



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

Remediation and Closure Report

Chief 30 State #001
Incident# NRM2025346674
Lea County, New Mexico

Prepared For:

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

Prepared By:

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

June 29, 2023

Mrs. Jennifer Nobui
NMOCD
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Subject: **Remediation and Closure Report**
Chief 30 State #001
Lea County, NM

Dear Mr. Bratcher,

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

Site Information

The Chief 30 State #001 is located approximately 28.5 miles Southwest of Hobbs, New Mexico. The legal location for this release is Unit Letter M, Section 30, Township 20 South and Range 35 East in Lea County, New Mexico. More specifically the latitude and longitude for the release are 32.538341 North and -103.504464 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 Kimbrough gravelly loam, 0 to 3 percent slopes. The referenced soil data is attached in [Appendix II](#). Drainage courses in this area are typically dry. The project site is 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 270-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	270 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 not being within the recommended 0.5-mile radius an exploratory water bore was drilled on the Chief 30 State #003H well pad approximately 0.46-miles to the North. The water bore was drilled to a total depth of 55-feet BGS. No groundwater was encountered during drilling nor 72-hours after drilling. Since no groundwater was encountered, 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**
50-100 feet	Chloride **	EPA 300.0 or SM4500 CIB	10,000 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 08, 2020, it was discovered that a leak had developed on the water transfer line causing the release of 12 barrels (bbls) of produced water onto the well pad behind the heater treater containment. Of the 12 bbls released, 0 bbls were recovered.

Site Assessment and Remediation Activities

H&R mobilized personnel to begin site assessment, sampling, and remediation activities of the release area. Grab samples were obtained by way of drilling 2 sampling bore holes. Samples collected were transported to Cardinal Laboratories for analysis. The results of that analysis are presented in the following data table. Initial site assessment sampling and excavation locations are illustrated on Site Assessment Map, [Appendix I](#). Before, during, and after photographs of the location are attached in [Appendix IV](#). Complete laboratory reports can be found in [Appendix V](#).

Table 1: Initial Soil Samples Analysis

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	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	10,000 mg/kg
BH-1	5/3/2023	0-1'	ND	ND	ND	ND	ND	0	15600
		2'	ND	ND	ND	ND	ND	0	208
		3'	ND	ND	ND	ND	ND	0	304
		4'	ND	ND	ND	ND	ND	0	368
BH-2	5/3/2023	0-1'	ND	ND	ND	2830	1300	4130	208
		2'	ND	ND	ND	ND	ND	0	256
		3'	ND	ND	ND	ND	ND	0	192
		4'	ND	ND	ND	ND	ND	0	352
H-1	5/3/2023	0-1'	ND	ND	ND	ND	ND	0	ND
H-2	5/3/2023	0-1'	ND	ND	ND	ND	ND	0	80
H-3	5/3/2023	0-1'	ND	ND	ND	ND	ND	0	192
H-4	5/3/2023	0-1'	ND	ND	ND	ND	ND	0	288
ND = Analyte Not Detected BH = Vertical Bore Hole Sample H = Horizontal Sample									

Based on the results of our site assessment and upon client authorization, excavation activities of the impacted area commenced. Confirmation samples were collected to confirm that NMOCD closure criteria had been met, the results of which can be found in the following data table. Confirmation sample locations and excavation dimensions can be found on Confirmation Sample Map in [Appendix I](#). Complete laboratory reports are attached in [Appendix V](#).

Table 2: Confirmation Soil Sample Analysis

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	1000 mg/kg		2500 mg/kg	2500 mg/kg	10,000 mg/kg
S-1	6/15/2023	1.5'	ND	ND	ND	196	135	331	128
SW-1	6/15/2023	1.5'	ND	ND	ND	188	124	312	96
	6/22/2023	1.5'	ND	ND	ND	ND	ND	0	ND
SW-2	6/15/2023	1.5'	ND	ND	ND	204	151	355	128
	6/22/2023	1.5'	ND	ND	ND	ND	ND	0	ND
SW-3	6/15/2023	1.5'	ND	ND	ND	257	204	461	112
	6/22/2023	1.5'	ND	ND	ND	ND	ND	0	ND
SW-4	6/15/2023	1.5'	ND	ND	ND	329	274	603	128
	6/22/2023	1.5'	ND	ND	ND	ND	ND	0	ND

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

Remedial Actions

- The impacted area in the vicinity of sample point S-1 was excavated to a total depth of 1.5-feet BGS.
- Composite confirmation samples were obtained from the sidewalls and bottom of the excavated area to verify that all contaminants above closure criteria had been removed. Sidewall excavations continued at a depth of 1.5-feet BGS until closure criteria was met.
- All the excavated material (20yds) was hauled to Lea Land, a NMOCD approved solid waste disposal facility.
- The excavated area on the well pad were backfilled with new caliche at depth and brought to grade, machine compacted and contoured to match the surrounding location.
- The Final C-141 formally documenting the remedial actions is attached in [Appendix III](#).

Closure

Based on the site assessment, remedial actions and confirmation sampling 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 be granted.

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

Respectfully submitted,

H&R Enterprises, LLC

Michael Collier

Michael Collier
Environmental Project Manager

Attachments:

Appendix I Site Maps
Appendix II Soil Survey, Groundwater Data
Appendix III Initial and Final C-141
Appendix IV Photographic Documentation
Appendix V Laboratory Reports

APPENDIX I

SITE MAPS

KARST MAP




TOPOGRAPHIC MAP

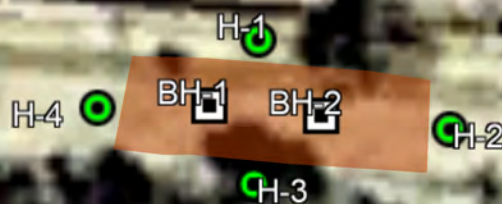
LOCATOR MAP

Chief 30 State #001

Cimarex Energy Co.
Incident# NRM2025346674
Lea County, NM
Site Assessment Map

Legend



-  Horizontal Sample Point
-  Release Area
-  Vertical Bore Hole Sample Point



Chief 30 State #001

Cimarex Energy Co.
Incident# NRM2025346674
Lea County, NM
Confirmation Sample Map

Legend

-  1.5ft. Excavation
-  Composite Confirmation Sample





SW-2
SW-1 S-1 SW-3
SW-4

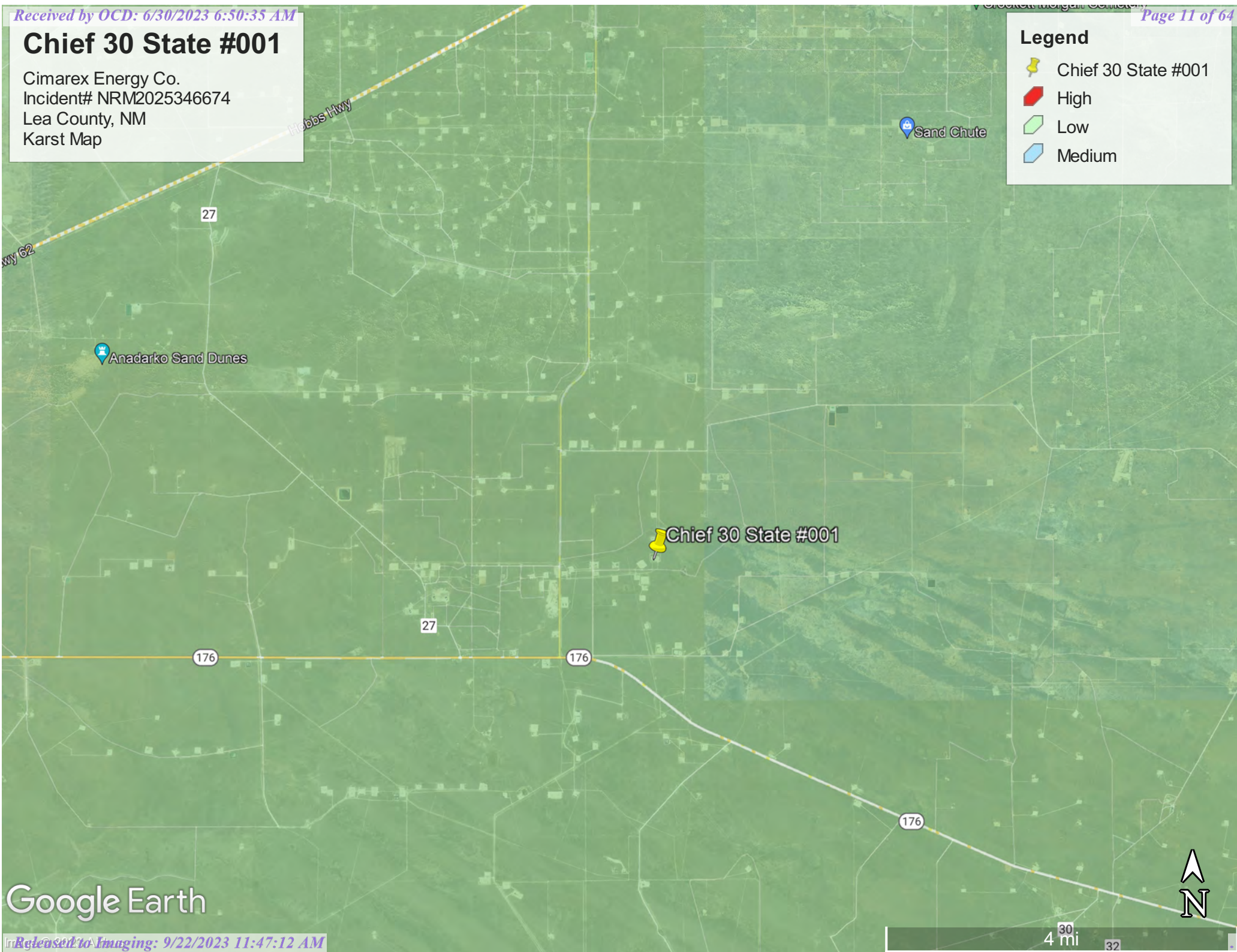


Chief 30 State #001

Cimarex Energy Co.
Incident# NRM2025346674
Lea County, NM
Karst Map

Legend

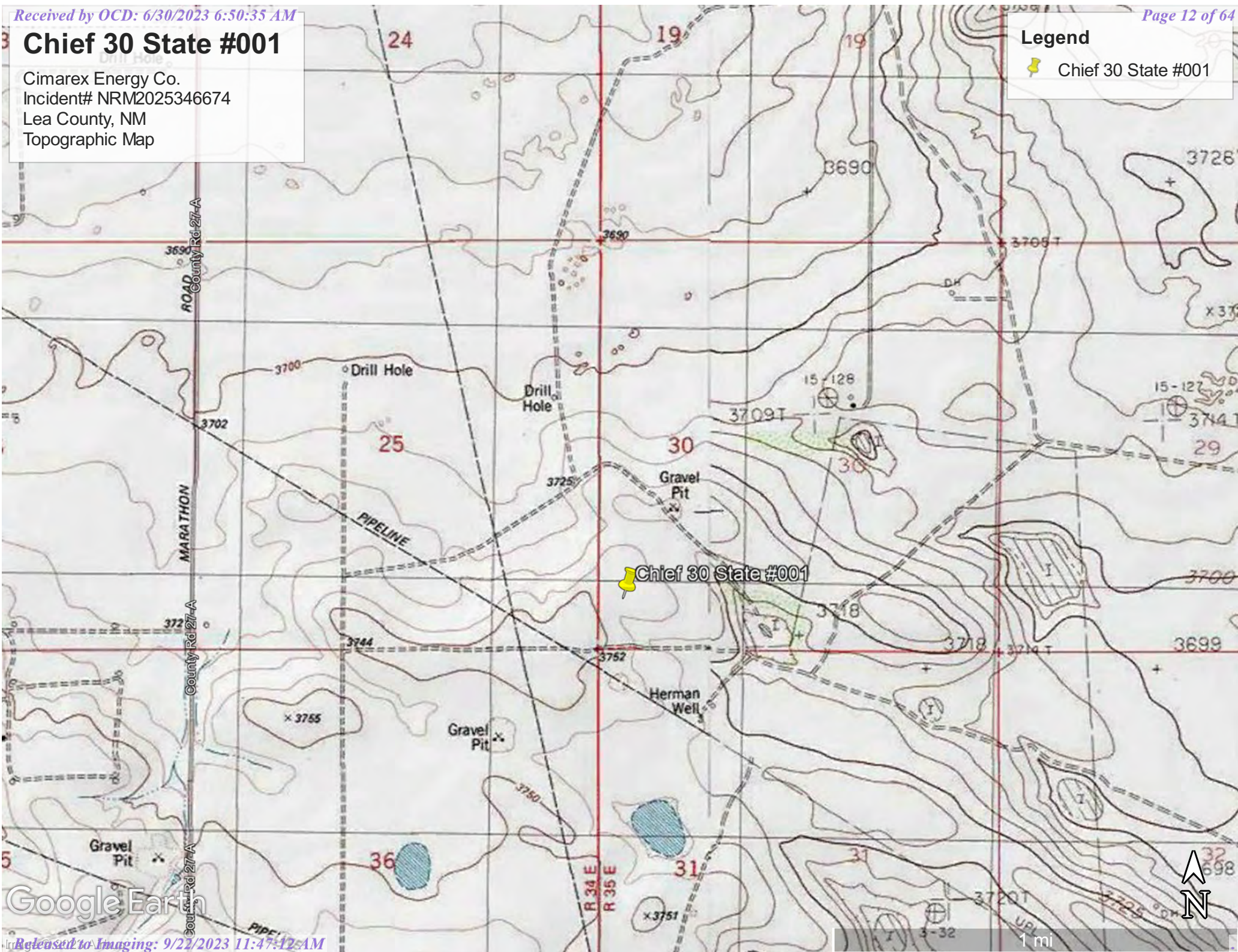
-  Chief 30 State #001
-  High
-  Low
-  Medium



Google Earth

Cimarex Energy Co.
Incident# NRM2025346674
Lea County, NM
Topographic Map


📌 Chief 30 State #001

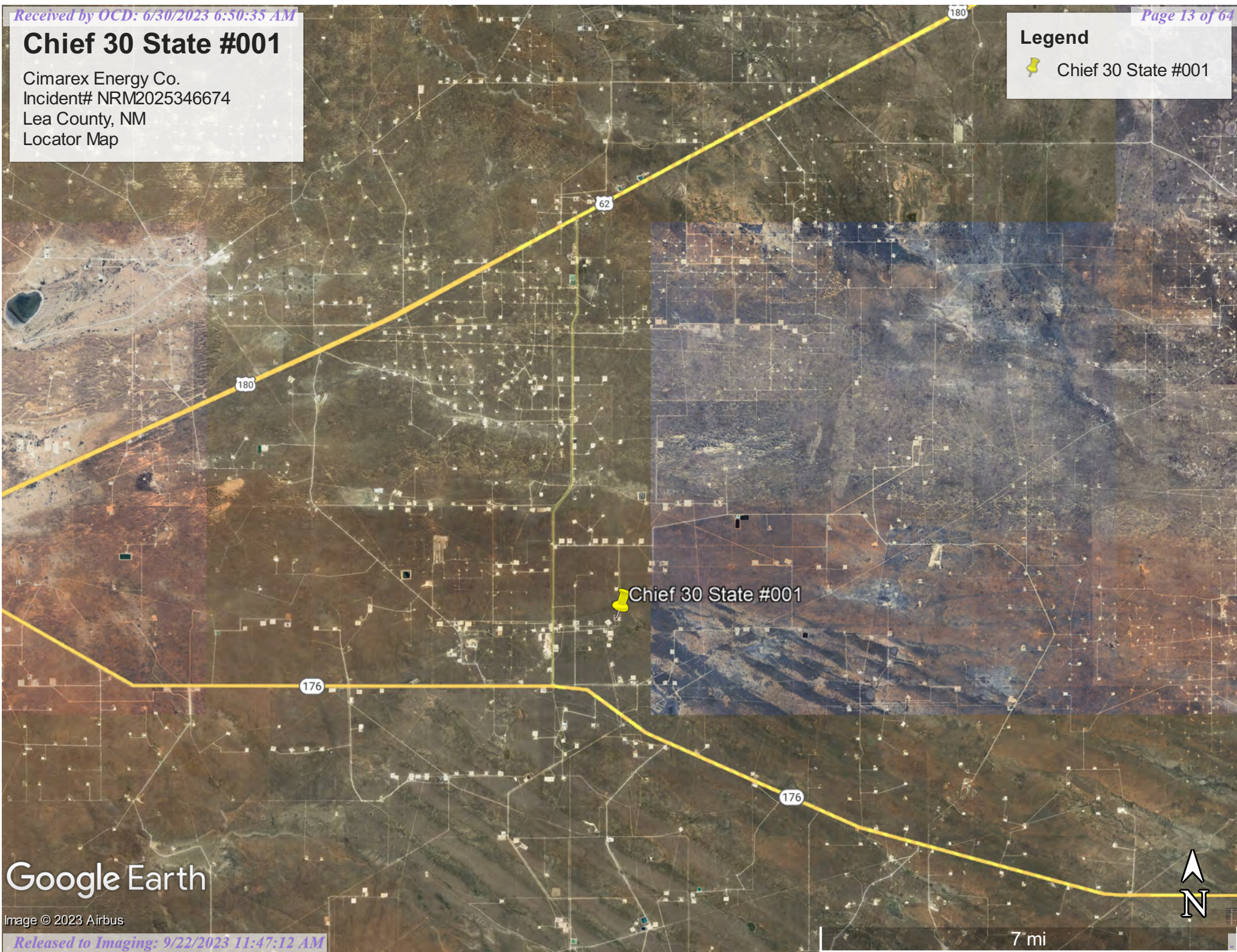


Chief 30 State #001

Cimarex Energy Co.
Incident# NRM2025346674
Lea County, NM
Locator Map

Legend

 Chief 30 State #001



Google Earth

Image © 2023 Airbus

APPENDIX II

GROUNDWATER DATA

SOIL SURVEY

WATER BORE MAP

SOIL BORE LOG



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

(R=POD has been replaced,
O=orphaned,
C=the file is closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
CP 01204 POD1		CP	LE	3	1	1	25	20S	34E	638755	3602250	<input type="checkbox"/>	2048	370	
CP 00665		CP	LE		1	4	24	20S	34E	639740	3603128*	<input type="checkbox"/>	2128	698	270 428
CP 01334 POD1		CP	LE	1	2	4	35	20S	34E	638402	3599879	<input type="checkbox"/>	2414	1253	733 520
CP 01335 POD1		CP	LE	4	1	4	35	20S	34E	638205	3599736	<input type="checkbox"/>	2657	1307	735 572
CP 00611		CP	LE		2	1	06	21S	34E	639838	3598306*	<input type="checkbox"/>	2891	118	112 6

Average Depth to Water: **462 feet**

Minimum Depth: **112 feet**

Maximum Depth: **735 feet**

Record Count: 5

Basin/County Search:

County: Lea

UTM NAD83 Radius Search (in meters):

Easting (X): 640469.26

Northing (Y): 3601128.24

Radius: 3000

*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.

6/29/23 8:39 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Map Unit Description: Kimbrough gravelly loam, dry, 0 to 3 percent slopes---Lea County, New Mexico

Lea County, New Mexico

KO—Kimbrough gravelly loam, dry, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tw43

Elevation: 2,500 to 4,800 feet

Mean annual precipitation: 14 to 16 inches

Mean annual air temperature: 57 to 63 degrees F

Frost-free period: 180 to 220 days

Farmland classification: Not prime farmland

Map Unit Composition

Kimbrough, dry, and similar soils: 80 percent

Minor components: 20 percent

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

Description of Kimbrough, Dry

Setting

Landform: Playa rims, plains

Down-slope shape: Convex, linear

Across-slope shape: Concave, linear

Parent material: Loamy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 3 inches: gravelly loam

Bw - 3 to 10 inches: loam

Bkkm1 - 10 to 16 inches: cemented material

Bkkm2 - 16 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 4 to 18 inches to petrocalcic

Drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 95 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 1.0

Available water supply, 0 to 60 inches: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Map Unit Description: Kimbrough gravelly loam, dry, 0 to 3 percent slopes---Lea County, New Mexico

Hydrologic Soil Group: D
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Hydric soil rating: No

Minor Components

Eunice

Percent of map unit: 10 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Hydric soil rating: No

Spraberry

Percent of map unit: 6 percent
Landform: Playa rims, plains
Down-slope shape: Convex, linear
Across-slope shape: Linear
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Hydric soil rating: No

Kenhill

Percent of map unit: 4 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077DY038TX - Clay Loam 12-17" PZ
Hydric soil rating: No

Data Source Information

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 19, Sep 8, 2022

Chief 30 State #001

Cimarex Energy Co.
Incident# NRM2025346674
Lea County, NM
Exploratory Water Bore Map

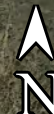
Legend

- 0.46-Miles
- Exploratory Water Bore

Chief 30 State #003H

Exploratory Water Bore

Chief 30 State #001



1000 ft

Google Earth

CARMONA RESOURCES



Project Name :	Chief 30 State #3H	Date :	Tuesday, August 30, 2022
Project No. :	1120	Sampler :	A. Thielke
Location :	Lea County, New Mexico	Driller :	Scarborough Drilling
Coordinates :	32.54596, -103.50371	Method :	Air Rotary
Elevation :			

Depth (ft.)	WL	Soil Description	Lithology	Depth (ft.)	WL	Soil Description	Lithology
0		Silty/Sand. Red/Light brown sand. Fine Grain, Dry Poorly Cemented		50		Dark Brown Silty Sand w/clay. Poorly Cemented Dry Sand. Fine Grain.	
5				55			
10				60		TD: 55'	
15				65			
20				70			
25		Fine Grain Sand w/ 30% Caliche/Gravels. Pinkish/Red Sand. Medium/Coarse Grain Caliche. Well Sorted		75			
27		White. Coarse grained caliche gravel (80%) w/ silty sand (20%). Well Sorted		80			
30		Medium grained sand w/ gravel fragments. Light brown/red. Well Sorted.		85			
35		Brown/ Red Dry Silty/ Sand. Very Fine Grain.		90			
40				95			
45		Fine Grain Sand w/ 30% Caliche/Gravels. Brown/Red Sand. Medium/Coarse Grain Caliche. Well Sorted and poorly cemented		100			
50				105			

Comments : Boring terminated at 55' at 15:00 Central Time with no presence of groundwater or moisture, checked for moisture on 9/7/2022. No moisture present.

APPENDIX III

INITIAL C-141

FINAL C-141

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

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NRM2025346674
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 32.538341 Longitude -103.504464
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Chief 30 State	Site Type: Battery
Date Release Discovered: 8/29/2020	API# (if applicable)

Unit Letter	Section	Township	Range	County
M	30	20S	35E	Lea

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) 12	Volume Recovered (bbls) 0
	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: Corrosion

A leak developed on the water transfer line causing a release of 12 barrels of produced water and we were unable to recover any fluid. The impacted soil will be delineated to determine pathway forward.

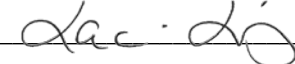
State of New Mexico
Oil Conservation Division

Incident ID	NRM2025346674
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
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: EMNRD OCD District 1, Cristina Eads, Victoria Venegas and RMann at SLO By: Email	

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: 9/4/2020
email: llui@cimarex.com	Telephone: (432) 571-7810
<u>OCD Only</u>	
Received by:	Date:

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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?	_____ (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal 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 type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☐ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☐ Data table of soil contaminant concentration data
- ☐ Depth to water determination
- ☐ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☐ Topographic/Aerial maps
- ☐ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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: _____ Title: _____
Signature: *Shelly Wells* Date: _____
email: _____ Telephone: _____

OCD Only

Received by: Shelly Wells Date: 6/30/2023

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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 (electronic submittals in .pdf format are preferred) 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.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☐ Description of remediation activities

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.

Printed Name: _____ Title: _____

Signature:  Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Shelly Wells Date: 6/30/2023

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by:  Date: 09/22/2023

Printed Name: Nelson Velez Title: Environmental Specialist - Adv

From: [Laci Luig](#)
To: [NMOCD Spill Notifications](#)
Cc: [Ashton Thielke](#); [Jim Hawley](#); [Michael Collier](#)
Subject: nRM2025346674 Chief 30 State CTB sample notification
Date: Wednesday, June 7, 2023 12:51:03 PM

Good afternoon,

This email serves as notification for confirmation sampling on the Chief 30 State Com battery. Excavation and confirmation sampling is scheduled to begin as early as Thursday, June 15th, weather and soil conditions permitting. H&R Enterprises will be onsite to collect the confirmation samples.

Coordinates: 32.53869, -103.50417

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

ASSESSMENT PHOTOGRAPHS



PHOTOGRAPHIC DOCUMENTATION

EXCAVATION PHOTOGRAPHS



PHOTOGRAPHIC DOCUMENTATION

FINAL PHOTOGRAPHS



PHOTOGRAPHIC DOCUMENTATION

EXPLORATORY WATER BORE PHOTOGRAPH



Cimarex Energy
Chief 7H Water Bore
09/07/2022 11:00 AM
32 54602, -103 50371 (+20ft)
Unnamed Road, New Mexico, USA

APPENDIX V

LABORATORY REPORTS



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

May 09, 2023

MICHAEL COLLIER

H & R ENTERPRISES

1010 GAMBLIN ROAD

HOBBS, NM 88240

RE: CHIEF 30 ST #1 2020 (CHIEF 30)

Enclosed are the results of analyses for samples received by the laboratory on 05/04/23 13:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 05/04/2023
 Reported: 05/09/2023
 Project Name: CHIEF 30 ST #1 2020 (CHIEF 30)
 Project Number: NONE GIVEN
 Project Location: CIMAREX - LEA COUNTY, NM

Sampling Date: 05/03/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH - 1 0-1' (H232216-01)

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	05/05/2023	ND	1.94	96.8	2.00	3.58	
Toluene*	<0.050	0.050	05/05/2023	ND	1.98	99.1	2.00	4.57	
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	1.93	96.5	2.00	5.57	
Total Xylenes*	<0.150	0.150	05/05/2023	ND	5.99	99.9	6.00	5.25	
Total BTX	<0.300	0.300	05/05/2023	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	15600	16.0	05/05/2023	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	05/05/2023	ND	169	84.7	200	3.20	
DRO >C10-C28*	<10.0	10.0	05/05/2023	ND	166	83.0	200	0.997	
EXT DRO >C28-C36	<10.0	10.0	05/05/2023	ND					

Surrogate: 1-Chlorooctane 89.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.4 % 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: 05/04/2023
 Reported: 05/09/2023
 Project Name: CHIEF 30 ST #1 2020 (CHIEF 30)
 Project Number: NONE GIVEN
 Project Location: CIMAREX - LEA COUNTY, NM

Sampling Date: 05/03/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH - 1 2' (H232216-02)

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	05/05/2023	ND	1.94	96.8	2.00	3.58		
Toluene*	<0.050	0.050	05/05/2023	ND	1.98	99.1	2.00	4.57		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	1.93	96.5	2.00	5.57		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	5.99	99.9	6.00	5.25		
Total BTEx	<0.300	0.300	05/05/2023	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	208	16.0	05/05/2023	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	05/05/2023	ND	169	84.7	200	3.20	
DRO >C10-C28*	<10.0	10.0	05/05/2023	ND	166	83.0	200	0.997	
EXT DRO >C28-C36	<10.0	10.0	05/05/2023	ND					

Surrogate: 1-Chlorooctane 81.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.5 % 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: 05/04/2023
 Reported: 05/09/2023
 Project Name: CHIEF 30 ST #1 2020 (CHIEF 30)
 Project Number: NONE GIVEN
 Project Location: CIMAREX - LEA COUNTY, NM

Sampling Date: 05/03/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH - 1 3' (H232216-03)

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	05/05/2023	ND	1.94	96.8	2.00	3.58		
Toluene*	<0.050	0.050	05/05/2023	ND	1.98	99.1	2.00	4.57		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	1.93	96.5	2.00	5.57		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	5.99	99.9	6.00	5.25		
Total BTEx	<0.300	0.300	05/05/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	304	16.0	05/05/2023	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	05/05/2023	ND	169	84.7	200	3.20	
DRO >C10-C28*	<10.0	10.0	05/05/2023	ND	166	83.0	200	0.997	
EXT DRO >C28-C36	<10.0	10.0	05/05/2023	ND					

Surrogate: 1-Chlorooctane 89.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 05/04/2023
 Reported: 05/09/2023
 Project Name: CHIEF 30 ST #1 2020 (CHIEF 30)
 Project Number: NONE GIVEN
 Project Location: CIMAREX - LEA COUNTY, NM

Sampling Date: 05/03/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH - 1 4' (H232216-04)

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	05/05/2023	ND	1.94	96.8	2.00	3.58		
Toluene*	<0.050	0.050	05/05/2023	ND	1.98	99.1	2.00	4.57		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	1.93	96.5	2.00	5.57		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	5.99	99.9	6.00	5.25		
Total BTX	<0.300	0.300	05/05/2023	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	368	16.0	05/05/2023	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	05/05/2023	ND	169	84.7	200	3.20	
DRO >C10-C28*	<10.0	10.0	05/05/2023	ND	166	83.0	200	0.997	
EXT DRO >C28-C36	<10.0	10.0	05/05/2023	ND					

Surrogate: 1-Chlorooctane 84.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.3 % 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: 05/04/2023
 Reported: 05/09/2023
 Project Name: CHIEF 30 ST #1 2020 (CHIEF 30)
 Project Number: NONE GIVEN
 Project Location: CIMAREX - LEA COUNTY, NM

Sampling Date: 05/03/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH - 2 0-1' (H232216-05)

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	05/05/2023	ND	1.94	96.8	2.00	3.58		
Toluene*	<0.050	0.050	05/05/2023	ND	1.98	99.1	2.00	4.57		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	1.93	96.5	2.00	5.57		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	5.99	99.9	6.00	5.25		
Total BTEx	<0.300	0.300	05/05/2023	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	208	16.0	05/05/2023	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/05/2023	ND	169	84.7	200	3.20	
DRO >C10-C28*	2830	10.0	05/05/2023	ND	166	83.0	200	0.997	
EXT DRO >C28-C36	1300	10.0	05/05/2023	ND					

Surrogate: 1-Chlorooctane 88.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 171 % 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: 05/04/2023
 Reported: 05/09/2023
 Project Name: CHIEF 30 ST #1 2020 (CHIEF 30)
 Project Number: NONE GIVEN
 Project Location: CIMAREX - LEA COUNTY, NM

Sampling Date: 05/03/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH - 2 2' (H232216-06)

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	05/05/2023	ND	1.94	96.8	2.00	3.58		
Toluene*	<0.050	0.050	05/05/2023	ND	1.98	99.1	2.00	4.57		
Ethylbenzene*	<0.050	0.050	05/05/2023	ND	1.93	96.5	2.00	5.57		
Total Xylenes*	<0.150	0.150	05/05/2023	ND	5.99	99.9	6.00	5.25		
Total BTEX	<0.300	0.300	05/05/2023	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	256	16.0	05/05/2023	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	05/08/2023	ND	169	84.7	200	3.20	
DRO >C10-C28*	<10.0	10.0	05/08/2023	ND	166	83.0	200	0.997	
EXT DRO >C28-C36	<10.0	10.0	05/08/2023	ND					

Surrogate: 1-Chlorooctane 72.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 05/04/2023
 Reported: 05/09/2023
 Project Name: CHIEF 30 ST #1 2020 (CHIEF 30)
 Project Number: NONE GIVEN
 Project Location: CIMAREX - LEA COUNTY, NM

Sampling Date: 05/03/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH - 2 3' (H232216-07)

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	05/06/2023	ND	1.94	97.2	2.00	4.91	
Toluene*	<0.050	0.050	05/06/2023	ND	2.01	101	2.00	3.14	
Ethylbenzene*	<0.050	0.050	05/06/2023	ND	1.94	97.2	2.00	3.24	
Total Xylenes*	<0.150	0.150	05/06/2023	ND	6.09	101	6.00	2.10	
Total BTEx	<0.300	0.300	05/06/2023	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	192	16.0	05/05/2023	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	05/05/2023	ND	169	84.7	200	3.20	
DRO >C10-C28*	<10.0	10.0	05/05/2023	ND	166	83.0	200	0.997	
EXT DRO >C28-C36	<10.0	10.0	05/05/2023	ND					

Surrogate: 1-Chlorooctane 83.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.2 % 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: 05/04/2023
 Reported: 05/09/2023
 Project Name: CHIEF 30 ST #1 2020 (CHIEF 30)
 Project Number: NONE GIVEN
 Project Location: CIMAREX - LEA COUNTY, NM

Sampling Date: 05/03/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH - 2 4' (H232216-08)

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	05/06/2023	ND	1.94	97.2	2.00	4.91		
Toluene*	<0.050	0.050	05/06/2023	ND	2.01	101	2.00	3.14		
Ethylbenzene*	<0.050	0.050	05/06/2023	ND	1.94	97.2	2.00	3.24		
Total Xylenes*	<0.150	0.150	05/06/2023	ND	6.09	101	6.00	2.10		
Total BTEx	<0.300	0.300	05/06/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 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	352	16.0	05/05/2023	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	05/05/2023	ND	169	84.7	200	3.20	
DRO >C10-C28*	<10.0	10.0	05/05/2023	ND	166	83.0	200	0.997	
EXT DRO >C28-C36	<10.0	10.0	05/05/2023	ND					

Surrogate: 1-Chlorooctane 66.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 71.9 % 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: 05/04/2023
 Reported: 05/09/2023
 Project Name: CHIEF 30 ST #1 2020 (CHIEF 30)
 Project Number: NONE GIVEN
 Project Location: CIMAREX - LEA COUNTY, NM

Sampling Date: 05/03/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: H - 1 0-1' (H232216-09)

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	05/06/2023	ND	1.94	97.2	2.00	4.91		
Toluene*	<0.050	0.050	05/06/2023	ND	2.01	101	2.00	3.14		
Ethylbenzene*	<0.050	0.050	05/06/2023	ND	1.94	97.2	2.00	3.24		
Total Xylenes*	<0.150	0.150	05/06/2023	ND	6.09	101	6.00	2.10		
Total BTEx	<0.300	0.300	05/06/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 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	05/05/2023	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	05/05/2023	ND	169	84.7	200	3.20	
DRO >C10-C28*	<10.0	10.0	05/05/2023	ND	166	83.0	200	0.997	
EXT DRO >C28-C36	<10.0	10.0	05/05/2023	ND					

Surrogate: 1-Chlorooctane 78.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.7 % 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: 05/04/2023
 Reported: 05/09/2023
 Project Name: CHIEF 30 ST #1 2020 (CHIEF 30)
 Project Number: NONE GIVEN
 Project Location: CIMAREX - LEA COUNTY, NM

Sampling Date: 05/03/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: H - 2 0-1' (H232216-10)

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	05/06/2023	ND	1.94	97.2	2.00	4.91		
Toluene*	<0.050	0.050	05/06/2023	ND	2.01	101	2.00	3.14		
Ethylbenzene*	<0.050	0.050	05/06/2023	ND	1.94	97.2	2.00	3.24		
Total Xylenes*	<0.150	0.150	05/06/2023	ND	6.09	101	6.00	2.10		
Total BTEx	<0.300	0.300	05/06/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 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	80.0	16.0	05/05/2023	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	05/05/2023	ND	169	84.7	200	3.20	
DRO >C10-C28*	<10.0	10.0	05/05/2023	ND	166	83.0	200	0.997	
EXT DRO >C28-C36	<10.0	10.0	05/05/2023	ND					

Surrogate: 1-Chlorooctane 85.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.1 % 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: 05/04/2023
 Reported: 05/09/2023
 Project Name: CHIEF 30 ST #1 2020 (CHIEF 30)
 Project Number: NONE GIVEN
 Project Location: CIMAREX - LEA COUNTY, NM

Sampling Date: 05/03/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: H - 3 0-1' (H232216-11)

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	05/06/2023	ND	1.94	97.2	2.00	4.91		
Toluene*	<0.050	0.050	05/06/2023	ND	2.01	101	2.00	3.14		
Ethylbenzene*	<0.050	0.050	05/06/2023	ND	1.94	97.2	2.00	3.24		
Total Xylenes*	<0.150	0.150	05/06/2023	ND	6.09	101	6.00	2.10		
Total BTEx	<0.300	0.300	05/06/2023	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	192	16.0	05/05/2023	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	05/05/2023	ND	169	84.7	200	3.20	
DRO >C10-C28*	<10.0	10.0	05/05/2023	ND	166	83.0	200	0.997	
EXT DRO >C28-C36	<10.0	10.0	05/05/2023	ND					

Surrogate: 1-Chlorooctane 89.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.8 % 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: 05/04/2023
 Reported: 05/09/2023
 Project Name: CHIEF 30 ST #1 2020 (CHIEF 30)
 Project Number: NONE GIVEN
 Project Location: CIMAREX - LEA COUNTY, NM

Sampling Date: 05/03/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: H - 4 0-1' (H232216-12)

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	05/06/2023	ND	1.94	97.2	2.00	4.91		
Toluene*	<0.050	0.050	05/06/2023	ND	2.01	101	2.00	3.14		
Ethylbenzene*	<0.050	0.050	05/06/2023	ND	1.94	97.2	2.00	3.24		
Total Xylenes*	<0.150	0.150	05/06/2023	ND	6.09	101	6.00	2.10		
Total BTEx	<0.300	0.300	05/06/2023	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	288	16.0	05/05/2023	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	05/05/2023	ND	169	84.7	200	3.20	
DRO >C10-C28*	<10.0	10.0	05/05/2023	ND	166	83.0	200	0.997	
EXT DRO >C28-C36	<10.0	10.0	05/05/2023	ND					

Surrogate: 1-Chlorooctane 74.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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: Cimarex																			
City:		State:		Zip:		Attn: Laci Luig																	
Phone #:		Fax #:		Address:																			
Project #:		Project Owner: Cimarex Energy		City:																			
Project Name: Chief 30 St. #1 2020 (Chief)				State:																Zip:			
Project Location: Lea County, NM				Phone #:																			
Sampler Name: R. Bell				Fax #:																			
FOR LAB USE ONLY Lab I.D.				MATRIX				PRESERV.				SAMPLING											
				GROUNDWATER				ICE / COOL				DATE											
				WASTEWATER				OTHER: ACID/BASE				TIME											
				SOIL				OTHER: ICE / COOL				BTX											
				SLUDGE								TPH											
												Chlorides											
1 BH-1 0-1'				G 1				X				5-3-23											
2 BH-1 2'																							
3 BH-1 3'																							
4 BH-1 4'																							
5 BH-2 0-1'																							
6 BH-2 2'																							
7 BH-2 3'																							
8 BH-2 4'																							
9 H-1 0-1'				C																			
10 H-2 0-1'																							

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Relinquished By:	Date: 5-4-23	Received By:	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time: 1335		All Results are emailed. Please provide Email address:	
Relinquished By:	Date:	Received By:	REMARKS: Pg 1 of 2	
	Time:			
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C -1.4 Corrected Temp. °C -2.0	Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: (Initials) T.O.	Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Bacteria (only) Sample Condition Cool Intact <input type="checkbox"/> Observed Temp. °C
				Thermometer ID #113 Correction Factor -0.5°C <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No - Corrected Temp. °C

FORM-006 R 3.2 10/07/21

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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: Cimarex																															
City: State: Zip:		Attn: Laci Luig																															
Phone #: Fax #:		Address:																															
Project #: Project Owner: Cimarex Energy		City:																															
Project Name: Chief 30 St. #1 2020 (Chief)		State: Zip:																															
Project Location: Lea County, NM		Phone #:																															
Sampler Name: R. Bell		Fax #:																															
FOR LAB USE ONLY Lab I.D.		MATRIX		PRESERV.		SAMPLING																											
		GRAB OR (COMP.)		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER:		ACID/BASE:		ICE / COOL:		OTHER:		DATE		TIME		BTX		TPH		Chlorides	
H232214		C		1		X												X		5-3-23		1				X		X		X			
11 H-3 0-1'		C		1		X												X		1						X		X		X			
12 H-4 0-1'		C		1		X												X		1						X		X		X			

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Relinquished By:		Date: 5-4-23		Received By:		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Time: 1335		Time: 1335		Time: 1335		All Results are emailed. Please provide Email address:			
Relinquished By:		Date:		Received By:		REMARKS: Pg 2 of 2			
Time:		Time:		Time:		Turnaround Time: Standard <input type="checkbox"/> Bacteria (only) Sample Condition			
Delivered By: (Circle One)		Observed Temp. °C -1.4		Sample Condition Cool Intact		CHECKED BY: (Initials) TO		Thermometer ID #113	
Sampler - UPS - Bus - Other:		Corrected Temp. °C -2.0		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				Correction Factor -0.5°C	
								<input type="checkbox"/> Yes <input type="checkbox"/> No	
								<input type="checkbox"/> No <input type="checkbox"/> No Corrected Temp. °C	

FORM-006 R 3.2 10/07/21

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

June 20, 2023

MICHAEL COLLIER

H & R ENTERPRISES

1010 GAMBLIN ROAD

HOBBS, NM 88240

RE: CHIEF 30 ST #001

Enclosed are the results of analyses for samples received by the laboratory on 06/15/23 11:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at 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: 06/15/2023
 Reported: 06/20/2023
 Project Name: CHIEF 30 ST #001
 Project Number: (CHIEF)
 Project Location: CIMAREX -LEA COUNTY, NM

Sampling Date: 06/15/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: S - 1 1.5' (H233086-01)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/17/2023	ND	2.36	118	2.00	7.84	
Toluene*	0.101	0.050	06/17/2023	ND	2.30	115	2.00	5.53	GC-NC1
Ethylbenzene*	<0.050	0.050	06/17/2023	ND	2.32	116	2.00	4.26	
Total Xylenes*	<0.150	0.150	06/17/2023	ND	7.09	118	6.00	2.80	
Total BTX	<0.300	0.300	06/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 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	128	16.0	06/15/2023	ND	416	104	400	3.92	

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	06/17/2023	ND	168	83.8	200	2.27	
DRO >C10-C28*	196	10.0	06/17/2023	ND	176	88.0	200	5.39	
EXT DRO >C28-C36	135	10.0	06/17/2023	ND					

Surrogate: 1-Chlorooctane 82.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 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: 06/15/2023
 Reported: 06/20/2023
 Project Name: CHIEF 30 ST #001
 Project Number: (CHIEF)
 Project Location: CIMAREX -LEA COUNTY, NM

Sampling Date: 06/15/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW - 1 1.5' (H233086-02)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2023	ND	2.17	108	2.00	0.0524	
Toluene*	0.145	0.050	06/19/2023	ND	2.32	116	2.00	0.357	GC-NC1
Ethylbenzene*	<0.050	0.050	06/19/2023	ND	2.26	113	2.00	0.283	
Total Xylenes*	<0.150	0.150	06/19/2023	ND	6.86	114	6.00	0.177	
Total BTEx	<0.300	0.300	06/19/2023	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	96.0	16.0	06/15/2023	ND	416	104	400	3.92	

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	06/17/2023	ND	168	83.8	200	2.27	
DRO >C10-C28*	188	10.0	06/17/2023	ND	176	88.0	200	5.39	
EXT DRO >C28-C36	124	10.0	06/17/2023	ND					

Surrogate: 1-Chlorooctane 75.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.2 % 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: 06/15/2023
 Reported: 06/20/2023
 Project Name: CHIEF 30 ST #001
 Project Number: (CHIEF)
 Project Location: CIMAREX -LEA COUNTY, NM

Sampling Date: 06/15/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW - 2 1.5' (H233086-03)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2023	ND	2.17	108	2.00	0.0524	
Toluene*	0.194	0.050	06/19/2023	ND	2.32	116	2.00	0.357	GC-NC1
Ethylbenzene*	<0.050	0.050	06/19/2023	ND	2.26	113	2.00	0.283	
Total Xylenes*	<0.150	0.150	06/19/2023	ND	6.86	114	6.00	0.177	
Total BTEx	<0.300	0.300	06/19/2023	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	128	16.0	06/15/2023	ND	416	104	400	3.92	

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	06/17/2023	ND	168	83.8	200	2.27	
DRO >C10-C28*	204	10.0	06/17/2023	ND	176	88.0	200	5.39	
EXT DRO >C28-C36	151	10.0	06/17/2023	ND					

Surrogate: 1-Chlorooctane 82.6 % 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: 06/15/2023
 Reported: 06/20/2023
 Project Name: CHIEF 30 ST #001
 Project Number: (CHIEF)
 Project Location: CIMAREX -LEA COUNTY, NM

Sampling Date: 06/15/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW - 3 1.5' (H233086-04)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2023	ND	2.17	108	2.00	0.0524	
Toluene*	0.228	0.050	06/19/2023	ND	2.32	116	2.00	0.357	GC-NC1
Ethylbenzene*	<0.050	0.050	06/19/2023	ND	2.26	113	2.00	0.283	
Total Xylenes*	<0.150	0.150	06/19/2023	ND	6.86	114	6.00	0.177	
Total BTEX	<0.300	0.300	06/19/2023	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	112	16.0	06/15/2023	ND	416	104	400	3.92		

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	06/17/2023	ND	168	83.8	200	2.27	
DRO >C10-C28*	257	10.0	06/17/2023	ND	176	88.0	200	5.39	
EXT DRO >C28-C36	204	10.0	06/17/2023	ND					

Surrogate: 1-Chlorooctane 75.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 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: 06/15/2023
 Reported: 06/20/2023
 Project Name: CHIEF 30 ST #001
 Project Number: (CHIEF)
 Project Location: CIMAREX -LEA COUNTY, NM

Sampling Date: 06/15/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW - 4 1.5' (H233086-05)

BTX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/19/2023	ND	2.17	108	2.00	0.0524	
Toluene*	<0.050	0.050	06/19/2023	ND	2.32	116	2.00	0.357	
Ethylbenzene*	<0.050	0.050	06/19/2023	ND	2.26	113	2.00	0.283	
Total Xylenes*	<0.150	0.150	06/19/2023	ND	6.86	114	6.00	0.177	
Total BTX	<0.300	0.300	06/19/2023	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	128	16.0	06/15/2023	ND	416	104	400	3.92	

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	06/17/2023	ND	168	83.8	200	2.27	
DRO >C10-C28*	329	10.0	06/17/2023	ND	176	88.0	200	5.39	
EXT DRO >C28-C36	274	10.0	06/17/2023	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 134 % 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.
GC-NC1	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>H&R Enterprises</u>				BILL TO				ANALYSIS REQUEST											
Project Manager: <u>M. Collier</u>				P.O. #:															
Address:				Company: <u>Cimarex</u>															
City: State: Zip:				Attn: <u>Laci Luig</u>															
Phone #: Fax #:				Address:															
Project #: Project Owner:				City:															
Project Name: <u>Chief 30 St. #001 (chief)</u>				State: Zip:															
Project Location:				Phone #:															
Sampler Name: <u>R. Bell</u>				Fax #:															
FOR LAB USE ONLY																			
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX				PRESERV.		SAMPLING					
								GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:				ACID/BASE: ICE / COOL OTHER:		DATE		TIME			
<u>H233086</u>		<u>1.5'</u>		<u>C</u>		<u>1</u>		<u>X</u>				<u>X</u>		<u>6/15/23</u>					
<u>1 SW-1</u>		<u>1.5'</u>		<u>1</u>		<u>1</u>		<u>X</u>				<u>X</u>		<u>1</u>					
<u>2 SW-2</u>		<u>1</u>		<u>1</u>		<u>1</u>		<u>X</u>				<u>X</u>		<u>1</u>					
<u>3 SW-3</u>		<u>1</u>		<u>1</u>		<u>1</u>		<u>X</u>				<u>X</u>		<u>1</u>					
<u>4 SW-4</u>		<u>1</u>		<u>1</u>		<u>1</u>		<u>X</u>				<u>X</u>		<u>1</u>					
<u>5 SW-4</u>		<u>1</u>		<u>1</u>		<u>1</u>		<u>X</u>				<u>X</u>		<u>1</u>					

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Relinquished By: <u>R. Bell</u>		Date: <u>6-15</u> Time: <u>10:40</u>		Received By: <u>[Signature]</u>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Relinquished By:		Date: <u>6-15-23</u> Time: <u>11:30</u>		Received By: <u>[Signature]</u>		All Results are emailed. Please provide Email address:	
Delivered By: (Circle One)		Observed Temp. °C <u>6.2</u>		Sample Condition		REMARKS:	
Sampler - UPS - Bus - Other:		Corrected Temp. °C <u>5.6</u>		Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Turnaround Time: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush	
				CHECKED BY: (Initials) <u>yo</u>		Thermometer ID #113 Correction Factor -0.6°C <u>C</u>	
						Bacteria (only) Sample Condition Cool Intact Observed Temp. °C <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No Corrected Temp. °C	

FORM-006 R 3.3 07/18/22

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



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

June 27, 2023

MICHAEL COLLIER

H & R ENTERPRISES

1010 GAMBLIN ROAD

HOBBS, NM 88240

RE: CHIEF 30 ST #001

Enclosed are the results of analyses for samples received by the laboratory on 06/22/23 11:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at 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 "Mike Snyder". The signature is fluid and cursive, with the first name "Mike" and last name "Snyder" clearly distinguishable.

Mike Snyder For 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: 06/22/2023
 Reported: 06/27/2023
 Project Name: CHIEF 30 ST #001
 Project Number: (CHIEF)
 Project Location: CIMAREX -LEA COUNTY, NM

Sampling Date: 06/22/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW - 1 1.5' (H233236-01)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2023	ND	1.93	96.7	2.00	2.89	
Toluene*	<0.050	0.050	06/23/2023	ND	1.96	98.0	2.00	3.40	
Ethylbenzene*	<0.050	0.050	06/23/2023	ND	2.01	100	2.00	4.32	
Total Xylenes*	<0.150	0.150	06/23/2023	ND	5.97	99.5	6.00	4.58	
Total BTX	<0.300	0.300	06/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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	06/23/2023	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	192	96.1	200	2.65	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	189	94.7	200	2.68	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane 88.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.8 % 49.1-148

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Mike Snyder For 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: 06/22/2023
 Reported: 06/27/2023
 Project Name: CHIEF 30 ST #001
 Project Number: (CHIEF)
 Project Location: CIMAREX -LEA COUNTY, NM

Sampling Date: 06/22/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW - 2 1.5' (H233236-02)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2023	ND	1.93	96.7	2.00	2.89	
Toluene*	<0.050	0.050	06/23/2023	ND	1.96	98.0	2.00	3.40	
Ethylbenzene*	<0.050	0.050	06/23/2023	ND	2.01	100	2.00	4.32	
Total Xylenes*	<0.150	0.150	06/23/2023	ND	5.97	99.5	6.00	4.58	
Total BTEX	<0.300	0.300	06/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 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	06/23/2023	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	192	96.1	200	2.65	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	189	94.7	200	2.68	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane 72.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 72.2 % 49.1-148

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Mike Snyder For 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: 06/22/2023
 Reported: 06/27/2023
 Project Name: CHIEF 30 ST #001
 Project Number: (CHIEF)
 Project Location: CIMAREX -LEA COUNTY, NM

Sampling Date: 06/22/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW - 3 1.5' (H233236-03)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2023	ND	1.93	96.7	2.00	2.89	
Toluene*	<0.050	0.050	06/23/2023	ND	1.96	98.0	2.00	3.40	
Ethylbenzene*	<0.050	0.050	06/23/2023	ND	2.01	100	2.00	4.32	
Total Xylenes*	<0.150	0.150	06/23/2023	ND	5.97	99.5	6.00	4.58	
Total BTX	<0.300	0.300	06/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 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	06/23/2023	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	192	96.1	200	2.65	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	189	94.7	200	2.68	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane 56.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 55.9 % 49.1-148

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Mike Snyder For 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: 06/22/2023
 Reported: 06/27/2023
 Project Name: CHIEF 30 ST #001
 Project Number: (CHIEF)
 Project Location: CIMAREX -LEA COUNTY, NM

Sampling Date: 06/22/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW - 4 1.5' (H233236-04)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2023	ND	1.93	96.7	2.00	2.89	
Toluene*	<0.050	0.050	06/23/2023	ND	1.96	98.0	2.00	3.40	
Ethylbenzene*	<0.050	0.050	06/23/2023	ND	2.01	100	2.00	4.32	
Total Xylenes*	<0.150	0.150	06/23/2023	ND	5.97	99.5	6.00	4.58	
Total BTEX	<0.300	0.300	06/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	32.0	16.0	06/23/2023	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	192	96.1	200	2.65	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	189	94.7	200	2.68	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane 79.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.3 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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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 "Mike Snyder", is written over a horizontal line.

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



Relinquished By: <i>N. H. Bell</i>	Date: <i>6-22-23</i>	Received By: <i>[Signature]</i>	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
Relinquished By:	Time: <i>7:45</i>	Received By:	All Results are emailed. Please provide Email address:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Date:	REMARKS:	
	Time:		
Observed Temp. °C Corrected Temp. °C	Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: (Initials) <i>T.O.</i>	Turnaround Time: Standard <input checked="" type="checkbox"/> Bacteria (only) Sample Condition <i>Rush</i> <input type="checkbox"/> Cool Intact Observed Temp. °C Thermometer ID #113 Correction Factor -0.5°C
			<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No Corrected Temp. °C

FORM-006 R 3.2 10/07/21

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

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Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 234710

CONDITIONS

Operator: CIMAREX ENERGY CO. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 234710
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	9/22/2023