



MCollier@H-R_Enterprises.com 575-909-0326

Soil Assessment and Closure Report

Palmillo State Com #004
Incident# nRM2009253961
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 25, 2024

Mr. Mike Bratcher
New Mexico Oil Conservation District
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Subject: **Soil Assessment and Closure Report**
Palmillo State Com #004
Eddy County, NM

Dear Mr. Bratcher,

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

Site Information

The Palmillo State Com #004 is located approximately 24 miles Southeast of Artesia, New Mexico. The legal location for this release is Unit Letter L, Section 32, Township 18 South and Range 29 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.702344 North and -104.103283 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 Tonuco loamy fine sand, 0 to 3 percent slopes. The referenced soil data is attached in [Appendix II](#). Drainage courses in this area are typically dry. This project site is not located in a high Karst potential area (Karst Map, [Appendix I](#)).

Groundwater and Site Characterization

The New Mexico Office of the State Engineer web site indicates that the nearest reported depth to groundwater is 180-feet below ground surface (BGS). See [Appendix II](#) for the referenced groundwater data.

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	180 Feet/BGS
---	---------------------

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Within 300 feet of any continuously flowing watercourse or any other significant watercourse
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Within 200 feet of any lakebed, sinkhole, or a playa lake
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Within 300 feet from an occupied permanent residence, school, hospital, institution, or church
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Within 1000 feet of any freshwater well or spring
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> 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
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Within 300 feet of a wetland
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Within the area overlying a subsurface mine
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Within an unstable area
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Within a 100-year floodplain

Due to groundwater data being outside the recommended 0.5-mile radius of the release, a groundwater determination bore was drilled to a depth of 105-foot BGS. No groundwater was present the day of drilling nor 72-hours after drilling occurred. As groundwater is greater than 100-feet BGS the closure criteria for this site are as follows:

Table I			
Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
>100 feet	Chloride **	EPA 300.0 or SM4500 CIB	20,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

Incident Description

On March 26, 2020, approximately 41 barrels (bbls) of produced water had been released into the unlined containment. Only 5 bbls of water was recovered. A hydrovac truck excavated the contaminated soil from the containment as well.

Soil Assessment Activities

H&R mobilized personnel to begin soil assessment sampling activities of the release area. Grab samples were obtained by way of air rotary drill and transported to Cardinal Laboratory for analysis. The results of that analysis are presented in the following data table. Initial soil assessment sampling locations are illustrated on Soil Assessment Map, [Appendix I](#). Eastern delineation of this spill incident can be found in Appendix VI, as that references an additional NMOCD spill incident (nAPP2422766341). Photographic documentation is attached in [Appendix IV](#). A complete laboratory report can be found in [Appendix V](#).

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	CI mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	1000 mg/kg		2500 mg/kg	2500 mg/kg	mg/kg
BH-1	11/11/2024	0-1'	ND	ND	ND	ND	ND	0	16
		2'	ND	ND	ND	ND	ND	0	16
		3'	ND	ND	ND	ND	ND	0	64
		4'	ND	ND	ND	ND	ND	0	64
BH-2	11/11/2024	0-1'	ND	ND	ND	ND	ND	0	48
		2'	ND	ND	ND	ND	ND	0	64
		3'	ND	ND	ND	ND	ND	0	64
		4'	ND	ND	ND	ND	ND	0	64
BH-3	11/11/2024	0-1'	ND	ND	ND	ND	ND	0	48
		2'	ND	ND	ND	ND	ND	0	16
		3'	ND	ND	ND	ND	ND	0	16
		4'	ND	ND	ND	ND	ND	0	ND
H-1	11/11/2024	0-1'	ND	ND	ND	ND	ND	0	ND
H-2	11/11/2024	0-1'	ND	ND	ND	ND	ND	0	ND
H-3	11/11/2024	0-1'	ND	ND	ND	ND	ND	0	ND
ND = Analyte Not Detected BH = Vertical Bore Hole Sample H = Horizontal Sample									

Based on the results of our soil assessment, no remediation or further actions are necessary.

Closure

Based on the soil assessment sample results completed for this project, on behalf of Cimarex Energy Co. we request that no further actions be required, and that closure of this incident till time of reclamation 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
Environmental Project Manager

Attachments:

Appendix I Site Maps
Appendix II Soil Survey, Groundwater Data, FEMA Flood Zone, NMOSE Well Record
Appendix III NMOCD Correspondence
Appendix IV Photographic Documentation
Appendix V Laboratory Reports

APPENDIX I

SITE MAPS

KARST POTENTIAL MAP

TOPOGRAPHIC MAP

LOCATOR MAP

Palmillo State Com #004

Cimarex Energy Co. of Colorado
Incident# nRM2009253961
Eddy County, NM
Soil Assessment Map

Legend

- Horizontal Sample Point
- Vertical Bore Hole Sample Point

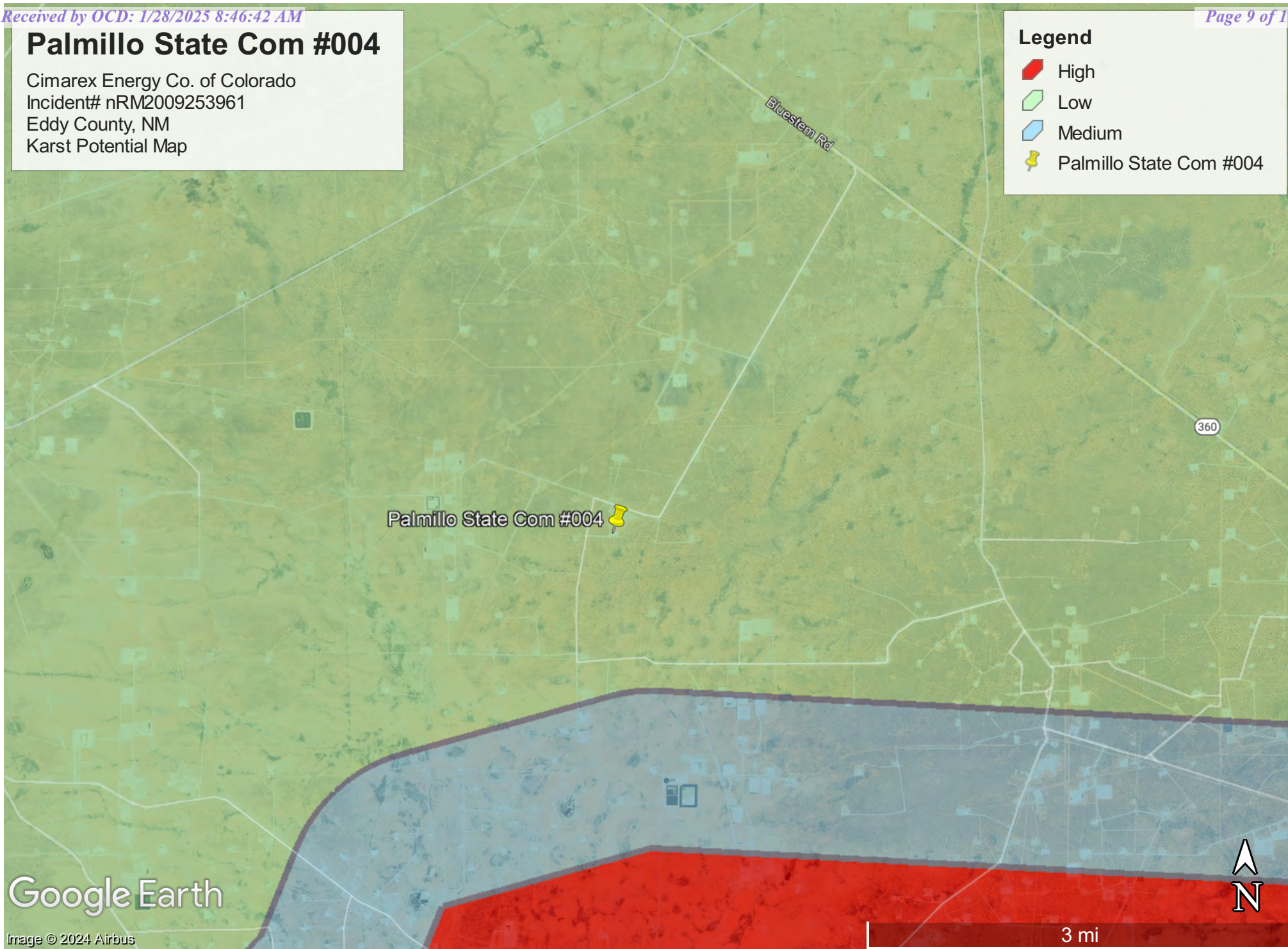


Palmillo State Com #004


Cimarex Energy Co. of Colorado
Incident# nRM2009253961
Eddy County, NM
Karst Potential Map

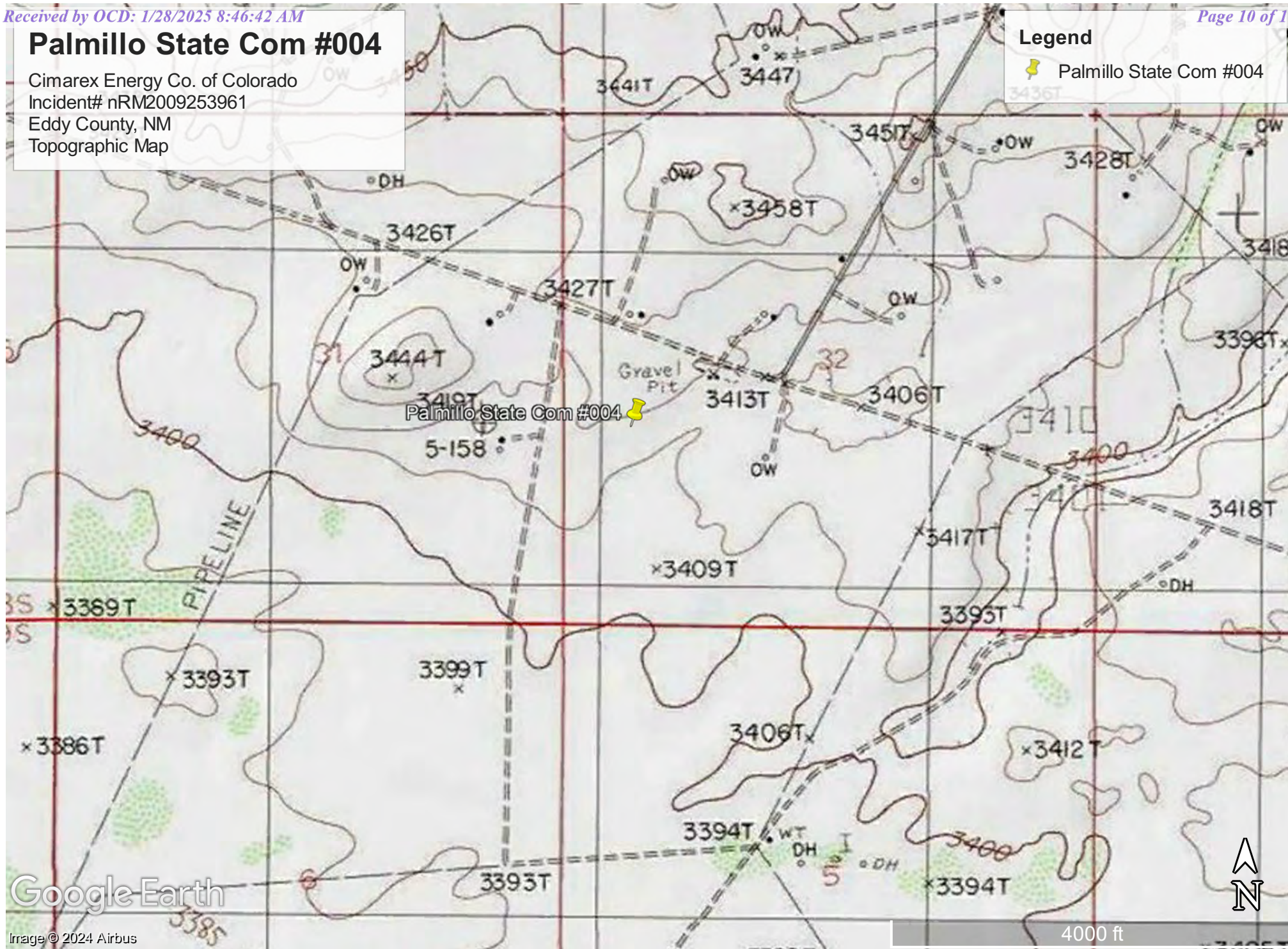
Legend

- High
- Low
- Medium
- Palmillo State Com #004



Cimarex Energy Co. of Colorado
Incident# nRM2009253961
Eddy County, NM
Topographic Map


 Palmillo State Com #004

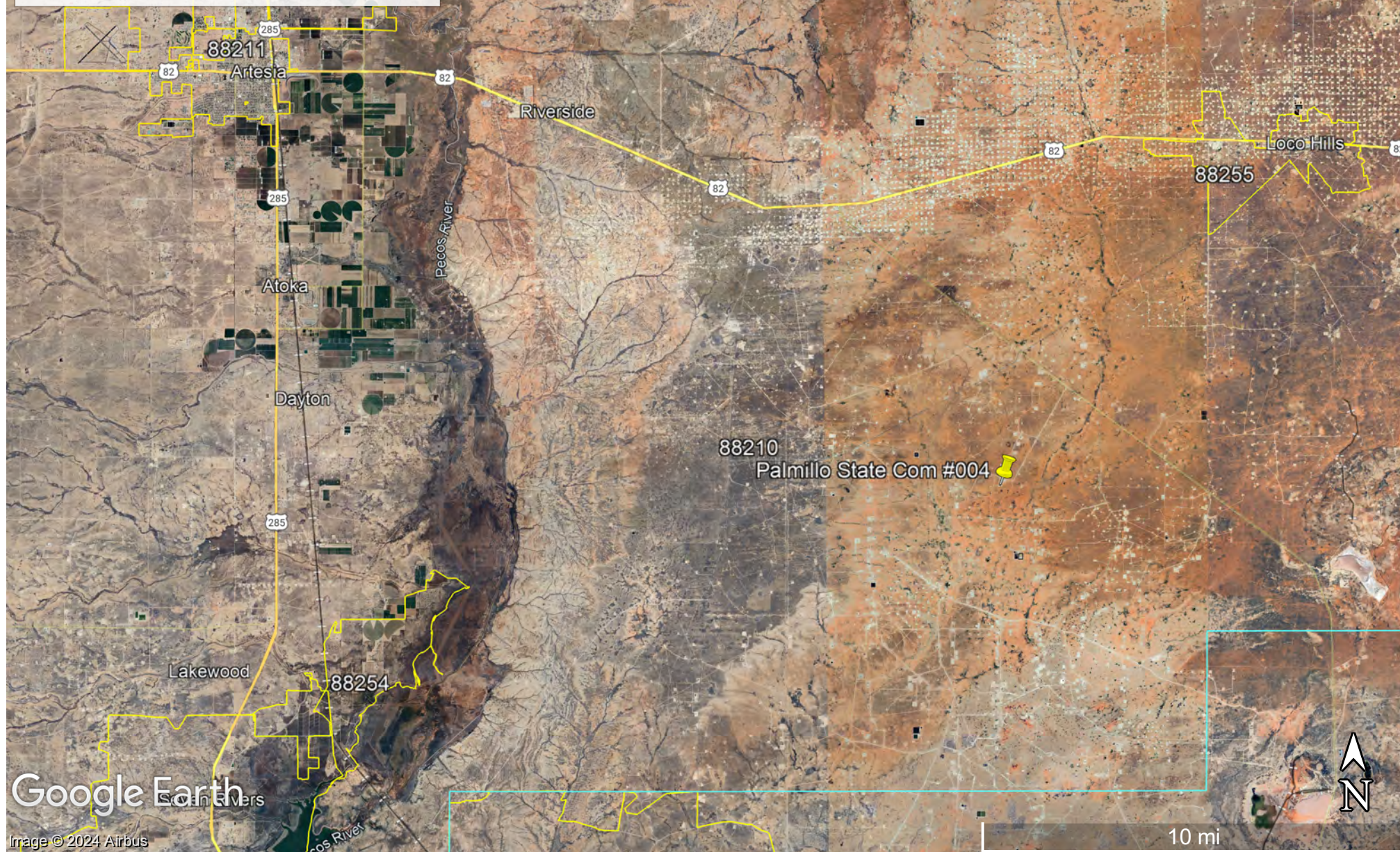


Palmillo State Com #004

Cimarex Energy Co. of Colorado
Incident# nRM2009253961
Eddy County, NM
Locator Map

Legend

 Palmillo State Com #004



APPENDIX II

GROUNDWATER DATA

SOIL SURVEY

FEMA FLOOD ZONE

**NMOSE WELL LOG &
PLUGGING RECORD**

Water Column/Average Depth to Water

(AOLW##### 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 closed)	(quarters are smallest to largest)	(NAD83 UTM in meters)							
POD Number	Code	Sub basin	County	Q64	Q16	Q4	Sec	Tws	Range	X
CP 01618 POD1		CP	ED	SW	SE	NE	29	18S	29E	585119.6 3620
CP 01858 POD1		CP	ED	SE	NW	SE	01	19S	28E	581872.2 3617

Record Count: 2

Basin/County Search:

County: ED

UTM Filters (in meters):

Easting: 584039.75

Northing: 3618680.43

Radius: 03000

* 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.

11/22/24 9:33 AM MST Water Column/Average Depth to Water

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PLUGGING RECORD



NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: CP-2023

Well owner: Coterra Energy Co. (Agent James Hawley H&R)

Phone No.: _____

Mailing address: P.O. Box 3641

City: Hobbs State: NM Zip code: 88241

II. WELL PLUGGING INFORMATION:

- 1) Name of well drilling company that plugged well: H&R Enterprises, LLC.
- 2) New Mexico Well Driller License No.: WD-1862 Expiration Date: 6-16-25
- 3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s):
Nathan Smelcer
- 4) Date well plugging began: 11-15-24 Date well plugging concluded: 11-15-24
- 5) GPS Well Location: Latitude: 32 deg, 42 min, 09.6 sec
Longitude: 104 deg, 06 min, 12.2 sec, WGS 84
- 6) Depth of well confirmed at initiation of plugging as: 105' ft below ground level (bgl),
by the following manner: well sounder
- 7) Static water level measured at initiation of plugging: N/A ft bgl
- 8) Date well plugging plan of operations was approved by the State Engineer: 10-18-24
- 9) Were all plugging activities consistent with an approved plugging plan? yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

- For each interval plugged, describe within the following columns:

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

I, James Hawley, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Signature of Well Driller

Date _____



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

PALMILLO
11/18/24

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) Pod 1		WELL TAG ID NO.		OSE FILE NO(S) CP-2023			
	WELL OWNER NAME(S) Coterra Energy Co. (Agent James Hawley H&R Enterprises, LLC)					PHONE (OPTIONAL)		
	WELL OWNER MAILING ADDRESS P.O. Box 3641					CITY Hobbs	STATE NM	
						ZIP 88241		
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 42	SECONDS 09.6	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND		
	LONGITUDE 104	06	12.2	W	* DATUM REQUIRED: WGS 84			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE								
2. DRILLING & CASING INFORMATION	LICENSE NO. WD-1862		NAME OF LICENSED DRILLER James Hawley			NAME OF WELL DRILLING COMPANY H&R Enterprises, LLC		
	DRILLING STARTED 11-11-24	DRILLING ENDED 11-11-24	DEPTH OF COMPLETED WELL (FT) 105'		BORE HOLE DEPTH (FT) 105'	DEPTH WATER FIRST ENCOUNTERED (FT) N/A		
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN *add Centralizer info below <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A	DATE STATIC MEASURED 11-15-24	
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY:						CHECK HERE IF PITLESS ADAPTER IS INSTALLED <input type="checkbox"/>	
	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	0' 105'		6'	No casing left in hole				
3. ANNULAR MATERIAL	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE- RANGE BY INTERVAL *(if using Centralizers for Artesian wells- indicate the spacing below)	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
				N/A				

FOR OSE INTERNAL USE

FILE NO.	POD NO.	WR-20 WELL RECORD & LOG (Version 09/22/2022)	
LOCATION	WELL TAG ID NO.	TRN NO.	PAGE 1 OF 2

	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)								
	FROM	TO												
4. HYDROGEOLOGIC LOG OF WELL	0'	5'	5'	Sandy Topsoil	Y ✓ N									
	5'	26'	21'	Sandy Caliche	Y ✓ N									
	26'	105'	79'	Sand & Gravel	Y ✓ N									
					Y N									
					Y N									
					Y N									
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					Y N									
	METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input checked="" type="checkbox"/> OTHER - SPECIFY: Dry Hole					TOTAL ESTIMATED WELL YIELD (gpm): 0.00								
5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.												
	MISCELLANEOUS INFORMATION: Well was gauged for water on 11-15-24, well bore was dry, temporary well casing was removed, bore hole was backfilled to 10' BGS with drill cuttings, then hydrated bentonite chips were poured from 10' BGS to surface.													
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Nathan Smelcer													
6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING: <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="text-align: center;"> SIGNATURE OF DRILLER / PRINT SIGNEE NAME </div> <div style="text-align: center;"> James Hawley DATE </div> </div>													
FOR OSE INTERNAL USE <table style="width:100%; border: none;"> <tr> <td style="border: none; width: 40%;">FILE NO.</td> <td style="border: none; width: 20%;">POD NO.</td> <td style="border: none; width: 20%;">WR-20 WELL RECORD & LOG (Version 09/22/2022)</td> <td style="border: none; width: 20%;">TRN NO.</td> </tr> <tr> <td style="border: none;">LOCATION</td> <td style="border: none;">WELL TAG ID NO.</td> <td colspan="2" style="border: none;">PAGE 2 OF 2</td> </tr> </table>							FILE NO.	POD NO.	WR-20 WELL RECORD & LOG (Version 09/22/2022)	TRN NO.	LOCATION	WELL TAG ID NO.	PAGE 2 OF 2	
FILE NO.	POD NO.	WR-20 WELL RECORD & LOG (Version 09/22/2022)	TRN NO.											
LOCATION	WELL TAG ID NO.	PAGE 2 OF 2												

Map Unit Description: Tonuco loamy fine sand, 0 to 3 percent slopes---Eddy Area, New Mexico

Eddy Area, New Mexico

TF—Tonuco loamy fine sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w61

Elevation: 3,000 to 4,100 feet

Mean annual precipitation: 10 to 14 inches

Mean annual air temperature: 60 to 64 degrees F

Frost-free period: 200 to 217 days

Farmland classification: Not prime farmland

Map Unit Composition

Tonuco and similar soils: 98 percent

Minor components: 2 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tonuco

Setting

Landform: Plains, alluvial fans

Landform position (three-dimensional): Rise

Down-slope shape: Convex, linear

Across-slope shape: Linear

Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 5 inches: loamy fine sand

H2 - 5 to 15 inches: loamy fine sand

H3 - 15 to 19 inches: indurated

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 6 to 20 inches to petrocalcic

Drainage class: Excessively drained

Runoff class: Very 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

Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)

Sodium adsorption ratio, maximum: 1.0

Available water supply, 0 to 60 inches: Very low (about 1.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: D

Ecological site: R070BD004NM - Sandy

Hydric soil rating: No

Map Unit Description: Tonuco loamy fine sand, 0 to 3 percent slopes---Eddy Area, New Mexico

Minor Components

Tonuco

Percent of map unit: 1 percent

Ecological site: R070BD004NM - Sandy

Hydric soil rating: No

Dune land

Percent of map unit: 1 percent

Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico

Survey Area Data: Version 20, Sep 3, 2024

National Flood Hazard Layer FIRMMette



104°6'31"W 32°42'25"N



1:6,000

104°5'54"W 32°41'54"N

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 11/25/2024 at 10:00 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

C-141

**NMOCD
CORRESPONDENCE**

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	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Cimarex Energy Co.	OGRID: 215099
Contact Name: Laci Luig	Contact Telephone: 432.571.7800
Contact email: lluig@cimarex.com	Incident # (assigned by OCD)
Contact mailing address: 600 N Marienfeld Street, Ste. 600 Midland, TX 79701	

Location of Release Source

Latitude 32.70265 _____ Longitude -104.10348 _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Palmillo State 4H	Site Type: Battery
Date Release Discovered: 3/26/2020	API# (if applicable) 30-015-31497

Unit Letter	Section	Township	Range	County
L	32	18S	29E	Eddy

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 41 bbls	Volume Recovered (bbls) 5 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Hole in tank caused spill of produced water into unlined containment. A vacuum truck removed remaining fluid from tank and 5 bbls produced water in containment. A hydrovac truck picked up contaminated soil inside berm area and disposed at R-360. The tank will be cleaned and checked for repairs. We will delineate impacted soil area, determine clean-up and request approval to remediate.

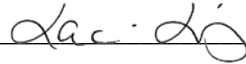
State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? The amount of the release is over 25 barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? By: Gloria Garza To: Mike Bratcher, Robert Hamlet, Victoria Venegas and Jim Griswold	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
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.	
Printed Name: Laci Luig _____	Title: Engineer Tech _____
Signature:  _____	Date: 4/1/2020 _____
email: lluigcimarex.com _____	Telephone: (432) 571-7810 _____
<u>OCD Only</u>	
Received by: _____	Date: _____

From: [Velez, Nelson, EMNRD](#)
To: [Laci Luig](#)
Subject: Re: [EXTERNAL] Palmillo State 4 Sample Variance Request
Date: Friday, November 22, 2024 4:13:47 PM
Attachments: [image001.jpg](#)
[Outlook-4n1cob0h.png](#)
[0.jpg](#)

WARNING: This email originated from outside of Coterra Energy. Do not click links or open attachments unless you recognize the sender, are expecting the content and know it is safe.



Good afternoon Laci,

Thanks for the correspondence. After careful review of the information provided, OCD approves the variance requested.

In the future, please provide sampling notification for delineation sampling to ensure that they may possibly be used as final samples toward closure. Adherence to Part 29 as written, is vital to achieving the end results that everyone desires. This approval is for these two (2) incidents and should not be viewed as precedent for any future incidents. All incidents will be reviewed on a case-by-case basis and follow the rule as it was intended.

Lastly, both incidents remediation due dates have expired. Please submit your final remediation closure report as soon as possible.

OCD will use its discretion to determine if additional enforcement action is warranted. Cooperation from Cimarex will be considered when determining any enforcement actions, which may include civil penalties.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

The OCD requires a copy of all correspondence relative to remedial activities be included in all proposals and/or final closure reports. Correspondence required to be included in reports may include, but not limited to, notifications for liner inspections, sample events, spill/release/fire, and request for time extensions or variances.

Regards,

Nelson Velez • Environmental Specialist - Adv
Environmental Bureau | EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87410
(505) 469-6146 | nelson.velez@emnrd.nm.gov
<http://www.emnrd.nm.gov/oecd>



From: Laci Luig <Laci.Luig@coterra.com>
Sent: Friday, November 22, 2024 1:19 PM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Subject: [EXTERNAL] Palmillo State 4 Sample Variance Request

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

Mr. Velez,

Thank you for taking my call this morning. As I mentioned, Cimarex has 2 open incidents at the Palmillo State 4, located at 32.70265, -104.10348, in Eddy County, NM.

Incident Numbers:

nRM2009253961 – release date 3/26/2020

nAPP2422766341 – release date 8/14/2024

On November 11, 2024, H&R Enterprises arrived on location to drill delineation sample points inside the 2 earthen berms from surface to 4' bgs, or until field screens were below 600 mg/kg chlorides. The sample map along with the lab data table for each incident is attached.

While on location, a ground water determination bore was drilled to 105' below surface then bailed after 72 hours to prove no shallow groundwater. The closest USGS record to groundwater is 2.32 miles to the Southeast with a DTW record of 205' bgs. Additionally, the Palmillo State 4 is located in a low karst area and has no potential impact to health and safety of humans, groundwater or the environment. Based on the characterization of the site, and analytical data of the delineation samples, Cimarex will follow Table I Closure Criteria for >100' DTW.

As it was not anticipated for the delineation samples collected on November 11th to have been used as the final samples, Cimarex is respectfully requesting a variance to spill rule [19.15.29.12](#) subpart D (1)(a) that requires a 2 business day notice to conducting final sampling.

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.

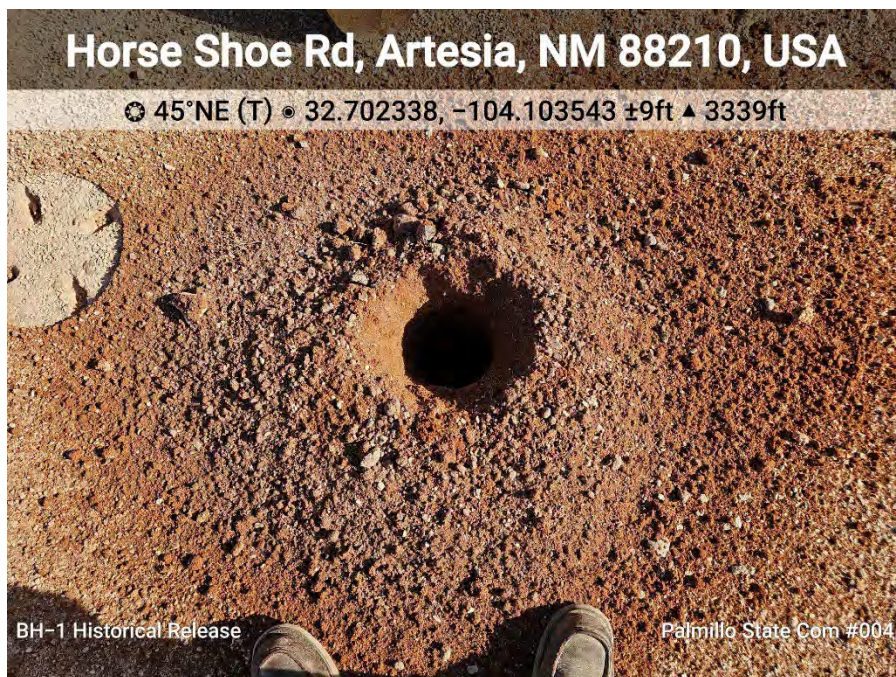
This message may contain confidential and/or privileged information. If you are not the addressee or authorized to receive this for the addressee, you must not use, copy, disclose or take any action based on this message or any information herein. If you have received this message in error, please advise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

APPENDIX IV

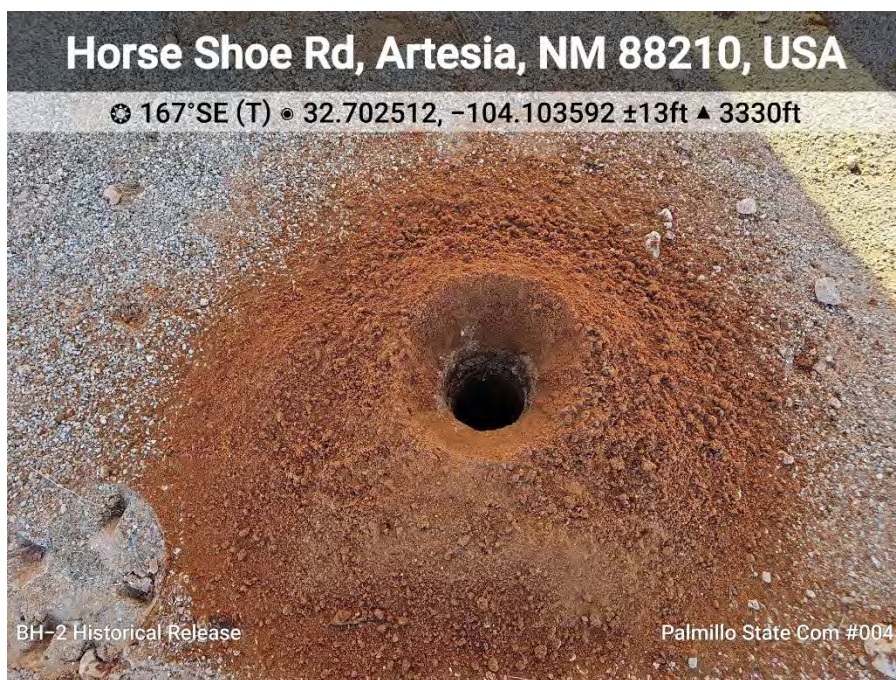
PHOTOGRAPHIC DOCUMENTATION

PHOTOGRAPHIC DOCUMENTATION

BORE HOLE PHOTOGRAPHS

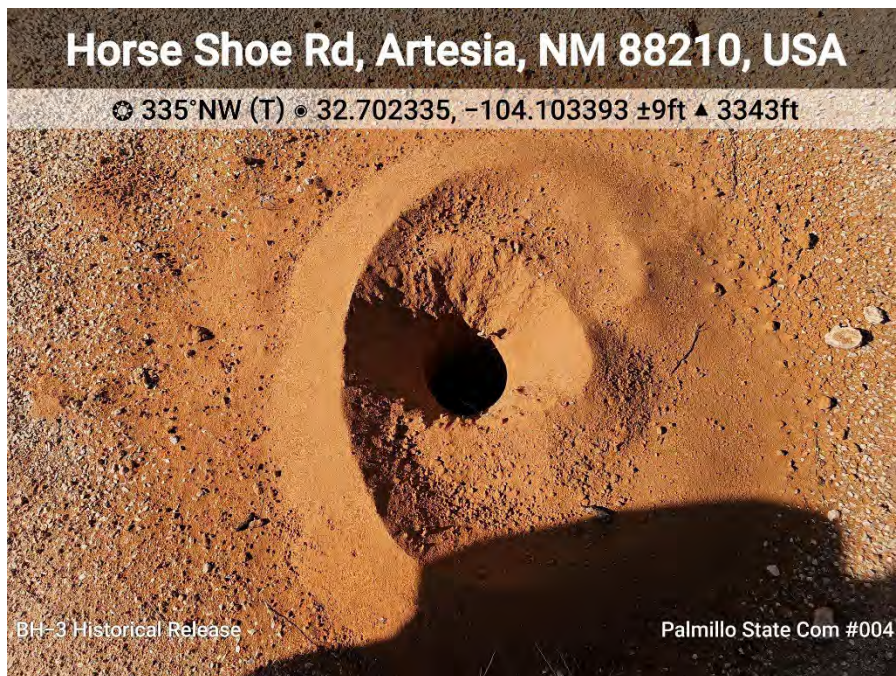


BH-1



BH-2

PHOTOGRAPHIC DOCUMENTATION



BH-3

APPENDIX V

LABORATORY REPORT



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

November 15, 2024

MICHAEL COLLIER

H & R ENTERPRISES

1010 GAMBLIN ROAD

HOBBS, NM 88240

RE: PALMILLO STATE COM #004

Enclosed are the results of analyses for samples received by the laboratory on 11/12/24 12:02.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. 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.

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, flowing style.

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: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL OLD)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 1 0-01' (H246884-01)

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	11/13/2024	ND	1.94	97.2	2.00	4.57	
Toluene*	<0.050	0.050	11/13/2024	ND	2.07	103	2.00	3.30	
Ethylbenzene*	<0.050	0.050	11/13/2024	ND	2.25	112	2.00	3.48	
Total Xylenes*	<0.150	0.150	11/13/2024	ND	6.71	112	6.00	3.90	
Total BTEX	<0.300	0.300	11/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	11/13/2024	ND	416	104	400	7.41	

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	11/12/2024	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	11/12/2024	ND	184	91.9	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/12/2024	ND					

Surrogate: 1-Chlorooctane 95.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 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:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL OLD)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 1 2' (H246884-02)

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	11/14/2024	ND	2.06	103	2.00	3.63	QM-07
Toluene*	<0.050	0.050	11/14/2024	ND	2.12	106	2.00	3.71	QM-07
Ethylbenzene*	<0.050	0.050	11/14/2024	ND	2.11	106	2.00	3.74	QM-07
Total Xylenes*	<0.150	0.150	11/14/2024	ND	6.28	105	6.00	3.96	QM-07
Total BTX	<0.300	0.300	11/14/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	16.0	16.0	11/13/2024	ND	416	104	400	7.41	

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	11/12/2024	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	11/12/2024	ND	184	91.9	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/12/2024	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 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:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL OLD)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 1 3' (H246884-03)

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	11/14/2024	ND	2.06	103	2.00	3.63		
Toluene*	<0.050	0.050	11/14/2024	ND	2.12	106	2.00	3.71		
Ethylbenzene*	<0.050	0.050	11/14/2024	ND	2.11	106	2.00	3.74		
Total Xylenes*	<0.150	0.150	11/14/2024	ND	6.28	105	6.00	3.96		
Total BTX	<0.300	0.300	11/14/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	64.0	16.0	11/13/2024	ND	416	104	400	7.41		

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	11/12/2024	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	11/12/2024	ND	184	91.9	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/12/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL OLD)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 1 4' (H246884-04)

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	11/14/2024	ND	2.06	103	2.00	3.63		
Toluene*	<0.050	0.050	11/14/2024	ND	2.12	106	2.00	3.71		
Ethylbenzene*	<0.050	0.050	11/14/2024	ND	2.11	106	2.00	3.74		
Total Xylenes*	<0.150	0.150	11/14/2024	ND	6.28	105	6.00	3.96		
Total BTEX	<0.300	0.300	11/14/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	64.0	16.0	11/13/2024	ND	416	104	400	7.41		

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	11/13/2024	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	11/13/2024	ND	184	91.9	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/13/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 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:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL OLD)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 2 0-01' (H246884-05)

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	11/14/2024	ND	2.06	103	2.00	3.63	
Toluene*	<0.050	0.050	11/14/2024	ND	2.12	106	2.00	3.71	
Ethylbenzene*	<0.050	0.050	11/14/2024	ND	2.11	106	2.00	3.74	
Total Xylenes*	<0.150	0.150	11/14/2024	ND	6.28	105	6.00	3.96	
Total BTEx	<0.300	0.300	11/14/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	48.0	16.0	11/13/2024	ND	416	104	400	7.41	

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	11/13/2024	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	11/13/2024	ND	184	91.9	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/13/2024	ND					

Surrogate: 1-Chlorooctane 99.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 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:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL OLD)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 2 2' (H246884-06)

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	11/14/2024	ND	2.06	103	2.00	3.63		
Toluene*	<0.050	0.050	11/14/2024	ND	2.12	106	2.00	3.71		
Ethylbenzene*	<0.050	0.050	11/14/2024	ND	2.11	106	2.00	3.74		
Total Xylenes*	<0.150	0.150	11/14/2024	ND	6.28	105	6.00	3.96		
Total BTEx	<0.300	0.300	11/14/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	64.0	16.0	11/13/2024	ND	416	104	400	7.41		

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	11/13/2024	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	11/13/2024	ND	184	91.9	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/13/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 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:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL OLD)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 2 3' (H246884-07)

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	11/14/2024	ND	2.06	103	2.00	3.63	
Toluene*	<0.050	0.050	11/14/2024	ND	2.12	106	2.00	3.71	
Ethylbenzene*	<0.050	0.050	11/14/2024	ND	2.11	106	2.00	3.74	
Total Xylenes*	<0.150	0.150	11/14/2024	ND	6.28	105	6.00	3.96	
Total BTEx	<0.300	0.300	11/14/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	64.0	16.0	11/13/2024	ND	416	104	400	7.41		

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	11/13/2024	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	11/13/2024	ND	184	91.9	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/13/2024	ND					

Surrogate: 1-Chlorooctane 94.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 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:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL OLD)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 2 4' (H246884-08)

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	11/14/2024	ND	2.06	103	2.00	3.63		
Toluene*	<0.050	0.050	11/14/2024	ND	2.12	106	2.00	3.71		
Ethylbenzene*	<0.050	0.050	11/14/2024	ND	2.11	106	2.00	3.74		
Total Xylenes*	<0.150	0.150	11/14/2024	ND	6.28	105	6.00	3.96		
Total BTX	<0.300	0.300	11/14/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	64.0	16.0	11/13/2024	ND	416	104	400	7.41		

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	11/13/2024	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	11/13/2024	ND	184	91.9	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/13/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL OLD)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 3 0-01' (H246884-09)

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	11/14/2024	ND	2.06	103	2.00	3.63	
Toluene*	<0.050	0.050	11/14/2024	ND	2.12	106	2.00	3.71	
Ethylbenzene*	<0.050	0.050	11/14/2024	ND	2.11	106	2.00	3.74	
Total Xylenes*	<0.150	0.150	11/14/2024	ND	6.28	105	6.00	3.96	
Total BTEX	<0.300	0.300	11/14/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	48.0	16.0	11/13/2024	ND	416	104	400	7.41		

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	11/13/2024	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	11/13/2024	ND	184	91.9	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/13/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL OLD)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 3 2' (H246884-10)

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	11/14/2024	ND	2.06	103	2.00	3.63		
Toluene*	<0.050	0.050	11/14/2024	ND	2.12	106	2.00	3.71		
Ethylbenzene*	<0.050	0.050	11/14/2024	ND	2.11	106	2.00	3.74		
Total Xylenes*	<0.150	0.150	11/14/2024	ND	6.28	105	6.00	3.96		
Total BTEx	<0.300	0.300	11/14/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

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	11/13/2024	ND	416	104	400	3.77		

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	11/13/2024	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	11/13/2024	ND	184	91.9	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/13/2024	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 123 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL OLD)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 3 3' (H246884-11)

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	11/14/2024	ND	2.06	103	2.00	3.63		
Toluene*	<0.050	0.050	11/14/2024	ND	2.12	106	2.00	3.71		
Ethylbenzene*	<0.050	0.050	11/14/2024	ND	2.11	106	2.00	3.74		
Total Xylenes*	<0.150	0.150	11/14/2024	ND	6.28	105	6.00	3.96		
Total BTEx	<0.300	0.300	11/14/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

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	11/13/2024	ND	416	104	400	3.77		

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	11/13/2024	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	11/13/2024	ND	184	91.9	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/13/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL OLD)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 3 4' (H246884-12)

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	11/14/2024	ND	2.06	103	2.00	3.63	
Toluene*	<0.050	0.050	11/14/2024	ND	2.12	106	2.00	3.71	
Ethylbenzene*	<0.050	0.050	11/14/2024	ND	2.11	106	2.00	3.74	
Total Xylenes*	<0.150	0.150	11/14/2024	ND	6.28	105	6.00	3.96	
Total BTX	<0.300	0.300	11/14/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

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	11/13/2024	ND	416	104	400	3.77		

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	11/13/2024	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	11/13/2024	ND	184	91.9	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/13/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 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:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL OLD)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 1 0-1' (H246884-13)

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	11/14/2024	ND	2.06	103	2.00	3.63		
Toluene*	<0.050	0.050	11/14/2024	ND	2.12	106	2.00	3.71		
Ethylbenzene*	<0.050	0.050	11/14/2024	ND	2.11	106	2.00	3.74		
Total Xylenes*	<0.150	0.150	11/14/2024	ND	6.28	105	6.00	3.96		
Total BTX	<0.300	0.300	11/14/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

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	11/13/2024	ND	416	104	400	3.77		

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	11/13/2024	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	11/13/2024	ND	184	91.9	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/13/2024	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL OLD)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 2 0-1' (H246884-14)

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	11/14/2024	ND	2.06	103	2.00	3.63		
Toluene*	<0.050	0.050	11/14/2024	ND	2.12	106	2.00	3.71		
Ethylbenzene*	<0.050	0.050	11/14/2024	ND	2.11	106	2.00	3.74		
Total Xylenes*	<0.150	0.150	11/14/2024	ND	6.28	105	6.00	3.96		
Total BTX	<0.300	0.300	11/14/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

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	11/13/2024	ND	416	104	400	3.77		

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	11/13/2024	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	11/13/2024	ND	184	91.9	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/13/2024	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 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:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL OLD)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 3 0-1' (H246884-15)

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	11/14/2024	ND	2.06	103	2.00	3.63		
Toluene*	<0.050	0.050	11/14/2024	ND	2.12	106	2.00	3.71		
Ethylbenzene*	<0.050	0.050	11/14/2024	ND	2.11	106	2.00	3.74		
Total Xylenes*	<0.150	0.150	11/14/2024	ND	6.28	105	6.00	3.96		
Total BTEx	<0.300	0.300	11/14/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

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	11/13/2024	ND	416	104	400	3.77		

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	11/13/2024	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	11/13/2024	ND	184	91.9	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/13/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager

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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

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: H&R Enterprises
Project Manager: Michael Collier

Address:

City:

State: NM Zip:

Phone #:

Fax #:

Project #:

Project Name: Palmilla State Com #004

Project Location: Eddy County, NM

Sample Name: N. Smeicer

Lab I.D.:

FOR LAB USE ONLY

Project Owner: Colera

City:

State: Zip:

Phone #:

Fax #:

Company: Colera

Attn: Laci Luig

Address:

City:

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Fax #:

Company:

Attn:

Address:



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

[illegible]

APPENDIX VI

2024 CLOSURE REPORT (nAPP2422766341)



MCollier@H-R_Enterprises.com 575-909-0326

Soil Assessment and Closure Report

Palmillo State Com #004
Incident# nAPP2422766341
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 25, 2024

Mr. Mike Bratcher
New Mexico Oil Conservation District
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Subject: **Soil Assessment and Closure Report**
Palmillo State Com #004
Eddy County, NM

Dear Mr. Bratcher,

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

Site Information

The Palmillo State Com #004 is located approximately 24 miles Southeast of Artesia, New Mexico. The legal location for this release is Unit Letter L, Section 32, Township 18 South and Range 29 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.702344 North and -104.103283 West. Site plans are presented in [Appendix I](#).

According to the soil survey provided by the United States Department of Agriculture NaturalResources Conservation Service, the soil in this area is made up of Tonuco loamy fine sand, 0 to 3 percent slopes. The referenced soil data is attached in [Appendix II](#). Drainage courses in this area are typically dry. This project site is not located in a high Karst potential area (KarstMap, [Appendix I](#)).

Groundwater and Site Characterization

The New Mexico Office of the State Engineer web site indicates that the nearest reported depth to groundwater is 180-feet below ground surface (BGS). See [Appendix II](#) for the referenced groundwater data.

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	180 Feet/BGS
----------------------------------	--------------

<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 300 feet of any continuously flowing watercourse or any other significant watercourse
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 200 feet of any lakebed, sinkhole, or a playa lake
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 300 feet from an occupied permanent residence, school, hospital, institution, or church
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 1000 feet of any freshwater well or spring
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 300 feet of a wetland
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within the area overlying a subsurface mine
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within an unstable area
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within a 100-year floodplain

Due to groundwater data being outside the recommended 0.5-mile radius of the release, a groundwater determination bore was drilled to a depth of 105-foot BGS. No groundwater was present the day of drilling nor 72-hours after drilling occurred. As groundwater is greater than 100-feet BGS the closure criteria for this site are as follows:

Table I			
Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
>100 feet	Chloride **	EPA 300.0 or SM4500 CIB	20,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

Incident Description

On August 14, 2024, it was discovered that lightning had struck the produced water tank causing a fire and release of approximately 42 barrels (bbls) of produced water. A total of 10 bbls were recovered.

Soil Assessment Activities

H&R mobilized personnel to begin soil assessment sampling activities of the release area. Grab samples were obtained by way of air rotary drill and transported to Cardinal Laboratory for analysis. The results of that analysis are presented in the following data table. Initial soil assessment sampling locations are illustrated on Soil Assessment Map, [Appendix I](#). Western delineation of this spill incident can be found in Appendix VI, as that references an additional NMOCD spill incident (nRM2009253961). Photographic documentation is attached in [Appendix IV](#). A complete laboratory report can be found in [Appendix V](#).

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	CI mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	1000 mg/kg		2500 mg/kg	2500 mg/kg	20,000 mg/kg
BH-1	11/11/2024	0-1'	ND	ND	ND	ND	ND	0	1020
		2'	ND	ND	ND	ND	ND	0	928
		3'	ND	ND	ND	ND	ND	0	1790
		4'	ND	ND	ND	ND	ND	0	3040
		6'	ND	ND	ND	ND	ND	0	4560
		8'	ND	ND	ND	ND	ND	0	384
BH-2	11/11/2024	0-1'	ND	ND	ND	ND	ND	0	272
		2'	ND	ND	ND	ND	ND	0	192
		3'	ND	ND	ND	ND	ND	0	320
		4'	ND	ND	ND	ND	ND	0	48
BH-3	11/11/2024	0-1'	ND	ND	ND	ND	ND	0	2480
		2'	ND	ND	ND	ND	ND	0	176
		3'	ND	ND	ND	ND	ND	0	144
		4'	ND	ND	ND	ND	ND	0	32
H-1	11/11/2024	0-1'	ND	ND	ND	ND	ND	0	16
H-2	11/11/2024	0-1'	ND	ND	ND	ND	ND	0	16
H-3	11/11/2024	0-1'	ND	ND	ND	ND	ND	0	32

ND = Analyte Not Detected BH = Vertical Bore Hole Sample H = Horizontal Sample

Based on the results of our soil assessment, being in a low karst potential area, and groundwater being over 100-foot BGS, Cimarex Energy Co. of Colorado is requesting this release be deferred till the time of reclamation.

Closure

Based on the soil assessment sample results completed for this project, on behalf of Cimarex Energy Co. of Colorado, we request that no further actions be required at this time, and that closure of this incident is granted. Remediation of the affected area will take place during P&A & reclamation activities.

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
Environmental Project Manager

Attachments:

Appendix I Site Maps
Appendix II Soil Survey, Groundwater Data, FEMA Flood Zone, NMOSE Well Record
Appendix III NMOCD Correspondence
Appendix IV Photographic Documentation
Appendix V Laboratory Reports

APPENDIX I

SITE MAPS

KARST POTENTIAL MAP

TOPOGRAPHIC MAP

LOCATOR MAP

Palmillo State Com #004

Cimarex Energy Co. of Colorado
Incident# nAPP2422766341
Eddy County, NM
Soil Assessment Map

Legend

- Horizontal Sample Point
- Vertical Bore Hole Sample Point



Palmillo State Com #004

Cimarex Energy Co. of Colorado
Incident# nAPP2422766341
Eddy County, NM
Karst Potential Map

Legend

- High
- Low
- Medium
- Palmillo State Com #004

Google Earth

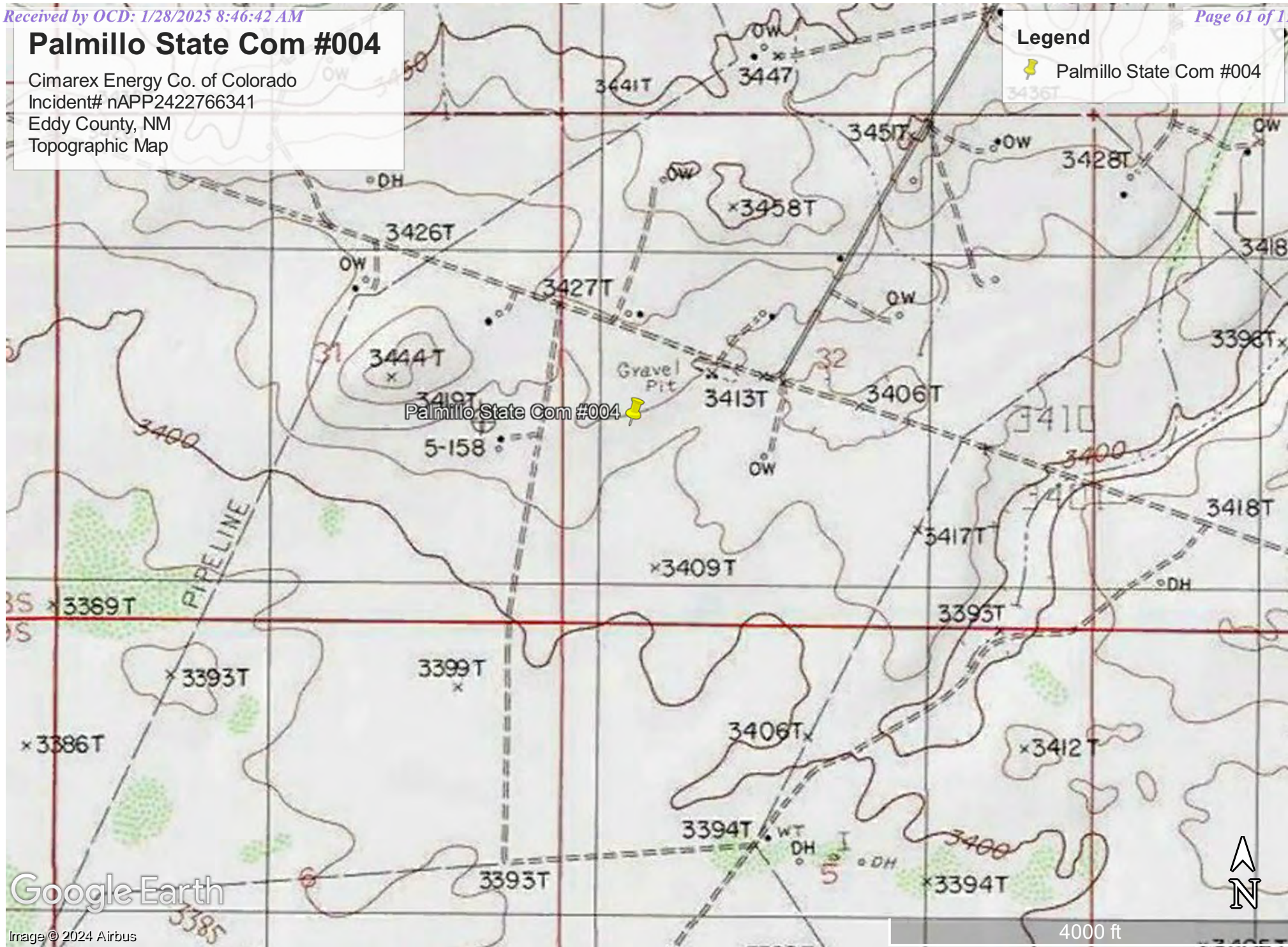
Image © 2024 Airbus



3 mi

Cimarex Energy Co. of Colorado
Incident# nAPP2422766341
Eddy County, NM
Topographic Map


 Palmillo State Com #004

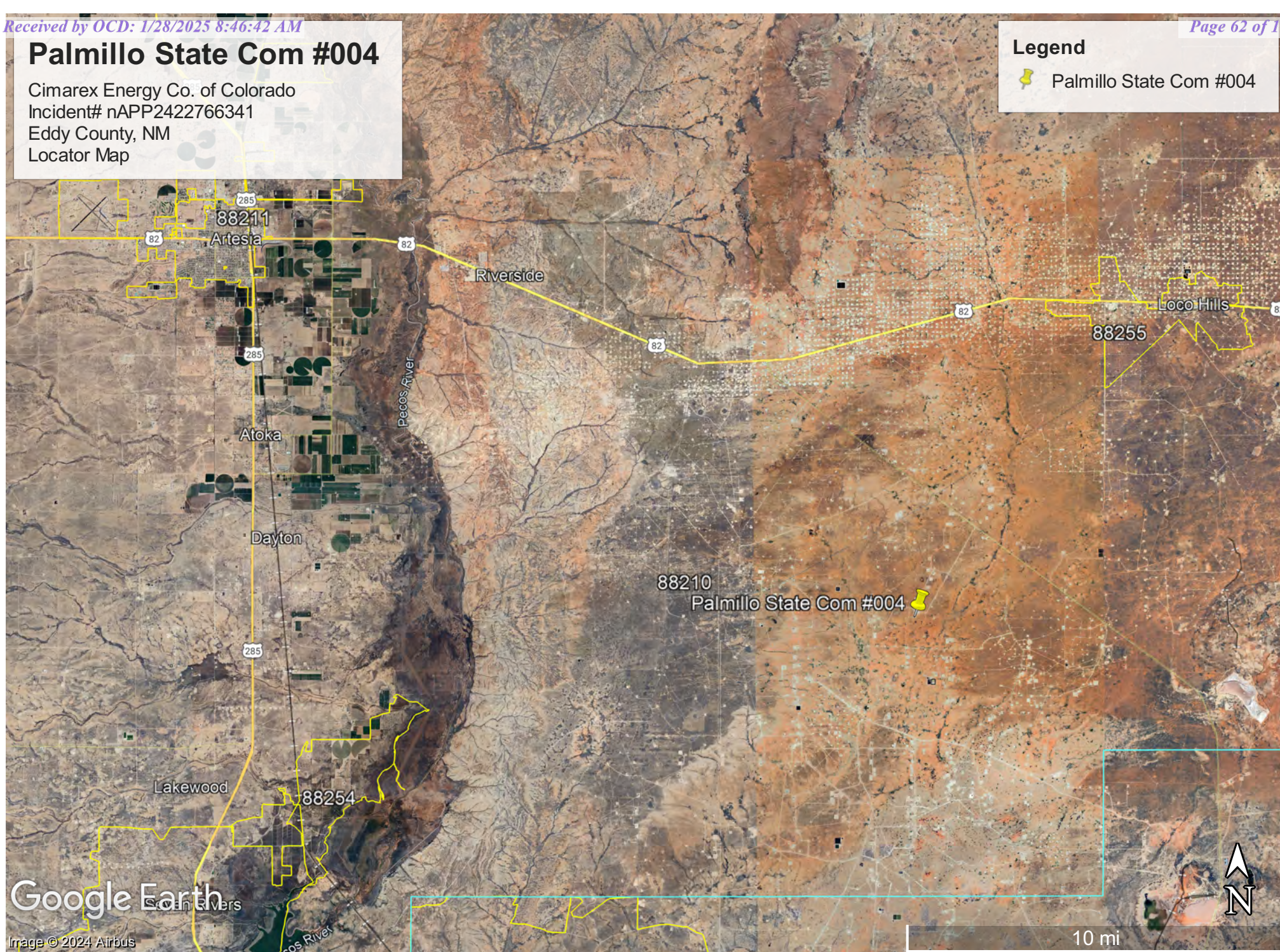


Palmillo State Com #004

Cimarex Energy Co. of Colorado
Incident# nAPP2422766341
Eddy County, NM
Locator Map

Legend

 Palmillo State Com #004



Google Earth

Image © 2024 Airbus

APPENDIX II

GROUNDWATER DATA

SOIL SURVEY

FEMA FLOOD ZONE

NMOSE WELL LOG & PLUGGING RECORD

Water Column/Average Depth to Water

(AOLW##### 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 closed)	(quarters are smallest to largest)	(NAD83 UTM in meters)
--	---	------------------------------------	-----------------------

POD Number	Code	Sub basin	County	Q64	Q16	Q4	Sec	Tws	Range	X
CP 01618 POD1		CP	ED	SW	SE	NE	29	18S	29E	585119.6 3620
CP 01858 POD1		CP	ED	SE	NW	SE	01	19S	28E	581872.2 3617

Record Count: 2

Basin/County Search:

County: ED

UTM Filters (in meters):

Easting: 584039.75

Northing: 3618680.43

Radius: 03000

* 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.

11/22/24 9:33 AM MST Water Column/Average Depth to Water

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PLUGGING RECORD



NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: CP-2023

Well owner: Coterra Energy Co. (Agent James Hawley H&R)

Phone No.: _____

Mailing address: P.O. Box 3641

City: Hobbs State: NM Zip code: 88241

II. WELL PLUGGING INFORMATION:

- 1) Name of well drilling company that plugged well: H&R Enterprises, LLC.
- 2) New Mexico Well Driller License No.: WD-1862 Expiration Date: 6-16-25
- 3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s):
Nathan Smelcer
- 4) Date well plugging began: 11-15-24 Date well plugging concluded: 11-15-24
- 5) GPS Well Location: Latitude: 32 deg, 42 min, 09.6 sec
Longitude: 104 deg, 06 min, 12.2 sec, WGS 84
- 6) Depth of well confirmed at initiation of plugging as: 105' ft below ground level (bgl),
by the following manner: well sounder
- 7) Static water level measured at initiation of plugging: N/A ft bgl
- 8) Date well plugging plan of operations was approved by the State Engineer: 10-18-24
- 9) Were all plugging activities consistent with an approved plugging plan? yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

- For each interval plugged, describe within the following columns:

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

I, James Hawley, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Signature of Well Driller

Date _____



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

PALMILLO
11/18/24

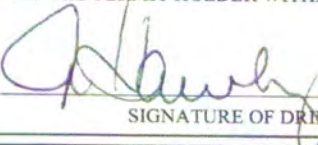
1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) Pod 1		WELL TAG ID NO.		OSE FILE NO(S) CP-2023			
	WELL OWNER NAME(S) Coterra Energy Co. (Agent James Hawley H&R Enterprises, LLC)					PHONE (OPTIONAL)		
	WELL OWNER MAILING ADDRESS P.O. Box 3641					CITY Hobbs	STATE NM	
						ZIP 88241		
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 42	SECONDS 09.6	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND		
		LONGITUDE 104	06	12.2	W	* DATUM REQUIRED: WGS 84		
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE								
2. DRILLING & CASING INFORMATION	LICENSE NO. WD-1862		NAME OF LICENSED DRILLER James Hawley			NAME OF WELL DRILLING COMPANY H&R Enterprises, LLC		
	DRILLING STARTED 11-11-24	DRILLING ENDED 11-11-24	DEPTH OF COMPLETED WELL (FT) 105'		BORE HOLE DEPTH (FT) 105'	DEPTH WATER FIRST ENCOUNTERED (FT) N/A		
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN *add Centralizer info below <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A	DATE STATIC MEASURED 11-15-24	
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY:						CHECK HERE IF PITLESS ADAPTER IS INSTALLED <input type="checkbox"/>	
	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	0' 105'		6'	No casing left in hole				
3. ANNULAR MATERIAL	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE- RANGE BY INTERVAL *(if using Centralizers for Artesian wells- indicate the spacing below)		AMOUNT (cubic feet)	METHOD OF PLACEMENT	
				N/A				

FOR OSE INTERNAL USE

FILE NO.	POD NO.	WR-20 WELL RECORD & LOG (Version 09/22/2022)	
LOCATION	WELL TAG ID NO.	TRN NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO				
	0'	5'	5'	Sandy Topsoil	Y ✓ N	
	5'	26'	21'	Sandy Caliche	Y ✓ N	
	26'	105'	79'	Sand & Gravel	Y ✓ N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
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					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:					TOTAL ESTIMATED WELL YIELD (gpm): 0.00	
<input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input checked="" type="checkbox"/> OTHER - SPECIFY: Dry Hole						

5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.
	MISCELLANEOUS INFORMATION: Well was gauged for water on 11-15-24, well bore was dry, temporary well casing was removed, bore hole was backfilled to 10' BGS with drill cuttings, then hydrated bentonite chips were poured from 10' BGS to surface.	
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Nathan Smelcer	

6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:	
	 SIGNATURE OF DRILLER / PRINT SIGNEE NAME	James Hawley 11-18-24 DATE

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 09/22/2022)	
FILE NO.	POD NO.	TRN NO.	
LOCATION	WELL TAG ID NO.		PAGE 2 OF 2

Map Unit Description: Tonuco loamy fine sand, 0 to 3 percent slopes---Eddy Area, New Mexico

Eddy Area, New Mexico

TF—Tonuco loamy fine sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w61

Elevation: 3,000 to 4,100 feet

Mean annual precipitation: 10 to 14 inches

Mean annual air temperature: 60 to 64 degrees F

Frost-free period: 200 to 217 days

Farmland classification: Not prime farmland

Map Unit Composition

Tonuco and similar soils: 98 percent

Minor components: 2 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tonuco

Setting

Landform: Plains, alluvial fans

Landform position (three-dimensional): Rise

Down-slope shape: Convex, linear

Across-slope shape: Linear

Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 5 inches: loamy fine sand

H2 - 5 to 15 inches: loamy fine sand

H3 - 15 to 19 inches: indurated

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 6 to 20 inches to petrocalcic

Drainage class: Excessively drained

Runoff class: Very 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

Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)

Sodium adsorption ratio, maximum: 1.0

Available water supply, 0 to 60 inches: Very low (about 1.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: D

Ecological site: R070BD004NM - Sandy

Hydric soil rating: No

Map Unit Description: Tonuco loamy fine sand, 0 to 3 percent slopes---Eddy Area, New Mexico

Minor Components

Tonuco

Percent of map unit: 1 percent

Ecological site: R070BD004NM - Sandy

Hydric soil rating: No

Dune land

Percent of map unit: 1 percent

Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico

Survey Area Data: Version 20, Sep 3, 2024

National Flood Hazard Layer FIRMette



104°6'31"W 32°42'25"N



1:6,000

104°5'54"W 32°41'54"N

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 11/25/2024 at 10:00 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

C-141

**NMOCD
CORRESPONDENCE**

OCD Permitting

Home Operator Data Action Status Action Search Results Action Status Item Details

[C-141] Initial C-141 (C-141-V-INITIAL) Application

Submission Information

Submission ID:	374120	Districts:	Artesia
Operator:	[162683] CIMAREX ENERGY CO. OF COLORADO	Counties:	Eddy
Description:	CIMAREX ENERGY CO. OF COLORADO [162683] , PALMILLO STATE 4 , nAPP2422766341		
Status:	APPROVED		
Status Date:	08/15/2024		
References (2):	fAPP2202675850, nAPP2422766341		

Forms

Attachments: [Volume Calculation](#)

Questions

Prerequisites

Incident ID (n#)	nAPP2422766341
Incident Name	NAPP2422766341 PALMILLO STATE 4 @ 0
Incident Type	Produced Water Release
Incident Status	Initial C-141 Received
Incident Facility	[fAPP2202675850] PALMILLO STATE 4

Location of Release Source

Please answer all the questions in this group.

Site Name	PALMILLO STATE 4
Date Release Discovered	08/14/2024
Surface Owner	State

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	Yes
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

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: Lightning Tank (Any) Produced Water Released: 47 BBL Recovered: 10 BBL Lost: 37 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)	We had a lightning strike that resulted in a fire and a spill at the Palmillo State 4. No injuries were associated w 0128, the Coterra Control Room received a call about a possible fire at the Palmillo State 4 well, which was ca Melbourne employee. At 0257, the Coterra Lease Operator arrived on site and confirmed the fire had self-extir reviewing the water tank gauges, an estimated 42 barrels were in the tank. A vac truck was able to recover a t water from inside the berm. The remainder of the fluid is believed to have vaporized in the fire.

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	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. “Major release” determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more; (2) an unauthorized release of a volume that: (a) results in a fire or is the result of a fire; (d) substantially damages property or the environment.

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 follo 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 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 I 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 shc 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 do 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: 08/15/2024
--	---

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)	Not answered.
What method was used to determine the depth to ground water	Not answered.

A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Not answered.
Any other fresh water well or spring	Not answered.
Incorporated municipal boundaries or a defined municipal fresh water well field	Not answered.
A wetland	Not answered.
A subsurface mine	Not answered.
An (non-karst) unstable area	Not answered.
Categorize the risk of this well / site being in a karst geology	Not answered.
A 100-year floodplain	Not answered.
Did the release impact areas not on an exploration, development, production, or storage site	Not answered.

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 No

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, then it should consult with the division to determine if another remediation plan submission is required.

Acknowledgments

This submission type does not have acknowledgments, at this time.

Comments

No comments found for this submission.

Conditions

Summary: nvelez (8/15/2024), None

Reasons

No reasons found for this submission.

Go Back

From: [Velez, Nelson, EMNRD](#)
To: [Laci Luig](#)
Subject: Re: [EXTERNAL] Palmillo State 4 Sample Variance Request
Date: Friday, November 22, 2024 4:13:47 PM
Attachments: [image001.jpg](#)
[Outlook-4n1cob0h.png](#)
[0.jpg](#)

WARNING: This email originated from outside of Coterra Energy. Do not click links or open attachments unless you recognize the sender, are expecting the content and know it is safe.



Good afternoon Laci,

Thanks for the correspondence. After careful review of the information provided, OCD approves the variance requested.

In the future, please provide sampling notification for delineation sampling to ensure that they may possibly be used as final samples toward closure. Adherence to Part 29 as written, is vital to achieving the end results that everyone desires. This approval is for these two (2) incidents and should not be viewed as precedent for any future incidents. All incidents will be reviewed on a case-by-case basis and follow the rule as it was intended.

Lastly, both incidents remediation due dates have expired. Please submit your final remediation closure report as soon as possible.

OCD will use its discretion to determine if additional enforcement action is warranted. Cooperation from Cimarex will be considered when determining any enforcement actions, which may include civil penalties.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

The OCD requires a copy of all correspondence relative to remedial activities be included in all proposals and/or final closure reports. Correspondence required to be included in reports may include, but not limited to, notifications for liner inspections, sample events, spill/release/fire, and request for time extensions or variances.

Regards,

Nelson Velez • Environmental Specialist - Adv
Environmental Bureau | EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87410
(505) 469-6146 | nelson.velez@emnrd.nm.gov
<http://www.emnrd.nm.gov/oecd>



From: Laci Luig <Laci.Luig@coterra.com>
Sent: Friday, November 22, 2024 1:19 PM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Subject: [EXTERNAL] Palmillo State 4 Sample Variance Request

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

Mr. Velez,

Thank you for taking my call this morning. As I mentioned, Cimarex has 2 open incidents at the Palmillo State 4, located at 32.70265, -104.10348, in Eddy County, NM.

Incident Numbers:

nRM2009253961 – release date 3/26/2020

nAPP2422766341 – release date 8/14/2024

On November 11, 2024, H&R Enterprises arrived on location to drill delineation sample points inside the 2 earthen berms from surface to 4' bgs, or until field screens were below 600 mg/kg chlorides. The sample map along with the lab data table for each incident is attached.

While on location, a ground water determination bore was drilled to 105' below surface then bailed after 72 hours to prove no shallow groundwater. The closest USGS record to groundwater is 2.32 miles to the Southeast with a DTW record of 205' bgs. Additionally, the Palmillo State 4 is located in a low karst area and has no potential impact to health and safety of humans, groundwater or the environment. Based on the characterization of the site, and analytical data of the delineation samples, Cimarex will follow Table I Closure Criteria for >100' DTW.

As it was not anticipated for the delineation samples collected on November 11th to have been used as the final samples, Cimarex is respectfully requesting a variance to spill rule [19.15.29.12](#) subpart D (1)(a) that requires a 2 business day notice to conducting final sampling.

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.

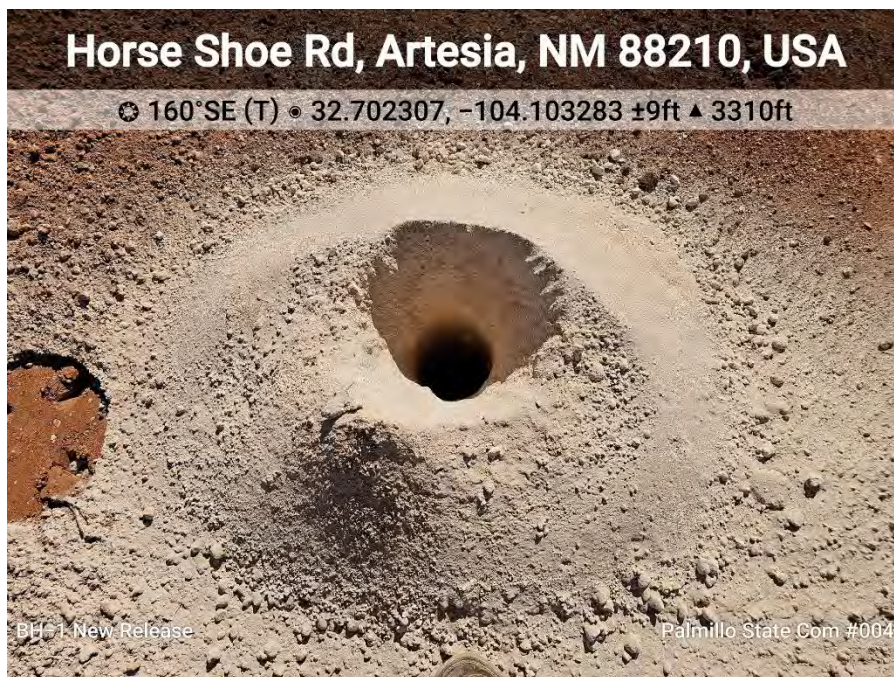
This message may contain confidential and/or privileged information. If you are not the addressee or authorized to receive this for the addressee, you must not use, copy, disclose or take any action based on this message or any information herein. If you have received this message in error, please advise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

APPENDIX IV

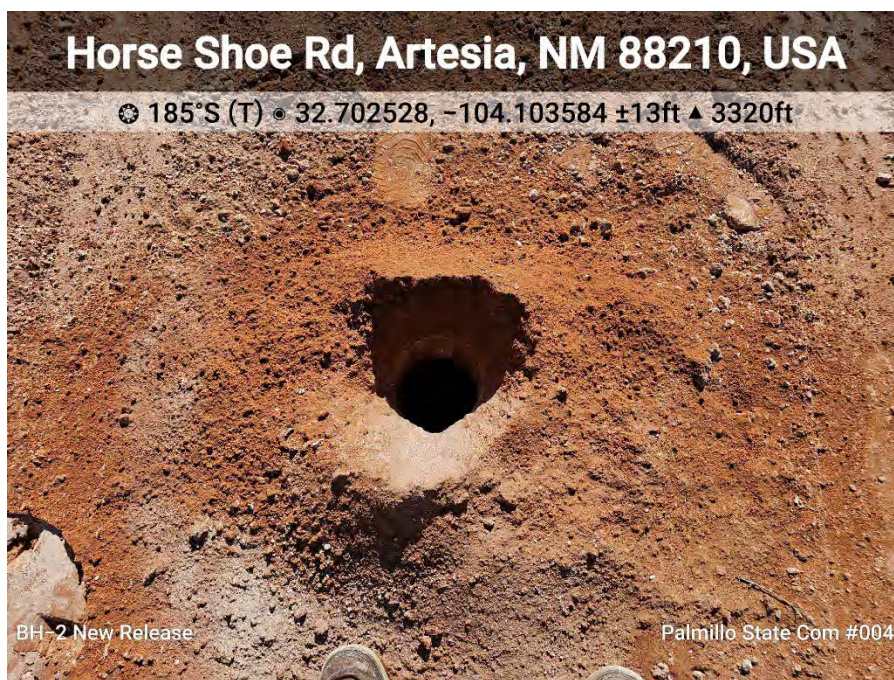
PHOTOGRAPHIC DOCUMENTATION

PHOTOGRAPHIC DOCUMENTATION

BORE HOLE PHOTOGRAPHS

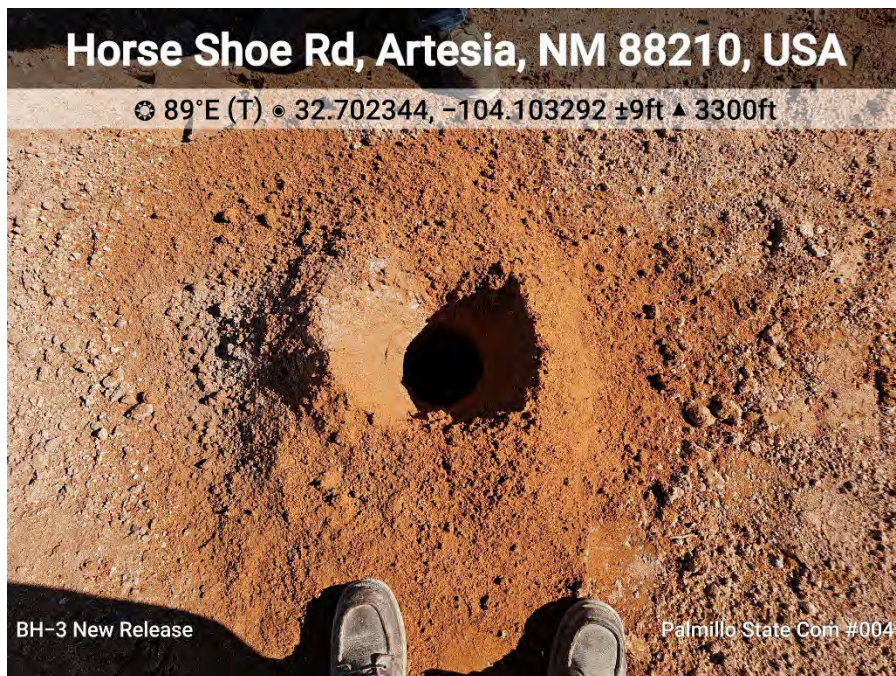


BH-1



BH-2

PHOTOGRAPHIC DOCUMENTATION



BH-3

APPENDIX V

LABORATORY REPORT



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

November 15, 2024

MICHAEL COLLIER

H & R ENTERPRISES

1010 GAMBLIN ROAD

HOBBS, NM 88240

RE: PALMILLO STATE COM #004

Enclosed are the results of analyses for samples received by the laboratory on 11/12/24 12:02.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. 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.

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".

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: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL NEW)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 1 0-01' (H246882-01)

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	11/13/2024	ND	1.94	97.2	2.00	4.57	
Toluene*	<0.050	0.050	11/13/2024	ND	2.07	103	2.00	3.30	
Ethylbenzene*	<0.050	0.050	11/13/2024	ND	2.25	112	2.00	3.48	
Total Xylenes*	<0.150	0.150	11/13/2024	ND	6.71	112	6.00	3.90	
Total BTX	<0.300	0.300	11/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 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	1020	16.0	11/13/2024	ND	400	100	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	11/12/2024	ND	198	99.2	200	1.67	
DRO >C10-C28*	<10.0	10.0	11/12/2024	ND	205	102	200	0.998	
EXT DRO >C28-C36	<10.0	10.0	11/12/2024	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL NEW)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 1 2' (H246882-02)

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	11/13/2024	ND	1.94	97.2	2.00	4.57	
Toluene*	<0.050	0.050	11/13/2024	ND	2.07	103	2.00	3.30	
Ethylbenzene*	<0.050	0.050	11/13/2024	ND	2.25	112	2.00	3.48	
Total Xylenes*	<0.150	0.150	11/13/2024	ND	6.71	112	6.00	3.90	
Total BTEx	<0.300	0.300	11/13/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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	928	16.0	11/13/2024	ND	400	100	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	11/12/2024	ND	198	99.2	200	1.67	
DRO >C10-C28*	<10.0	10.0	11/12/2024	ND	205	102	200	0.998	
EXT DRO >C28-C36	<10.0	10.0	11/12/2024	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 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:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL NEW)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 1 3' (H246882-03)

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	11/13/2024	ND	1.94	97.2	2.00	4.57		
Toluene*	<0.050	0.050	11/13/2024	ND	2.07	103	2.00	3.30		
Ethylbenzene*	<0.050	0.050	11/13/2024	ND	2.25	112	2.00	3.48		
Total Xylenes*	<0.150	0.150	11/13/2024	ND	6.71	112	6.00	3.90		
Total BTEx	<0.300	0.300	11/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.2 % 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	1790	16.0	11/13/2024	ND	400	100	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	11/12/2024	ND	198	99.2	200	1.67	
DRO >C10-C28*	<10.0	10.0	11/12/2024	ND	205	102	200	0.998	
EXT DRO >C28-C36	<10.0	10.0	11/12/2024	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 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:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL NEW)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 1 4' (H246882-04)

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	11/13/2024	ND	1.94	97.2	2.00	4.57		
Toluene*	<0.050	0.050	11/13/2024	ND	2.07	103	2.00	3.30		
Ethylbenzene*	<0.050	0.050	11/13/2024	ND	2.25	112	2.00	3.48		
Total Xylenes*	<0.150	0.150	11/13/2024	ND	6.71	112	6.00	3.90		
Total BTEX	<0.300	0.300	11/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 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	3040	16.0	11/13/2024	ND	400	100	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	11/12/2024	ND	198	99.2	200	1.67	
DRO >C10-C28*	<10.0	10.0	11/12/2024	ND	205	102	200	0.998	
EXT DRO >C28-C36	<10.0	10.0	11/12/2024	ND					

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 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:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL NEW)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 1 6' (H246882-05)

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	11/13/2024	ND	1.94	97.2	2.00	4.57		
Toluene*	<0.050	0.050	11/13/2024	ND	2.07	103	2.00	3.30		
Ethylbenzene*	<0.050	0.050	11/13/2024	ND	2.25	112	2.00	3.48		
Total Xylenes*	<0.150	0.150	11/13/2024	ND	6.71	112	6.00	3.90		
Total BTEX	<0.300	0.300	11/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 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	4560	16.0	11/13/2024	ND	400	100	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	11/12/2024	ND	198	99.2	200	1.67	
DRO >C10-C28*	<10.0	10.0	11/12/2024	ND	205	102	200	0.998	
EXT DRO >C28-C36	<10.0	10.0	11/12/2024	ND					

Surrogate: 1-Chlorooctane 118 % 48.2-134

Surrogate: 1-Chlorooctadecane 123 % 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:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL NEW)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 1 8' (H246882-06)

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	11/13/2024	ND	1.94	97.2	2.00	4.57		
Toluene*	<0.050	0.050	11/13/2024	ND	2.07	103	2.00	3.30		
Ethylbenzene*	<0.050	0.050	11/13/2024	ND	2.25	112	2.00	3.48		
Total Xylenes*	<0.150	0.150	11/13/2024	ND	6.71	112	6.00	3.90		
Total BTEX	<0.300	0.300	11/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	384	16.0	11/13/2024	ND	400	100	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	11/12/2024	ND	198	99.2	200	1.67	
DRO >C10-C28*	<10.0	10.0	11/12/2024	ND	205	102	200	0.998	
EXT DRO >C28-C36	<10.0	10.0	11/12/2024	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 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:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL NEW)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 2 0-01' (H246882-07)

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	11/13/2024	ND	1.94	97.2	2.00	4.57		
Toluene*	<0.050	0.050	11/13/2024	ND	2.07	103	2.00	3.30		
Ethylbenzene*	<0.050	0.050	11/13/2024	ND	2.25	112	2.00	3.48		
Total Xylenes*	<0.150	0.150	11/13/2024	ND	6.71	112	6.00	3.90		
Total BTEx	<0.300	0.300	11/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	272	16.0	11/13/2024	ND	400	100	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	11/12/2024	ND	198	99.2	200	1.67	
DRO >C10-C28*	<10.0	10.0	11/12/2024	ND	205	102	200	0.998	
EXT DRO >C28-C36	<10.0	10.0	11/12/2024	ND					

Surrogate: 1-Chlorooctane 119 % 48.2-134

Surrogate: 1-Chlorooctadecane 125 % 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:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL NEW)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 2 2' (H246882-08)

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	11/13/2024	ND	1.94	97.2	2.00	4.57		
Toluene*	<0.050	0.050	11/13/2024	ND	2.07	103	2.00	3.30		
Ethylbenzene*	<0.050	0.050	11/13/2024	ND	2.25	112	2.00	3.48		
Total Xylenes*	<0.150	0.150	11/13/2024	ND	6.71	112	6.00	3.90		
Total BTEx	<0.300	0.300	11/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 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	192	16.0	11/13/2024	ND	400	100	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	11/12/2024	ND	198	99.2	200	1.67	
DRO >C10-C28*	<10.0	10.0	11/12/2024	ND	205	102	200	0.998	
EXT DRO >C28-C36	<10.0	10.0	11/12/2024	ND					

Surrogate: 1-Chlorooctane 117 % 48.2-134

Surrogate: 1-Chlorooctadecane 124 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL NEW)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 2 3' (H246882-09)

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	11/13/2024	ND	1.94	97.2	2.00	4.57		
Toluene*	<0.050	0.050	11/13/2024	ND	2.07	103	2.00	3.30		
Ethylbenzene*	<0.050	0.050	11/13/2024	ND	2.25	112	2.00	3.48		
Total Xylenes*	<0.150	0.150	11/13/2024	ND	6.71	112	6.00	3.90		
Total BTEx	<0.300	0.300	11/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	320	16.0	11/13/2024	ND	400	100	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	11/12/2024	ND	198	99.2	200	1.67	
DRO >C10-C28*	<10.0	10.0	11/12/2024	ND	205	102	200	0.998	
EXT DRO >C28-C36	<10.0	10.0	11/12/2024	ND					

Surrogate: 1-Chlorooctane 119 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL NEW)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 2 4' (H246882-10)

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	11/13/2024	ND	1.94	97.2	2.00	4.57		
Toluene*	<0.050	0.050	11/13/2024	ND	2.07	103	2.00	3.30		
Ethylbenzene*	<0.050	0.050	11/13/2024	ND	2.25	112	2.00	3.48		
Total Xylenes*	<0.150	0.150	11/13/2024	ND	6.71	112	6.00	3.90		
Total BTEx	<0.300	0.300	11/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	48.0	16.0	11/13/2024	ND	400	100	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	11/12/2024	ND	198	99.2	200	1.67	
DRO >C10-C28*	<10.0	10.0	11/12/2024	ND	205	102	200	0.998	
EXT DRO >C28-C36	<10.0	10.0	11/12/2024	ND					

Surrogate: 1-Chlorooctane 119 % 48.2-134

Surrogate: 1-Chlorooctadecane 125 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL NEW)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 3 0-01' (H246882-11)

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	11/13/2024	ND	1.94	97.2	2.00	4.57		
Toluene*	<0.050	0.050	11/13/2024	ND	2.07	103	2.00	3.30		
Ethylbenzene*	<0.050	0.050	11/13/2024	ND	2.25	112	2.00	3.48		
Total Xylenes*	<0.150	0.150	11/13/2024	ND	6.71	112	6.00	3.90		
Total BTEX	<0.300	0.300	11/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	2480	16.0	11/13/2024	ND	400	100	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	11/12/2024	ND	198	99.2	200	1.67	
DRO >C10-C28*	<10.0	10.0	11/12/2024	ND	205	102	200	0.998	
EXT DRO >C28-C36	<10.0	10.0	11/12/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL NEW)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 3 2' (H246882-12)

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	11/13/2024	ND	1.94	97.2	2.00	4.57		
Toluene*	<0.050	0.050	11/13/2024	ND	2.07	103	2.00	3.30		
Ethylbenzene*	<0.050	0.050	11/13/2024	ND	2.25	112	2.00	3.48		
Total Xylenes*	<0.150	0.150	11/13/2024	ND	6.71	112	6.00	3.90		
Total BTEx	<0.300	0.300	11/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 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	176	16.0	11/13/2024	ND	400	100	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	11/13/2024	ND	198	99.2	200	1.67	
DRO >C10-C28*	<10.0	10.0	11/13/2024	ND	205	102	200	0.998	
EXT DRO >C28-C36	<10.0	10.0	11/13/2024	ND					

Surrogate: 1-Chlorooctane 118 % 48.2-134

Surrogate: 1-Chlorooctadecane 124 % 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:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL NEW)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 3 3' (H246882-13)

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	11/13/2024	ND	1.94	97.2	2.00	4.57		
Toluene*	<0.050	0.050	11/13/2024	ND	2.07	103	2.00	3.30		
Ethylbenzene*	<0.050	0.050	11/13/2024	ND	2.25	112	2.00	3.48		
Total Xylenes*	<0.150	0.150	11/13/2024	ND	6.71	112	6.00	3.90		
Total BTEx	<0.300	0.300	11/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	11/13/2024	ND	400	100	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	11/13/2024	ND	198	99.2	200	1.67	
DRO >C10-C28*	<10.0	10.0	11/13/2024	ND	205	102	200	0.998	
EXT DRO >C28-C36	<10.0	10.0	11/13/2024	ND					

Surrogate: 1-Chlorooctane 120 % 48.2-134

Surrogate: 1-Chlorooctadecane 127 % 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:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL NEW)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BH - 3 4' (H246882-14)

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	11/13/2024	ND	1.94	97.2	2.00	4.57		
Toluene*	<0.050	0.050	11/13/2024	ND	2.07	103	2.00	3.30		
Ethylbenzene*	<0.050	0.050	11/13/2024	ND	2.25	112	2.00	3.48		
Total Xylenes*	<0.150	0.150	11/13/2024	ND	6.71	112	6.00	3.90		
Total BTEx	<0.300	0.300	11/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 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	32.0	16.0	11/13/2024	ND	400	100	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	11/12/2024	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	11/12/2024	ND	184	91.9	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/12/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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Analytical Results For:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL NEW)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 1 0-1' (H246882-15)

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	11/13/2024	ND	1.94	97.2	2.00	4.57		
Toluene*	<0.050	0.050	11/13/2024	ND	2.07	103	2.00	3.30		
Ethylbenzene*	<0.050	0.050	11/13/2024	ND	2.25	112	2.00	3.48		
Total Xylenes*	<0.150	0.150	11/13/2024	ND	6.71	112	6.00	3.90		
Total BTEX	<0.300	0.300	11/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	11/13/2024	ND	400	100	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	11/12/2024	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	11/12/2024	ND	184	91.9	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/12/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 119 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL NEW)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 2 0-1' (H246882-16)

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	11/13/2024	ND	1.94	97.2	2.00	4.57		
Toluene*	<0.050	0.050	11/13/2024	ND	2.07	103	2.00	3.30		
Ethylbenzene*	<0.050	0.050	11/13/2024	ND	2.25	112	2.00	3.48		
Total Xylenes*	<0.150	0.150	11/13/2024	ND	6.71	112	6.00	3.90		
Total BTEx	<0.300	0.300	11/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	16.0	16.0	11/13/2024	ND	400	100	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	11/12/2024	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	11/12/2024	ND	184	91.9	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/12/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 119 % 49.1-148

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Analytical Results For:

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

Received: 11/12/2024
 Reported: 11/15/2024
 Project Name: PALMILLO STATE COM #004
 Project Number: (PAL NEW)
 Project Location: COTERRA - EDDY

Sampling Date: 11/11/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 3 0-1' (H246882-17)

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	11/13/2024	ND	1.94	97.2	2.00	4.57		
Toluene*	<0.050	0.050	11/13/2024	ND	2.07	103	2.00	3.30		
Ethylbenzene*	<0.050	0.050	11/13/2024	ND	2.25	112	2.00	3.48		
Total Xylenes*	<0.150	0.150	11/13/2024	ND	6.71	112	6.00	3.90		
Total BTEX	<0.300	0.300	11/13/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 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	11/13/2024	ND	400	100	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	11/12/2024	ND	201	101	200	4.45	
DRO >C10-C28*	<10.0	10.0	11/12/2024	ND	184	91.9	200	0.0245	
EXT DRO >C28-C36	<10.0	10.0	11/12/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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Notes and Definitions

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 "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: H&R Enterprises		BILL TO		ANALYSIS REQUEST																																	
Project Manager: Michael Collier		P.O. #:																																			
Address:		Company: Coterra																																			
City:		Attn: Laci Luig																																			
State: NM		Address:																																			
Fax #:		City:																																			
Project #:		State:																																			
Project Name: Palmilla State Cor #004		Zip:																																			
Project Location: Eddy County, NM		Phone #:																																			
Sampler Name: N. Smelcer		Fax #:																																			
FOR LAB USE ONLY		PRESERV.		SAMPLING																																	
Lab I.D.		DATE		TIME																																	
H246882		1/14/24																																			
1 BH-1 0-01'		G		1		(G)RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE:		ICE / COOL		OTHER :		DATE		TIME		BTX		TPH		Chlorides	
2 BH-1 2'																																					
3 BH-1 3'																																					
4 BH-1 4'																																					
5 BH-1 6'																																					
6 BH-1 8'																																					
7 BH-2 0-01'																																					
8 BH-2 2'																																					
9 BH-2 3'																																					
10 BH-2 4'																																					

REMARKS: pg 2 of 2

Continued on next page

Thermometer ID #146

Correction Factor -0.02

Thermometer Type: ☒ Standard ☐ Backup (only) Sample Condition

Correction Factor: ☒ No ☐ Yes

Corrected Temp. °C

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

All Results are emailed. Please provide Email address:

Relinquished By: Nathan Smelcer

Received By: S. Becking

Date: 1/14/24

Time: 1300

Observed Temp. °C: 3.7

Corrected Temp. °C: 3.1

Sample Condition: ☒ Cool ☐ Intact ☐ No ☐ No

CHECKED BY: (Initials) SR

Delivered By: (Circle One) Sampler - UPS - Bus - Other:

FORM-006 R 3.2 10/07/21

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

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

General Information
Phone: (505) 629-6116

Online Phone Directory
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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 425563

QUESTIONS

Operator: Coterra Energy Operating Co. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 425563
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nRM2009253961
Incident Name	NRM2009253961 PALMILLO STATE 4H @ 30-015-31497
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received
Incident Well	[30-015-31497] PALMILLO STATE COM #004

Location of Release Source	
<i>Please answer all the questions in this group.</i>	
Site Name	PALMILLO STATE 4H
Date Release Discovered	03/26/2020
Surface Owner	State

Incident Details	
<i>Please answer all the questions in this group.</i>	
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	
<i>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.</i>	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Corrosion Tank (Any) Produced Water Released: 41 BBL Recovered: 5 BBL Lost: 36 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
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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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 425563

QUESTIONS (continued)

Operator: Coterra Energy Operating Co. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 425563
	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	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
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: Ashton Thielke Title: EHS Specialist Email: Ashton.Thielke@coterra.com Date: 01/28/2025
--	--

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Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

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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 425563

QUESTIONS (continued)

Operator: Coterra Energy Operating Co. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 425563
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
<i>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.</i>	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
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	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 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	Greater than 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 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
<i>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.</i>	
Requesting a remediation plan approval with this submission	Yes
<i>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.</i>	
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)	64
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
<i>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>	
On what estimated date will the remediation commence	03/26/2020
On what date will (or did) the final sampling or liner inspection occur	11/11/2024
On what date will (or was) the remediation complete(d)	11/11/2024
What is the estimated surface area (in square feet) that will be reclaimed	1900
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	0
What is the estimated volume (in cubic yards) that will be remediated	0
<i>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.</i>	
<i>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.</i>	

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QUESTIONS, Page 4

Action 425563

QUESTIONS (continued)

Operator: Coterra Energy Operating Co. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 425563
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
<i>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.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	<i>Not answered.</i>
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	<i>Not answered.</i>
(In Situ) Soil Vapor Extraction	<i>Not answered.</i>
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	<i>Not answered.</i>
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	<i>Not answered.</i>
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	<i>Not answered.</i>
Ground Water Abatement pursuant to 19.15.30 NMAC	<i>Not answered.</i>
OTHER (Non-listed remedial process)	Yes
Other Non-listed Remedial Process. Please specify	Based off of site assessment results and evidence of deep groundwater in the area, no remediation will take place at this time. The entire site will be reclaimed per NMAC 19.15.29.13 during P/A activities.
<i>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>	
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: Ashton Thielke Title: EHS Specialist Email: Ashton.Thielke@coterra.com Date: 01/28/2025
<i>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.</i>	

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

General Information
Phone: (505) 629-6116

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

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

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Action 425563

QUESTIONS (continued)

Operator: Coterra Energy Operating Co. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 425563
	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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QUESTIONS, Page 6

Action 425563

QUESTIONS (continued)

Operator: Coterra Energy Operating Co. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 425563
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	425586
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/11/2024
What was the (estimated) number of samples that were to be gathered	6
What was the sampling surface area in square feet	1900

Remediation Closure Request	
<i>Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.</i>	
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	0
What was the total volume (cubic yards) remediated	0
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)	Based off of site assessment results and evidence of deep groundwater in the area, no remediation will take place at this time. The entire site will be reclaimed per NMAC 19.15.29.13 during P/A activities. Approx 1,900 square feet of area directly related to this spill incident will be reclaimed during P/A activities. The entire well pad will be reclaimed as well per normal oilfield operations.
<i>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>	
<p>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.</p>	
I hereby agree and sign off to the above statement	Name: Ashton Thielke Title: EHS Specialist Email: Ashton.Thielke@coterra.com Date: 01/28/2025

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Action 425563

QUESTIONS (continued)

Operator: Coterra Energy Operating Co. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 425563
	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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CONDITIONS

Action 425563

CONDITIONS

Operator: Coterra Energy Operating Co. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 425563
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
nvez	None	5/14/2025