

MCollier@H-R Enterprises.com 575-909-0326

# **Remediation and Closure Report**

Marquardt 1 Federal #013 & #014 CTB Incident# nAPP2328269861 Eddy County, New Mexico

# **Prepared For:**

Cimarex Energy Co. of Colorado 6001 Deauville Blvd. Suite 300N Midland, TX 79706

# **Prepared By:**

H&R Enterprises, LLC 5120 W. Kansas St. Hobbs, New Mexico 88242

November 13, 2023

Mr. Mike Bratcher **NMOCD** 1220 S. St. Francis Dr. Santa Fe, NM 87505

**Remediation and Closure Report** Subject:

Marguardt 1 Federal #013 & #014 CTB

Eddy County, NM

Dear Mr. Bratcher,

Cimarex Energy Co. of Colorado has contracted H&R Enterprises (H&R) to perform remediation and confirmation sampling services at the above-referenced location. The results of our remediation and confirmation sampling activities are contained herein.

## **Site Information**

The Marquardt 1 Federal #013 & #014 CTB is located approximately 16.9 miles South of Carlsbad, New Mexico. The legal location for this release is Unit Letter O, Section 1, Township 25 South and Range 26 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.15218 North and -104.24332 West. Site plans are presented in Appendix I.

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Reeves-Gypsum land complex, 0 to 3 percent slopes. The referenced soil data is attached in Appendix II. Drainage courses in this area are typically dry. The project site is located in a high Karst potential area (Karst Map, Appendix I).

referenced groundwater data.

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If a release occurs within the following areas, the responsible party must treat the release as if it occurred less than 50 feet to the groundwater in Table I, New Mexico Oil Conservation Division (NMOCD) Rule 19.15.29, NMAC.

## **Approximate Depth to Groundwater** 52 Feet/BGS ⊠No Yes Within 300 feet of any continuously flowing watercourse or any other significant watercourse No Yes Within 200 feet of any lakebed, sinkhole, or a playa lake ⊠No Yes Within 300 feet from an occupied permanent residence, school, hospital, institution, or church ⊠No Within 500 feet of a spring or a private, domestic fresh water well Yes used by less than five households for domestic or stock watering purposes ⊠No Yes Within 1000 feet of any freshwater well or spring Yes ⊠No Within incorporated municipal boundaries or within a defined municipal freshwater well field covered under a municipal ordinance adopted pursuant to Section 3-2703 NMSA 1978 Yes No Within 300 feet of a wetland No Yes Within the area overlying a subsurface mine Yes No Within an unstable area Yes $\boxtimes$ No Within a 100-year floodplain

As this is a remediation in a high karst potential area, the closure criteria for this site is as follows:

Table I								
	Closure Criteria for Soil	s Impacted by a Release						
Minimum depth	Constituent	Method*	Limit**					
below any point within the horizontal								
boundary of the								
release to ground								
water less than								
10,000 mg/I TDS								
≤ 50 feet	Chloride **	EPA 300.0 or	600 mg/kg					
		SM4500 CIB						
	TPH	EPA SW-846	100 mg/kg					
	(GRO+DRO+MRO)	Method 8015M						
	BTEX	EPA SW-846	50 mg/kg					
		Method 8021B or						
		8260B						
	Benzene	EPA SW-846	10 mg/kg					
		Method 8021B or						
		8260B						

# **Incident Description**

On October 8, 2023, it was discovered that a gasket on the heater treater failed and released 12 barrels (bbls) of fluid inside the lined containment and 4 bbls of fluid onto the well pad. A total of 5 bbls of crude oil and 11 bbls of produced water were released with a total of 13 bbls of fluid recovered.

5

H&R mobilized personnel to begin remediation and confirmation sampling activities of the release area. Composite confirmation samples were obtained from the bottom and sidewalls of the excavation and transported to Cardinal Laboratory for analysis. The results of that analysis are presented in the following data table. Confirmation sampling locations and excavation dimensions are illustrated on Confirmation Sample Map, Appendix I. Before, during, and after photographs of the location are attached in Appendix IV. Complete laboratory reports can be found in Appendix V.

Table 1: Composite Confirmation Soil Samples Analysis

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC		50 mg/kg	10 mg/kg		100 mg/kg	100 mg/kg	600 mg/kg		
S-1	11/2/2023	0.5'	ND	ND	ND	ND	ND	0	16
S-2	11/2/2023	0.5'	ND	ND	ND	ND	ND	0	16
S-3	11/2/2023	0.5'	ND	ND	ND	ND	ND	0	16
S-4	11/2/2023	0.5'	ND	ND	ND	ND	ND	0	32
SW-1	11/2/2023	0.5'	ND	ND	ND	ND	ND	0	16
SW-2	11/2/2023	0.5'	ND	ND	ND	ND	ND	0	16
SW-3	11/2/2023	0.5'	ND	ND	ND	ND	ND	0	16
SW-4	11/2/2023	0.5'	ND	ND	ND	ND	ND	0	ND

ND = Analyte Not Detected S = Bottom Composite Sample SW = Sidewall Composite sample

- The impacted areas in the vicinity of sample points S-1 through S-4 were excavated to a total depth of 0.5-feet BGS.
- Composite confirmation samples were obtained from the bottom and sidewalls of the excavated areas to verify that all contaminants above closure criteria had been removed.
- All the excavated material (12yds) was hauled to Lea Land, a NMOCD approved solid waste disposal facility.
- The excavated area on the well pad were backfilled with new caliche at depth and brought to grade, machine compacted and contoured to match the surrounding location.
- The Final C-141 formally documenting the remedial actions is attached in Appendix III.

H&R Enterprises, LLC (575) 909-0326 / (575) 605-3471

Released to Imaging: 2/16/2024 10:23:22 AM

6

7

# Closure

Based on the remedial actions and confirmation sampling results completed for this project, on behalf of Cimarex Energy Co. of Colorado we request that no further actions be required, and that closure of this incident be granted.

Should you have any questions or if further information is required, please do not hesitate to contact our office at 575-909-0326.

Respectfully submitted,

**H&R** Enterprises, LLC

Michael Collier

Michael Collier Environmental Project Manager

Attachments:

Appendix I Site Maps

Appendix II Soil Survey, Groundwater Data, FEMA Flood Zone

Appendix III Initial and Final C-141

Appendix IV Photographic Documentation

Appendix V Laboratory Reports

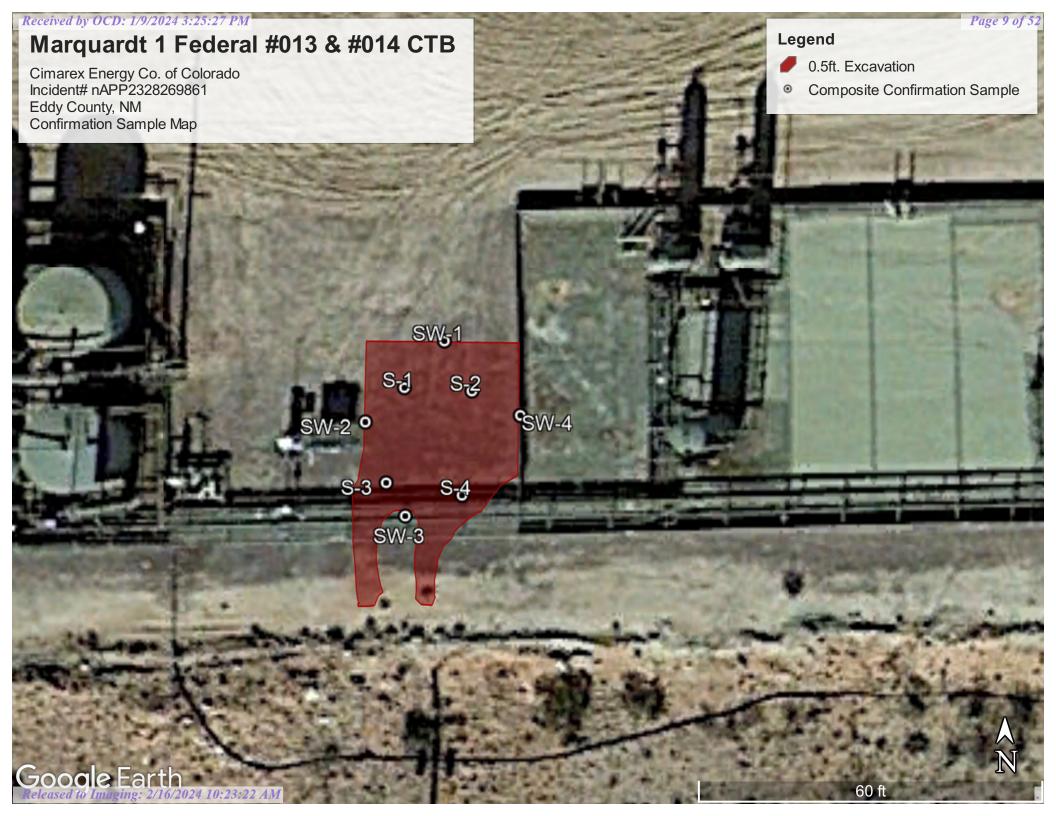
# **APPENDIX I**

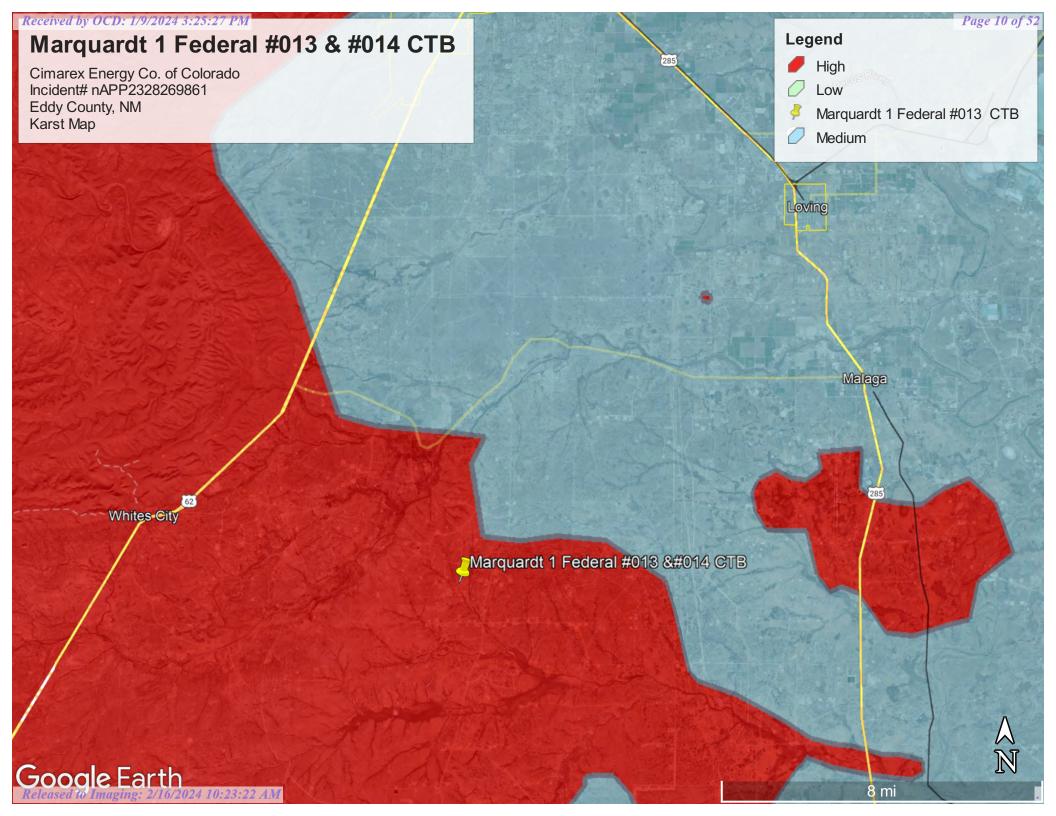
**SITE MAPS** 

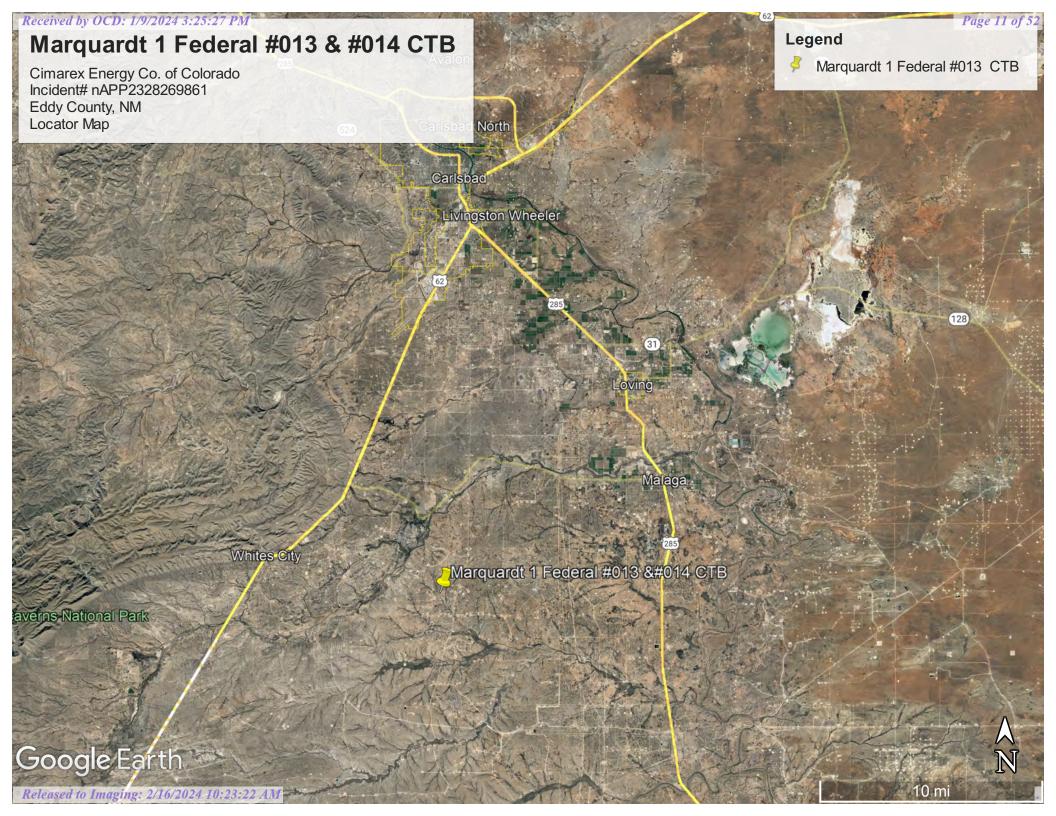
**KARST MAP** 

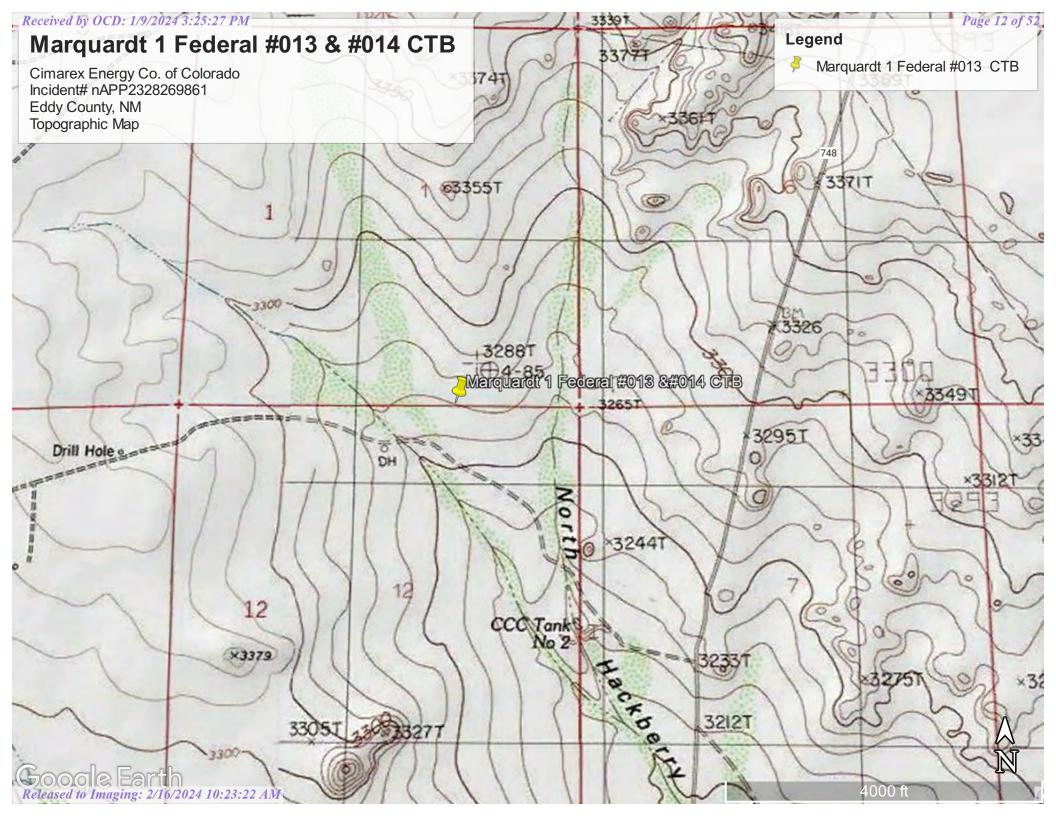
**TOPOGRAPHIC MAP** 

**LOCATOR MAP** 









# **APPENDIX II**

# **GROUNDWATER DATA**

**SOIL SURVEY** 

**FEMA FLOOD ZONE** 



# New Mexico Office of the State Engineer

# Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned,

C=the file is

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

closed)

(NAD83 UTM in meters)

(In feet)

		OD ub-		0	Q	0								,	Water
POD Number			County				Sec	Tws	Rng	X	Y	DistanceD	epthWellD	epthWater C	
C 03569 POD1	C	UB	ED	2	1	1	14	25S	26E	568862	3555746	3054	30	0	30
C 03200 POD1		C	ED	2	3	4	34	24S	26E	568206	3559349	3635	80	52	28
C 00819		C	ED		4	4	26	24S	26E	570022	3560935*	3662	62	42	20
C 04586 POD1		C	ED	4	1	1	35	24S	26E	568993	3560476	3778	150		
C 03654 POD1	C	UB	ED	2	3	1	24	25S	26E	570654	3553773	3811			
<u>C 01089</u>		C	ED	3	4	1	03	25S	26E	567505	3558398*	3941	96	45	51
C 03261 POD1	C	UB	ED	3	2	1	20	25S	27E	574007	3554006*	4407	351		
C 00262 POD2		C	ED	4	3	1	24	24S	26E	570234	3562337	4943	45	18	27

Average Depth to Water:

31 feet

Minimum Depth:

0 feet

Maximum Depth:

52 feet

**Record Count:** 8

**Basin/County Search:** 

County: Eddy

**UTMNAD83 Radius Search (in meters):** 

**Easting (X):** 571347.76 **Northing (Y):** 3557520.87 **Radius:** 5000

### \*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.

11/13/23 1:58 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

# **Eddy Area, New Mexico**

# RG—Reeves-Gypsum land complex, 0 to 3 percent slopes

## **Map Unit Setting**

National map unit symbol: 1w5f Elevation: 1,250 to 5,000 feet

Mean annual precipitation: 10 to 25 inches Mean annual air temperature: 57 to 70 degrees F

Frost-free period: 190 to 235 days

Farmland classification: Not prime farmland

## **Map Unit Composition**

Reeves and similar soils: 55 percent

Gypsum land: 30 percent
Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of

the mapunit.

#### **Description of Reeves**

## Setting

Landform: Ridges, plains, hills

Landform position (two-dimensional): Shoulder, backslope,

footslope, toeslope

Landform position (three-dimensional): Side slope, head slope,

nose slope, crest Down-slope shape: Convex Across-slope shape: Linear

Parent material: Residuum weathered from gypsum

#### Typical profile

H1 - 0 to 8 inches: loam H2 - 8 to 32 inches: clay loam

H3 - 32 to 60 inches: gypsiferous material

#### **Properties and qualities**

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Very low

to moderately low (0.00 to 0.06 in/hr) Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 25 percent

Gypsum, maximum content: 80 percent

Maximum salinity: Very slightly saline to moderately saline (2.0 to

8.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water supply, 0 to 60 inches: Low (about 4.3 inches)

# Interpretive groups

Land capability classification (irrigated): 3s Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: B

Ecological site: R070BC007NM - Loamy

Hydric soil rating: No

# **Description of Gypsum Land**

### Setting

Landform: Ridges, plains, hills

Landform position (two-dimensional): Shoulder, backslope,

footslope, toeslope

Landform position (three-dimensional): Side slope, head slope,

nose slope, crest Down-slope shape: Convex Across-slope shape: Linear

Parent material: Residuum weathered from gypsum

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: No

#### **Minor Components**

#### Reagan

Percent of map unit: 5 percent

Ecological site: R070BC007NM - Loamy

Hydric soil rating: No

#### Largo

Percent of map unit: 5 percent

Ecological site: R070BC007NM - Loamy

Hydric soil rating: No

#### Cottonwood

Percent of map unit: 5 percent

Ecological site: R070BC033NM - Salty Bottomland

Hydric soil rating: No

# **Data Source Information**

Soil Survey Area: Eddy Area, New Mexico Survey Area Data: Version 19, Sep 7, 2023

# Received by OCD: 1/9/2024 3:25:27 PM National Flood Hazard Layer FIRMette





SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT Without Base Flood Elevation (BFE) With BFE or Depth Zone AE, AO, AH, VE, AR SPECIAL FLOOD HAZARD AREAS Regulatory Floodway 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 OTHER AREAS OF FLOOD HAZARD Area with Flood Risk due to Levee Zone D NO SCREEN Area of Minimal Flood Hazard Zone X Effective LOMRs OTHER AREAS Area of Undetermined Flood Hazard Zone D - - - Channel, Culvert, or Storm Sewer **GENERAL** STRUCTURES | LILLIL Levee, Dike, or Floodwall 20.2 Cross Sections with 1% Annual Chance 17.5 Water Surface Elevation **Coastal Transect** Base Flood Elevation Line (BFE) Limit of Study **Jurisdiction Boundary** --- Coastal Transect Baseline OTHER **Profile Baseline FEATURES** Hydrographic Feature Digital Data Available No Digital Data Available MAP PANELS Unmapped

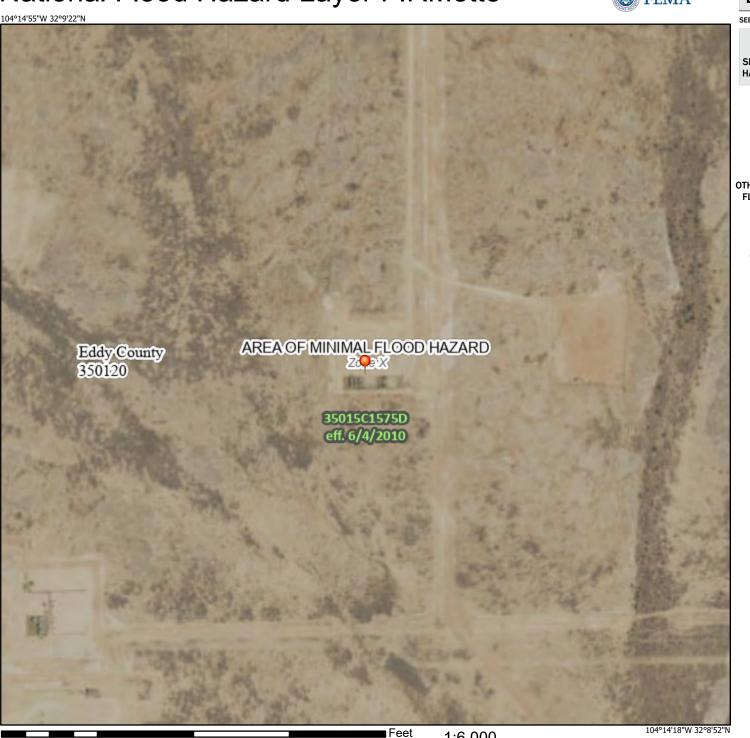
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

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

an authoritative property location.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/13/2023 at 4:32 PM 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.



# **APPENDIX III**

**INITIAL C-141** 

**FINAL C-141** 

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

Incident ID	nAPP2328269861
District RP	
Facility ID	fAPP2202672348
Application ID	

# **Release Notification**

# **Responsible Party**

			IXCS	ponsible i a	ity					
Responsible	Party: Cima	arex Energy Co. o	f Colorado	OGRID	OGRID: 162683					
Contact Nan	ne: Laci Lui	g		Contact	Contact Telephone: (432) 571-7800					
Contact ema	il: laci.luig@	@coterra.com		Inciden	t # (assigned by OCD) nAPP2328269861					
Contact mail Midland, TX		: 6001 Deauville	Blvd., Suite 300N	I						
			Location	n of Release	Source					
Latitude 32.1	15218		(NAD 83 in a	Longitud decimal degrees to 5 de	e -104.24332					
Site Name: M	Marquardt 1	Federal 13 & 14H	[	Site Typ	e: Battery					
Date Release	Discovered	: 10/8/2023		API# (if	applicable)					
Unit Letter	Section	Township	Range		ounty					
O	1	25S	26E	Eddy	<u>`</u>					
	Materia		all that apply and atta	nd Volume o	ific justification for the volumes provided below)					
Crude Oi	1	Volume Releas	ed (bbls) 5		Volume Recovered (bbls) 5					
Produced	l Water	Volume Releas	ed (bbls) 11		Volume Recovered (bbls) 8					
			ation of dissolved >10,000 mg/l?	chloride in the	⊠ Yes □ No					
Condensa	ate	Volume Releas			Volume Recovered (bbls)					
Natural C	Gas	Volume Releas	ed (Mcf)		Volume Recovered (Mcf)					
Other (de	escribe)	Volume/Weigh	t Released (provi	de units)	Volume/Weight Recovered (provide units)					
fluids inside containment Released: 16	reater gasket the containr is scheduled barrels fluid t = 4 barrels	failed and release ment were recover d to be washed. A d oil + 8 barrels wa	red along with 1 b n environmental o	oarrel fluid from th	ined containment and 4 barrels fluid onto the well pad. All he well pad. The failed gasket will be replaced and the cheduled to remove impacted soils in the coming weeks.					
Containment										

Page 20 of 52

Incident ID nAPP2328269861

District RP
Facility ID fAPP2202672348

Application ID

Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the res	sponsible party consider this a major release?
☐ Yes ⊠ No		
If YES, was immediate no By: Laci Luig To: OCD Enviro, BLM By: Email	otice given to the OCD? By whom? To	whom? When and by what means (phone, email, etc)?
	Initial	Response
The responsible	party must undertake the following actions immed	iately unless they could create a safety hazard that would result in injury
The source of the rele	ease has been stopped.	
The impacted area ha	s been secured to protect human health	and the environment.
Released materials ha	ave been contained via the use of berms	or dikes, absorbent pads, or other containment devices.
All free liquids and re	ecoverable materials have been removed	and managed appropriately.
If all the actions described	d above have <u>not</u> been undertaken, expla	in why:
has begun, please attach	a narrative of actions to date. If remed	ce remediation immediately after discovery of a release. If remediation ial efforts have been successfully completed or if the release occurred C), please attach all information needed for closure evaluation.
regulations all operators are public health or the environr failed to adequately investig	required to report and/or file certain release ment. The acceptance of a C-141 report by tate and remediate contamination that pose a	the best of my knowledge and understand that pursuant to OCD rules and notifications and perform corrective actions for releases which may endanger the OCD does not relieve the operator of liability should their operations have threat to groundwater, surface water, human health or the environment. In r of responsibility for compliance with any other federal, state, or local laws
Printed Name: Laci Luig_		Title: ESH Specialist
Signature:	c. 0	Date: 10/9/2023
email: laci.luig@coterra.c	com	Telephone: (432) 208-3035
OCD Only		
-		Date:
Received by.		Date.













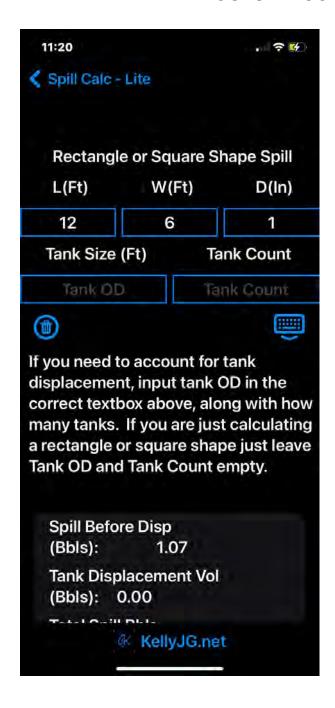


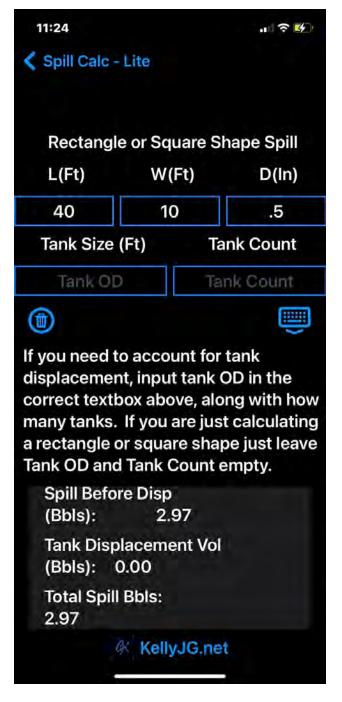






# **OUTSIDE CONTAINMENT**

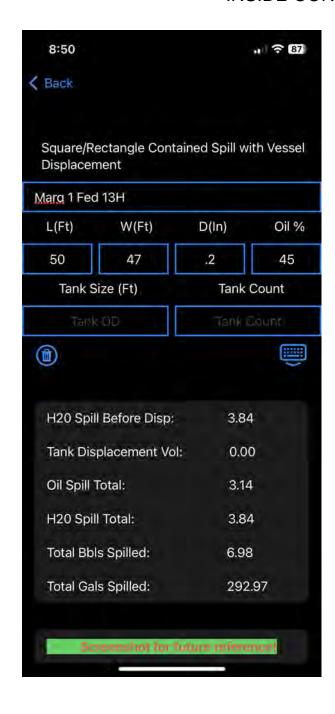


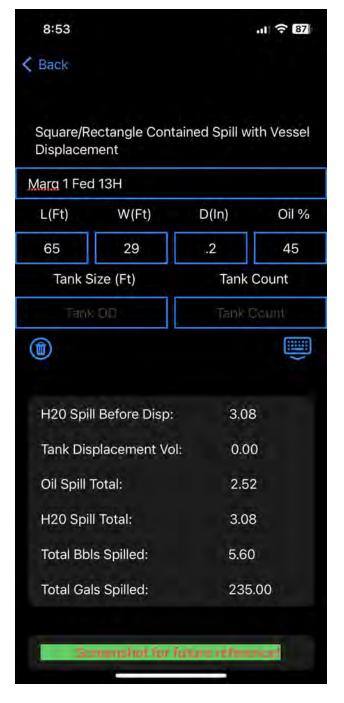






# INSIDE CONTAINMENT





From: <u>Laci Luig</u>

To: <u>NMOCD Spill Notifications</u>; <u>BLM Spill Notifications</u>

Cc: <u>Jim Hawley</u>; <u>Michael Collier</u>

**Subject:** nAPP2328269861 Marguardt 1 Federal 13H Battery sample notification

**Date:** Monday, October 30, 2023 1:21:42 PM

#### Good afternoon.

This email serves as notification for confirmation sampling at the Marquardt 1 Federal 13H Facility. Sampling is scheduled to begin as early as Thursday, November 2<sup>nd</sup>, weather and soil conditions permitting. H&R Enterprises will be onsite to collect the confirmation samples.

Incident ID: nAPP2328269861

Coordinates: 32.15218, -104.24332

# Thank you,



Laci Luig | Environmental, Health & Safety Specialist
T: 432.571.7810 | M: 432.208.3035 | laci.luig@coterra.com | www.coterra.com
Coterra Energy Inc. | 6001 Deauville Blvd., Suite 300N | Midland, TX 79706

Coterra Energy Inc. is the result of the merger of Cimarex Energy Co. and Cabot Oil & Gas Corporation on October 1, 2021.

This message may contain confidential and/or privileged information. If you are not the addressee or authorized to receive this for the addressee, you must not use, copy, disclose or take any action based on this message or any information herein. If you have received this message in error, please advise the sender immediately by reply e-mail and delete this message.

From: Wells, Shelly, EMNRD

To: <u>Laci Luig</u>; <u>BLM Spill Notifications</u>

Cc: Jim Hawley; Michael Collier; Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD

Subject: RE: [EXTERNAL] nAPP2328269861 Marguardt 1 Federal 13H Battery sample notification

**Date:** Monday, October 30, 2023 1:59:49 PM

Good afternoon Laci,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

# Shelly

Shelly Wells \* Environmental Specialist-Advanced Environmental Bureau EMNRD-Oil Conservation Division 1220 S. St. Francis Drive|Santa Fe, NM 87505 (505)469-7520|Shelly.Wells@emnrd.nm.gov http://www.emnrd.state.nm.us/OCD/

From: Laci Luig <Laci.Luig@coterra.com>
Sent: Monday, October 30, 2023 1:22 PM

**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; BLM Spill Notifications

<BLM\_NM\_CFO\_Spill@blm.gov>

**Cc:** Jim Hawley <JHawley@H-R-Enterprises.com>; Michael Collier <mcollier@H-R-Enterprises.com> **Subject:** [EXTERNAL] nAPP2328269861 Marquardt 1 Federal 13H Battery sample notification

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

Good afternoon.

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Incident ID: nAPP2328269861 Coordinates: 32.15218, -104.24332

Thank you,



Laci Luig | Environmental, Health & Safety Specialist
T: 432.571.7810 | M: 432.208.3035 | laci.luig@coterra.com | www.coterra.com
Coterra Energy Inc. | 6001 Deauville Blvd., Suite 300N | Midland, TX 79706

Coterra Energy Inc. is the result of the merger of Cimarex Energy Co. and Cabot Oil & Gas Corporation on October 1, 2021.

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# **APPENDIX IV**

# PHOTOGRAPHIC DOCUMENTATION

# PHOTOGRAPHIC DOCUMENTATION

# **INITIAL PHOTOGRAPH**



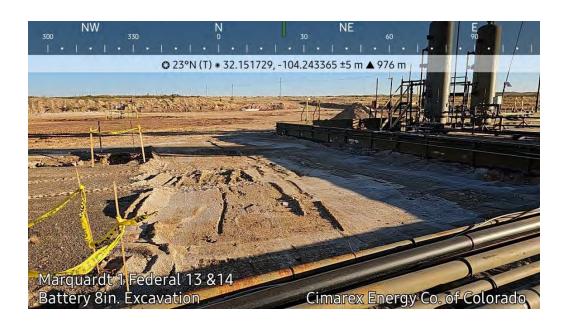
# **EXCAVATION PHOTOGRAPHS**



### PHOTOGRAPHIC DOCUMENTATION

# **EXCAVATION PHOTOGRAPHS**





### PHOTOGRAPHIC DOCUMENTATION

# **FINAL PHOTOGRAPHS**





# **APPENDIX V**

# LABORATORY REPORTS



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

November 07, 2023

MICHAEL COLLIER H & R ENTERPRISES 1010 GAMBLIN ROAD HOBBS, NM 88240

RE: MARQUARDT FEDERAL #13 - 14 BATTERY (MAR)

Enclosed are the results of analyses for samples received by the laboratory on 11/02/23 9:57.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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 <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated 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)

Celey D. Keine

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,

Celey D. Keene

Lab Director/Quality Manager



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

#### Analytical Results For:

H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received: 11/02/2023 Reported:

11/07/2023

Project Name: MARQUARDT FEDERAL #13 - 14 BATTEF

Project Number: NONE GIVEN

Project Location: CIMAREX - EDDY COUNTY, NM Sampling Date: 11/02/2023

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Shalyn Rodriguez

Sample ID: S - 1 0.5' (H236015-01)

DTEV 0021D

BTEX 8021B	mg,	/kg	Analyze	ed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/03/2023	ND	1.79	89.3	2.00	4.74	
Toluene*	<0.050	0.050	11/03/2023	ND	1.90	95.1	2.00	4.69	
Ethylbenzene*	<0.050	0.050	11/03/2023	ND	1.89	94.6	2.00	4.84	
Total Xylenes*	<0.150	0.150	11/03/2023	ND	5.76	96.0	6.00	4.17	
Total BTEX	<0.300	0.300	11/03/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	117 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/06/2023	ND	432	108	400	3.64	
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	11/04/2023	ND	213	107	200	1.41	
DRO >C10-C28*	<10.0	10.0	11/04/2023	ND	215	107	200	2.29	
EXT DRO >C28-C36	<10.0	10.0	11/04/2023	ND					
Surrogate: 1-Chlorooctane	104	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	99.8	% 49.1-14	8						

Applyand By 14/

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

#### Analytical Results For:

H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received: 11/02/2023 Reported: 11/07/2023

11/07/2023 MARQUARDT FEDERAL #13 - 14 BATTEF

Project Name: MARQUARDT
Project Number: NONE GIVEN

Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 11/02/2023

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

### Sample ID: S - 2 0.5' (H236015-02)

BTEX 8021B	mg	/kg	Analyze	ed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/03/2023	ND	1.79	89.3	2.00	4.74	
Toluene*	<0.050	0.050	11/03/2023	ND	1.90	95.1	2.00	4.69	
Ethylbenzene*	<0.050	0.050	11/03/2023	ND	1.89	94.6	2.00	4.84	
Total Xylenes*	<0.150	0.150	11/03/2023	ND	5.76	96.0	6.00	4.17	
Total BTEX	<0.300	0.300	11/03/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID 118 %		% 71.5-13	4						
Chloride, SM4500CI-B	mg	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/06/2023	ND	432	108	400	3.64	
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	11/04/2023	ND	213	107	200	1.41	
DRO >C10-C28*	<10.0	10.0	11/04/2023	ND	215	107	200	2.29	
EXT DRO >C28-C36	<10.0	10.0	11/04/2023	ND					
Surrogate: 1-Chlorooctane	103	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	99.3	% 49.1-14	8						

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



## Analytical Results For:

H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received: 11/02/2023 Reported:

11/07/2023 MARQUARDT FEDERAL #13 - 14 BATTEF

Project Name: Project Number: NONE GIVEN

Project Location: CIMAREX - EDDY COUNTY, NM Sampling Date: 11/02/2023

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Shalyn Rodriguez

## Sample ID: S - 3 0.5' (H236015-03)

BTEX 8021B	mg/	'kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/03/2023	ND	1.79	89.3	2.00	4.74	
Toluene*	<0.050	0.050	11/03/2023	ND	1.90	95.1	2.00	4.69	
Ethylbenzene*	<0.050	0.050	11/03/2023	ND	1.89	94.6	2.00	4.84	
Total Xylenes*	<0.150	0.150	11/03/2023	ND	5.76	96.0	6.00	4.17	
Total BTEX	<0.300	0.300	11/03/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	116 9	% 71.5-13	4						
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/06/2023	ND	432	108	400	3.64	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2023	ND	214	107	200	3.27	QM-07
DRO >C10-C28*	<10.0	10.0	11/04/2023	ND	216	108	200	2.45	
EXT DRO >C28-C36	<10.0	10.0	11/04/2023	ND					
Surrogate: 1-Chlorooctane	99.2	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	113 9	% 49.1-14	8						

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Celey D. Keene



## Analytical Results For:

H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received: 11/02/2023 Reported: 11/07/2023

11/02/2023 Sampling Date: 11/07/2023 Sampling Type:

Project Name: MARQUARDT FEDERAL #13 - 14 BATTEF
Project Number: NONE GIVEN

Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

11/02/2023

## Sample ID: S - 4 0.5' (H236015-04)

Analyte	Result								
•	resure	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/03/2023	ND	1.79	89.3	2.00	4.74	
Toluene*	<0.050	0.050	11/03/2023	ND	1.90	95.1	2.00	4.69	
Ethylbenzene*	<0.050	0.050	11/03/2023	ND	1.89	94.6	2.00	4.84	
Total Xylenes*	<0.150	0.150	11/03/2023	ND	5.76	96.0	6.00	4.17	
Total BTEX	<0.300	0.300	11/03/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	116 %	6 71.5-13	4						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/06/2023	ND	432	108	400	3.64	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2023	ND	214	107	200	3.27	
DRO >C10-C28*	<10.0	10.0	11/04/2023	ND	216	108	200	2.45	
EXT DRO >C28-C36	<10.0	10.0	11/04/2023	ND					
Surrogate: 1-Chlorooctane	101 %	6 48.2-13	4						
Surrogate: 1-Chlorooctadecane	111 %	6 49.1-14	8						

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Celey D. Keine



## Analytical Results For:

H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received: 11/02/2023 Reported:

11/07/2023 MARQUARDT FEDERAL #13 - 14 BATTEF

Project Number: NONE GIVEN

Project Location: CIMAREX - EDDY COUNTY, NM Sampling Date: 11/02/2023

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Shalyn Rodriguez

## Sample ID: SW - 1 0.5' (H236015-05)

Project Name:

BTEX 8021B	mg/	'kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/03/2023	ND	1.79	89.3	2.00	4.74	
Toluene*	<0.050	0.050	11/03/2023	ND	1.90	95.1	2.00	4.69	
Ethylbenzene*	<0.050	0.050	11/03/2023	ND	1.89	94.6	2.00	4.84	
Total Xylenes*	<0.150	0.150	11/03/2023	ND	5.76	96.0	6.00	4.17	
Total BTEX	<0.300	0.300	11/03/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	113 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/06/2023	ND	432	108	400	3.64	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2023	ND	214	107	200	3.27	
DRO >C10-C28*	<10.0	10.0	11/04/2023	ND	216	108	200	2.45	
EXT DRO >C28-C36	<10.0	10.0	11/04/2023	ND					
Surrogate: 1-Chlorooctane	97.3	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	108 9	% 49.1-14	8						

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Celey D. Keene



## Analytical Results For:

H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received: 11/02/2023 Reported:

11/07/2023 MARQUARDT FEDERAL #13 - 14 BATTEF

Project Name: Project Number:

NONE GIVEN

Project Location: CIMAREX - EDDY COUNTY, NM Sampling Date: 11/02/2023

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Shalyn Rodriguez

## Sample ID: SW - 2 0.5' (H236015-06)

RTFY 8021R

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/03/2023	ND	1.79	89.3	2.00	4.74	
Toluene*	<0.050	0.050	11/03/2023	ND	1.90	95.1	2.00	4.69	
Ethylbenzene*	<0.050	0.050	11/03/2023	ND	1.89	94.6	2.00	4.84	
Total Xylenes*	<0.150	0.150	11/03/2023	ND	5.76	96.0	6.00	4.17	
Total BTEX	<0.300	0.300	11/03/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	115 9	% 71.5-13	4						
Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/06/2023	ND	432	108	400	3.64	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2023	ND	214	107	200	3.27	
DRO >C10-C28*	<10.0	10.0	11/04/2023	ND	216	108	200	2.45	
EXT DRO >C28-C36	<10.0	10.0	11/04/2023	ND					
Surrogate: 1-Chlorooctane	101 5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	113 9	% 49.1-14	8						

Applyzed By: 1H /

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## Analytical Results For:

H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received: 11/02/2023 Reported: 11/07/2023

11/07/2023 MARQUARDT FEDERAL #13 - 14 BATTER

Project Name: MARQUARDT
Project Number: NONE GIVEN

Project Location: CIMAREX - EDDY COUNTY, NM

Sampling Date: 11/02/2023

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

## Sample ID: SW - 3 0.5' (H236015-07)

RTFY 8021R

B1EX 8021B	mg	/ <b>kg</b>	Anaiyze	ea By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/03/2023	ND	1.79	89.3	2.00	4.74	
Toluene*	<0.050	0.050	11/03/2023	ND	1.90	95.1	2.00	4.69	
Ethylbenzene*	<0.050	0.050	11/03/2023	ND	1.89	94.6	2.00	4.84	
Total Xylenes*	<0.150	0.150	11/03/2023	ND	5.76	96.0	6.00	4.17	
Total BTEX	<0.300	0.300	11/03/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	114	% 71.5-13	4						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	11/06/2023	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2023	ND	214	107	200	3.27	
DRO >C10-C28*	<10.0	10.0	11/04/2023	ND	216	108	200	2.45	
EXT DRO >C28-C36	<10.0	10.0	11/04/2023	ND					
Surrogate: 1-Chlorooctane	105	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	117	% 49.1-14	8						

Applyzod By: 1H /

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Celey D. Keene



## Analytical Results For:

H & R ENTERPRISES MICHAEL COLLIER 1010 GAMBLIN ROAD HOBBS NM, 88240 Fax To: NONE

Received: 11/02/2023 Reported:

11/07/2023 MARQUARDT FEDERAL #13 - 14 BATTEF

Project Name: Project Number: NONE GIVEN

Project Location: CIMAREX - EDDY COUNTY, NM Sampling Date: 11/02/2023

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Shalyn Rodriguez

## Sample ID: SW - 4 0.5' (H236015-08)

RTFY 8021R

BIEX 8021B	mg	/ kg	Anaiyze	a By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/03/2023	ND	1.79	89.3	2.00	4.74	
Toluene*	<0.050	0.050	11/03/2023	ND	1.90	95.1	2.00	4.69	
Ethylbenzene*	<0.050	0.050	11/03/2023	ND	1.89	94.6	2.00	4.84	
Total Xylenes*	<0.150	0.150	11/03/2023	ND	5.76	96.0	6.00	4.17	
Total BTEX	<0.300	0.300	11/03/2023	ND					
Surrogate: 4-Bromofluorobenzene (PID	116	% 71.5-13	4						
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/06/2023	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2023	ND	214	107	200	3.27	
DRO >C10-C28*	<10.0	10.0	11/04/2023	ND	216	108	200	2.45	
EXT DRO >C28-C36	<10.0	10.0	11/04/2023	ND					
Surrogate: 1-Chlorooctane	98.1	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	110	% 49.1-14	8						

Applyzod By: 1H /

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Celey D. Keene



## **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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Celeg D. Freene

# CARDINAL Laboratories

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: Relinquished By: HB34015 Lab I.D. Project Location: Eddy County, NM Project Name: Marquardt Federal #13-14 Battery (Mar) Sampler Name: M. Collier Project #: Phone #: Address: Project Manager: Michael Collier 101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476 Company Name: H&R Enterprises FORM-006 R 3.2 10/07/21 SW-4 0.5 SW-3 0.5 SW-2 0.5 SW-1 0.5 S-1 0.5' S-2 0.5' S-4 0.5 S-3 0.5' Observed Temp, "C Corrected Temp, "C Fax #: Project Owner: Cimarex Energy State: (G)RAB OR (C)OMP Zip: # CONTAINERS Sample Condition Cool Intact GROUNDWATER WASTEWATER SOIL MATRIX SLUDGE OTHER State: City: Fax #: Phone #: Address: Company: Cimarex Energy P.O. #: Attn: Laci Luig CHECKED BY: (Initials) ICE / COOL OTHER BILL TO 11-1-13 Zip: DATE SAMPLING REMARKS: 72 HR RUSH Verbal Result: ☐ Yes ☐ No Add'I Phone #;
All Results are emailed. Please provide Email address; TIME X BTEX TPH Chlorides ANALYSIS REQUEST ON CON C

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

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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 301821

## **QUESTIONS**

Operator:	OGRID:
CIMAREX ENERGY CO. OF COLORADO	162683
6001 Deauville Blvd, Ste 300N	Action Number:
Midland, TX 79706	301821
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

## QUESTIONS

Prerequisites				
Incident ID (n#)	nAPP2328269861			
Incident Name	NAPP2328269861 MARQUARDT 1 FEDERAL 13 & 14H CTB @ 0			
Incident Type	Produced Water Release			
Incident Status	Remediation Closure Report Received			
Incident Facility	[fAPP2202672348] MARQUARDT 1 FED 13&14H			

Location of Release Source					
Please answer all the questions in this group.					
Site Name	MARQUARDT 1 FEDERAL 13 & 14H CTB				
Date Release Discovered	10/08/2023				
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	Cause: Equipment Failure   Separator   Crude Oil   Released: 5 BBL   Recovered: 5 BBL   Lost: 0 BBL.
Produced Water Released (bbls) Details	Cause: Equipment Failure   Separator   Produced Water   Released: 11 BBL   Recovered: 8 BBL   Lost: 3 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)	The heater treater gasket failed and released a total of 12 barrels fluid inside lined containment and 4 barrels fluid onto the well pad. All fluids inside the containment were recovered along with 1 barrel fluid from the well pad. The failed gasket will be replaced and the containment is scheduled to be washed. An environmental company will be scheduled to remove impacted soils in the coming weeks. Released: 16 barrels fluid Containment = 4 barrels oil + 8 barrels water Well Pad = 1 barrel oil + 3 barrels water Recovered: 13 barrels fluid Containment = 12 barrels Well Pad = 1 barrel

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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, Page 2

Action 301821

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462	11 0, 1411 07 000
QUESTI	ONS (continued)
Operator:  CIMAREX ENERGY CO. OF COLORADO 6001 Deauville Blvd, Ste 300N Midland, TX 79706	OGRID: 162683 Action Number: 301821 Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)
QUESTIONS	
Nature and Volume of Release (continued)	
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.	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 s	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.
	ation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of ted or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of valuation in the follow-up C-141 submission.
to report and/or file certain release notifications and perform corrective actions for releate the OCD does not relieve the operator of liability should their operations have failed to a	knowledge and understand that pursuant to OCD rules and regulations all operators are required asses which may endanger public health or the environment. The acceptance of a C-141 report by adequately investigate and remediate contamination that pose a threat to groundwater, surface t does not relieve the operator of responsibility for compliance with any other federal, state, or
I hereby agree and sign off to the above statement	Name: Laci Luig Title: ES&H Specialist Email: DL_PermianEnvironmental@coterra.com

Date: 01/09/2024

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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, Page 3

Action 301821

## **QUESTIONS** (continued)

Operator:	OGRID:
CIMAREX ENERGY CO. OF COLORADO	162683
6001 Deauville Blvd, Ste 300N	Action Number:
Midland, TX 79706	301821
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

## 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)	Between 26 and 50 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between ½ and 1 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (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 500 and 1000 (ft.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Zero feet, overlying, or within area
Categorize the risk of this well / site being in a karst geology	High
A 100-year floodplain	Between 500 and 1000 (ft.)
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 pro	ovided 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 conta	amination 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 Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each	ch, in milligrams per kilograms.)
Chloride (EPA 300.0 or SM4500 CI B)	32
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	0
GRO+DRO (EPA SW-846 Method 8015M)	0
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes c which includes the anticipated timelines for beginning and completing the remediation.	completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC,
On what estimated date will the remediation commence	11/02/2023
On what date will (or did) the final sampling or liner inspection occur	11/02/2023
On what date will (or was) the remediation complete(d)	11/02/2023
What is the estimated surface area (in square feet) that will be reclaimed	0
What is the estimated volume (in cubic yards) that will be reclaimed	0
What is the estimated surface area (in square feet) that will be remediated	d 650
What is the estimated volume (in cubic yards) that will be remediated	12
These estimated dates and measurements are recognized to be the best guess or calcula	ation 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 adju	usted 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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District III

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<u>District IV</u> 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS, Page 4

Action 301821

**QUESTIONS** (continued)

Operator:	OGRID:
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6001 Deauville Blvd, Ste 300N	Action Number:
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	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

## 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 off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	LEA LAND LANDFILL [fEEM0112342028]
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and on-site 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: Laci Luig Title: ES&H Specialist

Email: DL\_PermianEnvironmental@coterra.com

Date: 01/09/2024

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.

Released to Imaging: 2/16/2024 10:23:22 AM

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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** 

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Action 301821

**QUESTIONS** (continued)

Operator:	OGRID:
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6001 Deauville Blvd, Ste 300N	Action Number:
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	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

## QUESTIONS

Deferral Requests Only	
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.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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Energy, Minerals and Natural Resources
Oil Conservation Division
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Santa Fe, NM 87505

QUESTIONS, Page 6

Action 301821

## **QUESTIONS** (continued)

Operator:	OGRID:
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	Action Type:
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## QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	301814
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/02/2023
What was the (estimated) number of samples that were to be gathered	8
What was the sampling surface area in square feet	650

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	Yes	
Have the lateral and vertical extents of contamination been fully delineated	Yes	
Was this release entirely contained within a lined containment area	No	
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes	
What was the total surface area (in square feet) remediated	650	
What was the total volume (cubic yards) remediated	12	
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes	
What was the total surface area (in square feet) reclaimed	0	
What was the total volume (in cubic yards) reclaimed	0	
Summarize any additional remediation activities not included by answers (above)	Dig and Haul remediation from spill that occurred on all pad. 6 inch scrape and hauled away.  1 day remediation	

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement

I hereby agree and sign off to the above statement

Title: ES&H Specialist
Email: DL\_PermianEnvironmental@coterra.com
Date: 01/09/2024

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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**

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Action 301821

**QUESTIONS** (continued)

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	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

## QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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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**

CONDITIONS

Action 301821

## **CONDITIONS**

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## CONDITIONS

Created By	Condition	Condition Date
bhall	Remediation Closure approved. All areas not reasonably needed for production or subsequent drilling operations will need to be reclaimed and revegetated as soon as practical. Areas reasonably needed for production or subsequent drilling operations will need to be reclaimed and revegetated as soon as they are no longer reasonably needed.	2/16/2024
bhall	The reclamation report will need to include: Executive Summary of the reclamation activities; Scaled Site Map including sampling locations; Analytical results including, but not limited to, results showing that any remaining impacts meet the reclamation standards and results to prove the backfill is non-waste containing; At least one (1) representative 5-point composite sample will need to be collected from the backfill material that will be used for the reclamation of the top four feet of the excavation. OCD reserves the right to request additional sampling if needed; pictures of the backfilled areas showing that the area is back, as nearly as practical, to the original condition or the final land use and maintain those areas to control dust and minimize erosion to the extent practical; pictures of the top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater; and a revegetation plan.	2/16/2024
bhall	A revegetation report will not be accepted until the release area, including areas reasonably needed for production or drilling activities, are complete. Areas not reasonably needed for production or drilling activities will still need to be reclaimed and revegetated as early as practicable. All revegetation activities will need to be documented and included in the revegetation report.	2/16/2024
bhall	The revegetation report will need to include: • Executive Summary of the revegetation activities including: Seed mix; Method of seeding; Dates of when the release area was reseeded; Information pertinent to inspections; Information about any amendments added to the soil; Information on how the vegetative cover established meets the life-form ratio of plus or minus fifty percent of pre-disturbance levels and a total percent plant cover of at least seventy percent of pre-disturbance levels, excluding noxious weeds per 19.15.29.13 D.(3) NMAC; and any additional information. • Scaled Site Map including area that was revegetated in square feet; • Pictures of the revegetated areas during reseeding activities, inspections, and final pictures when revegetation is achieved.	2/16/2024
bhall	Per 19.15.29.13 E. NMAC, if a reclamation and revegetation report has been submitted to the surface owner, it may be used if the requirements of the surface owner provide equal or better protection of freshwater, human health, and the environment. A copy of the approval of the reclamation and revegetation report from the surface owner and a copy of the approved reclamation and revegetation report will need to be submitted to the OCD via the Permitting website.	2/16/2024