		X	
AH-2 (128-129')		1/18/2024		8:05		X	
AH-2 (129-130')		1/18/2024		8:05		X	
AH-2 (130-131')		1/18/2024		8:05		X	
AH-2 (131-132')		1/18/2024		8:05		X	
AH-2 (132-133')		1/18/2024		8:05		X	
AH-2 (133-134')		1/18/2024		8:05		X	
AH-2 (134-135')		1/18/2024		8:05		X	
AH-2 (135-136')		1/18/2024		8:05		X	
AH-2 (136-137')		1/18/2024		8:05		X	
AH-2 (137-138')		1/18/2024		8:05		X	
AH-2 (138-139')		1/18/2024		8:05		X	
AH-2 (139-140')		1/18/2024		8:05		X	
AH-2 (140-141')		1/18/2024		8:05		X	
AH-2 (141-142')		1/18/2024		8:05		X	
AH-2 (142-143')		1/18/2024		8:05		X	
AH-2 (143-144')		1/18/2024		8:05		X	
AH-2 (144-145')		1/18/2024		8:05		X	
AH-2 (145-146')		1/18/2024		8:05		X	
AH-2 (146-147')		1/18/2024		8:05		X	
AH-2 (147-148')		1/18/2024		8:05		X	
AH-2 (148-149')		1/18/2024		8:05		X	
AH-2 (149-150')		1/18/2024		8:05		X	
AH-2 (150-151')		1/18/2024		8:05		X	
AH-2 (151-152')		1/18/2024		8:05		X	
AH-2 (152-153')		1/18/2024		8:05		X	
AH-2 (153-154')		1/18/2024		8:05		X	
AH-2 (154-155')		1/18/2024		8:05		X	
AH-2 (155-156')		1/18/2024		8:05		X	
AH-2 (156-157')		1/18/2024		8:05		X	
AH-2 (157-158')		1/18/2024		8:05		X	
AH-2 (158-159')		1/18/2024		8:05		X	
AH-2 (159-160')		1/18/2024		8:05		X	
AH-2 (160-161')		1/18/2024		8:05		X	
AH-2 (161-162')		1/18/2024		8:05		X	
AH-2 (162-163')		1/18/2024		8:05		X	
AH-2 (163-164')		1/18/2024		8:05		X	
AH-2 (164-165')		1/18/2024		8:05		X	
AH-2 (165-166')		1/18/2024		8:05		X	
AH-2 (166-167')		1/18/2024		8:05		X	
AH-2 (167-168')		1/18/2024		8:05		X	
AH-2 (168-169')		1/18/2024		8:05		X	
AH-2 (169-170')		1/18/2024		8:05		X	
AH-2 (170-171')		1/18/2024		8:05		X	
AH-2 (171-172')		1/18/2024		8:05		X	
AH-2 (172-173')		1/18/2024		8:05		X	
AH-2 (173-174')		1/18/2024		8:05		X	
AH-2 (174-175')		1/18/2024		8:05		X	
AH-2 (175-176')		1/18/2024		8:05		X	
AH-2 (176-177')		1/18/2024		8:05		X	
AH-2 (177-178')		1/18/2024		8:05		X	
AH-2 (178-179')		1/18/2024		8:05		X	
AH-2 (179-180')		1/18/2024		8:05		X	
AH-2 (180-181')		1/18/2024		8:05		X	
AH-2 (181-182')		1/18/2024		8:05		X	
AH-2 (182-183')		1/18/2024		8:05		X	
AH-2 (183-184')		1/18/2024		8:05		X	
AH-2 (184-185')		1/18/2024		8:05		X	
AH-2 (185-186')		1/18/2024		8:05		X	



**Tetra Tech, Inc.**

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

## Analysis Request of Chain of Custody Record

Client Name:		Chevron		Site Manager:		John Faught	
Project Name:		Hayhurst NM Section 9 CTB		Project #:		212C-MD-03329	
Project Location:		Eddy County, TX		Project #:		212C-MD-03329	
Client to:		John.Faught1@tetrattech.com;		Client to:		John.Faught1@tetrattech.com;	
Billing to:		OGA.ECS.AccountsPayable@tetrattech.com		Billing to:		OGA.ECS.AccountsPayable@tetrattech.com	
Billing Laboratory:		Cardinal Laboratories		Sampler Signature:		Miguel Flores	
Comments:		Email: john.faught1@tetrattech.com; clair.gonzales@tetrattech.com		Comments:			
LAB #		210331		LAB USE ONLY			
SAMPLE IDENTIFICATION		DATE		TIME		WATER	
11		1/18/2024		8:06		X	
12		1/18/2024		8:10		X	
13		1/18/2024		8:15		X	
14		1/18/2024		8:21		X	
15		1/18/2024		8:25		X	
16		1/18/2024		8:29		X	
AH-2 (2-3)		1/18/2024		8:06		X	
AH-2 (3-4)		1/18/2024		8:10		X	
AH-3 (0-1)		1/18/2024		8:15		X	
AH-3 (1-2)		1/18/2024		8:21		X	
AH-3 (2-3)		1/18/2024		8:25		X	
AH-3 (3-4)		1/18/2024		8:29		X	
LAB USE ONLY		DATE		TIME		WATER	
11		1/18/2024		8:06		X	
12		1/18/2024		8:10		X	
13		1/18/2024		8:15		X	
14		1/18/2024		8:21		X	
15		1/18/2024		8:25		X	
16		1/18/2024		8:29		X	
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11		1/18/2024		8:06		X	
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13							

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

QUESTIONS

Action 313665

QUESTIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID:
	4323
	Action Number:
	313665
Action Type:	
[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)	

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2336158873
Incident Name	NAPP2336158873 HAYHURST NM SECTION 9 CTB @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received
Incident Facility	[fAPP2131341164] Hayhurst NM Section 9 CTB

Location of Release Source	
Please answer all the questions in this group.	
Site Name	Hayhurst NM Section 9 CTB
Date Release Discovered	12/26/2023
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure   Dump Valve   Produced Water   Released: 10 BBL   Recovered: 0 BBL   Lost: 10 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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Action 313665

**QUESTIONS (continued)**

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID:	4323
	Action Number:	313665
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**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	No
Reasons why this would be considered a submission for a notification of a major release	Unavailable.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

**Initial Response**

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Kennedy Lincoln Title: Environmental Specialist Email: kennedy.lincoln@chevron.com Date: 12/29/2023
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Action 313665

**QUESTIONS (continued)**

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID:
	4323
	Action Number:
	313665
Action Type:	
[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)	

**QUESTIONS****Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Less than or equal 25 (ft.)
What method was used to determine the depth to ground water	U.S. Geological Survey
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between ½ and 1 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Between ½ and 1 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

**Remediation Plan**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

**Soil Contamination Sampling:** (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride (EPA 300.0 or SM4500 Cl B)	600
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	100
GRO+DRO (EPA SW-846 Method 8015M)	0
BTEX (EPA SW-846 Method 8021B or 8260B)	50
Benzene (EPA SW-846 Method 8021B or 8260B)	10

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	04/15/2024
On what date will (or did) the final sampling or liner inspection occur	05/17/2024
On what date will (or was) the remediation complete(d)	04/26/2024
What is the estimated surface area (in square feet) that will be reclaimed	1036
What is the estimated volume (in cubic yards) that will be reclaimed	116
What is the estimated surface area (in square feet) that will be remediated	1036
What is the estimated volume (in cubic yards) that will be remediated	106

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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Action 313665

**QUESTIONS (continued)**

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID:	4323
	Action Number:	313665
	Action Type:	[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS****Remediation Plan (continued)**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

**This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:**

(Select all answers below that apply.)

(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	Sundance Services, Inc [fKJ1600527371]
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Kennedy Lincoln Title: Environmental Specialist Email: kennedy.lincoln@chevron.com Date: 02/13/2024
--	--

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.



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QUESTIONS, Page 5  
  
Action 313665

QUESTIONS (continued)

Operator:  CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID:  4323
	Action Number:  313665
	Action Type:  [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

<b>Deferral Requests Only</b>	
<i>Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.</i>	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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Action 313665

QUESTIONS (continued)

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	Action Number:	313665
	Action Type:	[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	{Unavailable.}

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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CONDITIONS  
  
Action 313665

CONDITIONS

Operator:  CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID:  4323
	Action Number:  313665
	Action Type:  [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Remediation Plan is Conditionally Approved. All samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards from Table 1 of the OCD Spill Rule for site assessment/characterization/proven depth to water determination. Sidewall/Edge samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. Please collect confirmation samples, representing no more than 200 ft2. All sidewall samples should be taken from the sidewall of the excavation. Please make sure that the edge of the release extent is accurately defined. The work will need to occur in 90 days after the report has been reviewed.	3/11/2024