



SITE INFORMATION

Closure Report
Cuervo Federal #020H
Incident ID: NCH1830572329
Lea County, New Mexico
Unit A Sec 14 T23S R32E
32.314287°, -103.648751°

Point of Release:
Vehicular traffic created a gash in a 4" poly SWD line
Release Date: 10/24/2018
Volume Released: 20 Barrels of Produced Water
Volume Recovered: 5 Barrels of Produced Water

CARMONA RESOURCES



Prepared for:
Cimarex Energy Co.
600 N. Marienfeld Street
Suite 600
Midland, Texas 79701

Prepared by:
Carmona Resources, LLC
310 West Wall Street
Suite 500
Midland, Texas 79701



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April 25, 2023

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

Re: Closure Report
Cuervo Federal #020H
Cimarex Energy Co.
Site Location: Unit A, S14, T23S, R32E
(Lat 32.314287°, Long -103.648751°)
Lea County, New Mexico

To whom it may concern:

On behalf of Cimarex Energy Co. (Cimarex), Carmona Resources, LLC has prepared this letter to document site activities for Cuervo Federal 20H. The site is located at 32.314287°, -103.648751° within Unit A, S14, T23S, R32E, in Lea County, New Mexico (Figures 1 and 2).

1.0 Site Information and Background

Based on the initial C-141 obtained from the New Mexico Oil Conservation Division (NMOCD), the leak was discovered on October 24, 2018, caused by gash in the 4" poly SWD line created by vehicular traffic. It resulted in the release of approximately twenty (20) barrels of produced water, and five (5) barrels of produced water were recovered. The impacted area is located in the pasture. Refer to Figure 3 for a spill overview. The initial C-141 form is attached in Appendix C.

2.0 Site Characterization and Groundwater

The site is located within a low karst area. Based on a review of the New Mexico Office of State Engineers and USGS databases, no known water sources are within a 0.50-mile radius of the location. The nearest groundwater determination bore is located approximately 0.45 miles Southeast of the site in S14, T23S, R32E and was drilled in 2023 at 32.310922°, -103.644669°. The bore has shown no signs of water at a depth of 105' feet below ground surface (ft bgs). A copy of the groundwater determination bore log is attached in Appendix D.

3.0 NMAC Regulatory Criteria

Per the NMOCD regulatory criteria established in 19.15.29.12 NMAC, the following criteria were utilized in assessing the site.

- Benzene: 10 milligrams per kilogram (mg/kg).
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg.
- TPH: 1,000 mg/kg (GRO + DRO).
- TPH: 2,500 mg/kg (GRO + DRO + MRO).
- Chloride: 20,000 mg/kg

4.0 Site Assessment Activities

On March 16, 2023, Carmona Resources, LLC performed site assessment activities to evaluate soil impacts. To assess the vertical and horizontal extent, six (6) soil samples and five (5)



horizontal sample points were advanced to depths ranging from the surface to 3.0' below ground surface (bgs) inside the area of concern. See Figure 3 for the sample locations. For chemical analysis, the soil samples were collected and placed directly into laboratory-provided sample containers, stored on ice, and transported under the proper chain-of-custody protocol to Cardinal Laboratories in Hobbs, New Mexico. The samples were analyzed for total petroleum hydrocarbons (TPH) by EPA method 8015, modified benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021B, and chloride by EPA method 4500. The laboratory reports, including analytical methods, results, and chain-of-custody documents, are attached in Appendix E. Refer to Table 1.

5.0 Remediation Activities

Carmona Resources personnel were onsite to supervise the remediation activities, collect confirmation samples, and document backfill activities. Before collecting composite confirmation samples, the NMOCD division office was notified via email on April 13, 2023, per Subsection D of 19.15.29.12 NMAC. See Appendix C. The area of S-4 was excavated to a depth of 4.0' – 4.25' bgs. The area of S-6 was excavated to a depth of 1.0' – 1.25' bgs. A total of six (6) confirmation floor samples (CS-1 through CS-6) and eight (8) sidewall samples (SW-1 through SW-8) were collected every 200 square feet to ensure the proper removal of the contaminated soils. All collected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B, and chloride by EPA Method 4500. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix E. The excavation depths and confirmation sample locations are shown in Figure 4.

All final confirmation samples were below the reclamation and regulatory requirements for TPH, BTEX, and chloride. Refer to Table 2.

Once the remediation activities were completed, the excavated areas were backfilled with clean material to surface grade. Approximately 200 cubic yards of material were excavated and transported offsite for proper disposal.

6.0 Conclusions

Based on the assessment results and the analytical data, no further actions are required at the site. The final C-141 is attached, and Cimarex formally requests the closure of the spill. If you have any questions regarding this report or need additional information, please contact us at 432-813-1992.

Sincerely,

Carmona Resources, LLC

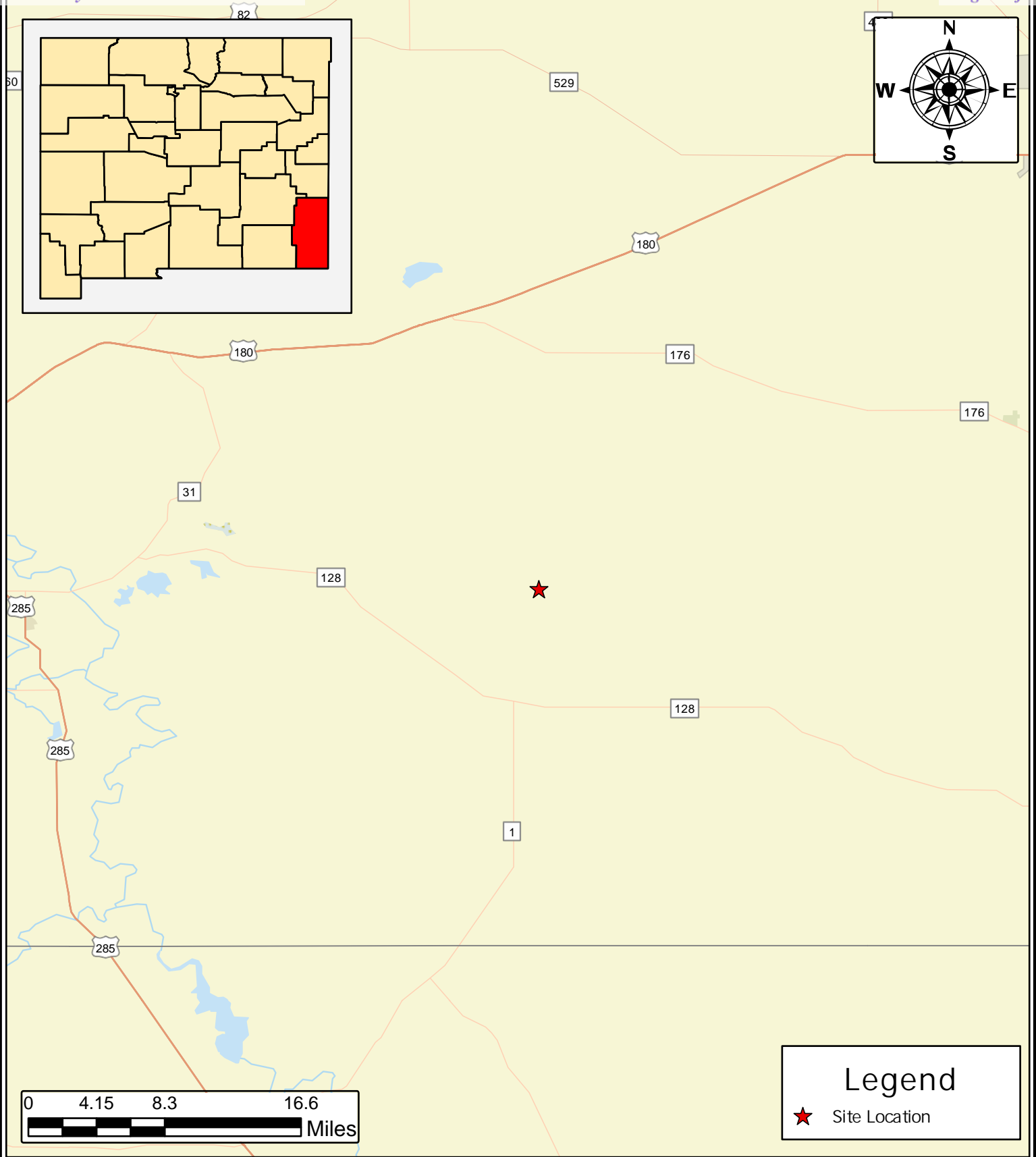
Ashton Thielke
Sr. Project Manager

Conner Moehring
Sr. Project Manager

FIGURES

CARMONA RESOURCES





OVERVIEW MAP
CIMAREX ENERGY CO.
CUERVO FEDERAL #020H
LEA COUNTY, NEW MEXICO
32.314287, -103.648751

SCALE: As Shown

Date: 4/23/2023



Carmona Resources
310 West Wall Street, Suite 500
Midland, Texas 79701

NOTES:

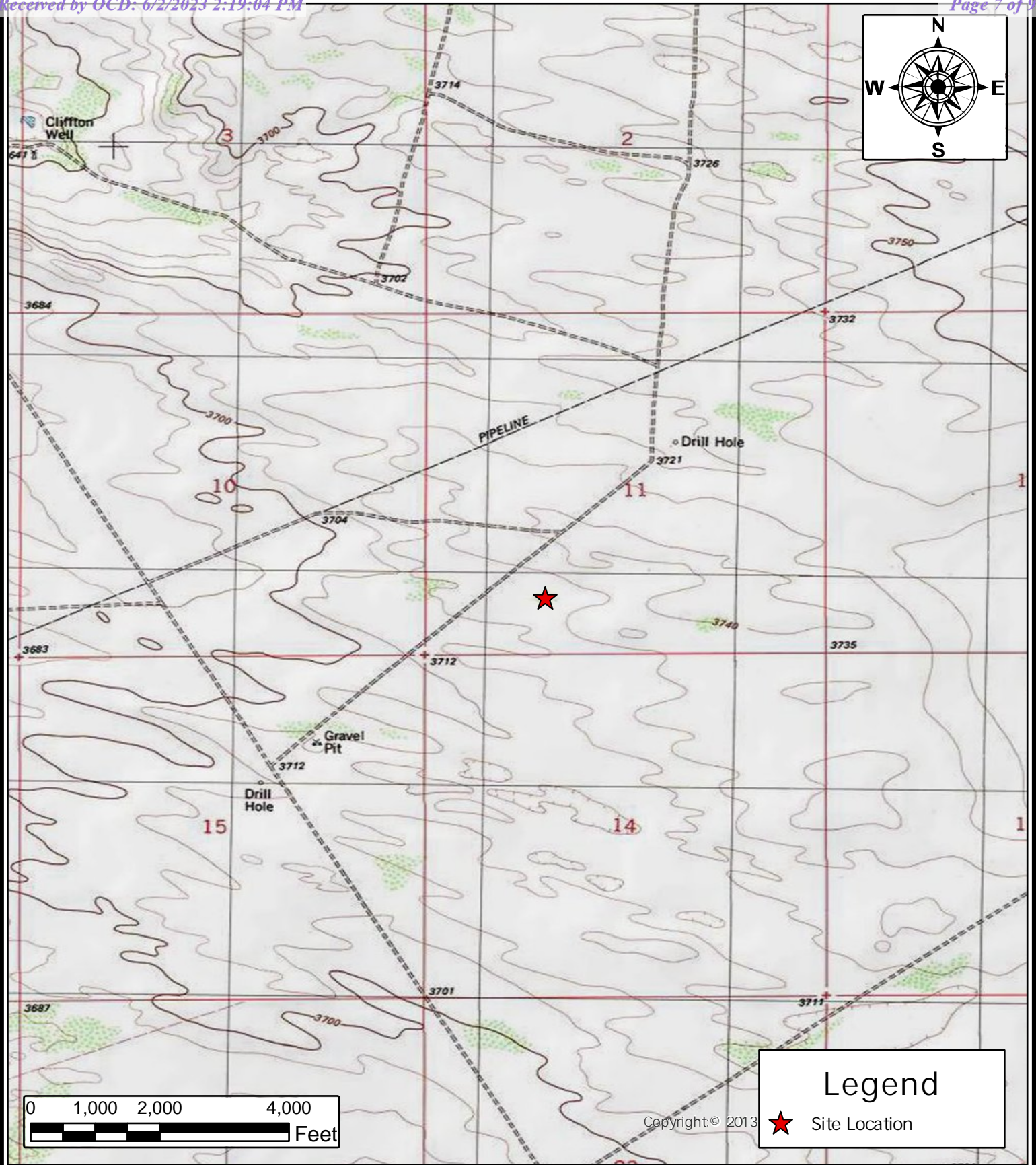
1. Base Image: ESRI Maps & Data 2023
2. Map Projection: WGS84

DRAWING NUMBER:


FIGURE 1

SHEET NUMBER:

1 of 1

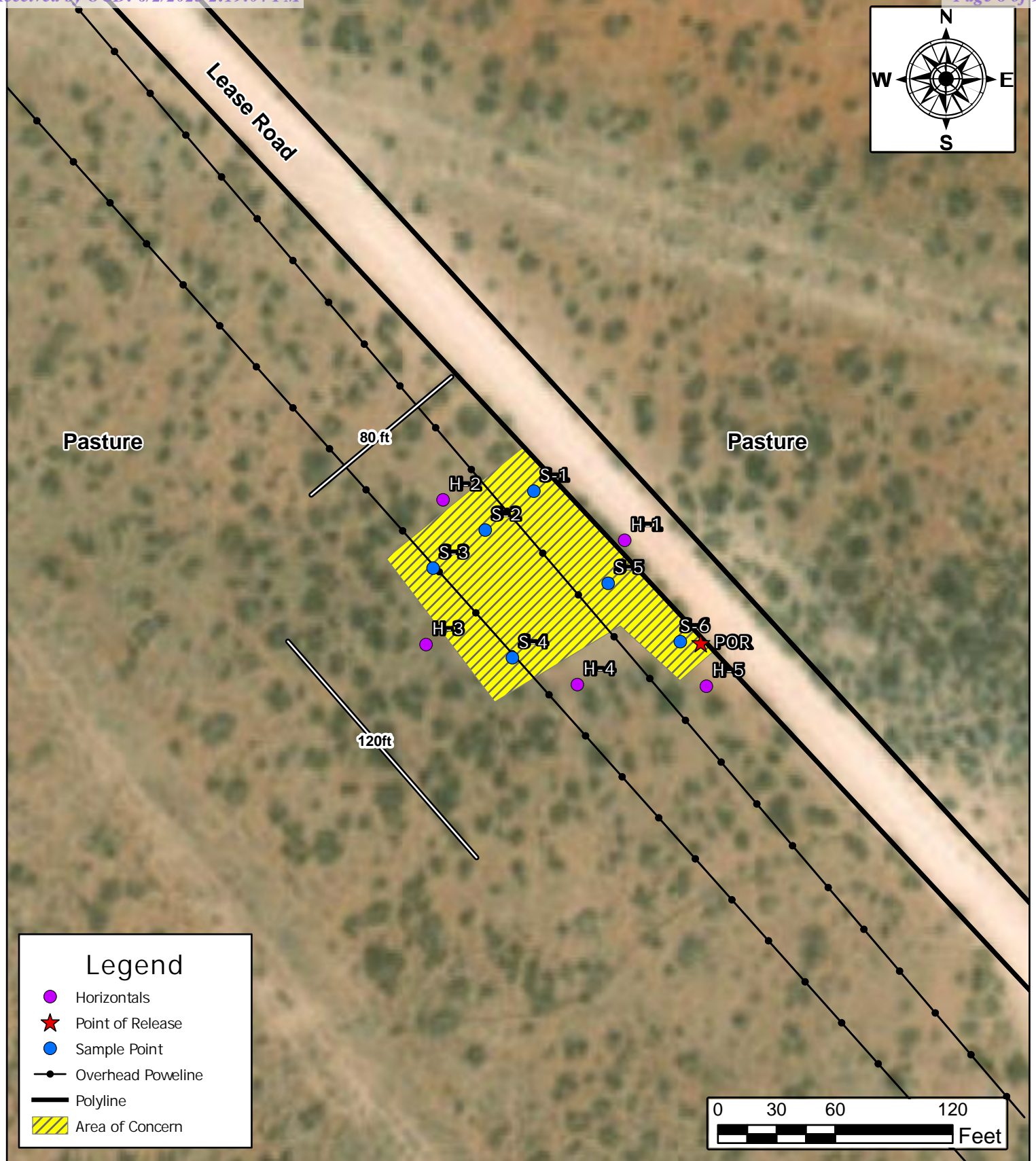


TOPOGRAPHIC MAP CIMAREX ENERGY CO. CUERVO FEDERAL #020H LEA COUNTY, NEW MEXICO 32.314287, -103.648751	
SCALE: As Shown	Date: 4/23/2023

 Carmona Resources 310 West Wall Street, Suite 500 Midland, Texas 79701
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NOTES: 1. Base Image: ESRI Maps & Data 2023 2. Map Projection: WGS84

DRAWING NUMBER: FIGURE 2
SHEET NUMBER: 1 of 1



SAMPLE LOCATION MAP
CIMAREX ENERGY CO.
 CUERVO FEDERAL #020H
 LEA COUNTY, NEW MEXICO
 32.314287, -103.648751

SCALE: As Shown

Date: 4/25/2023



Carmona Resources
 310 West Wall Street, Suite 500
 Midland, Texas 79701

NOTES:

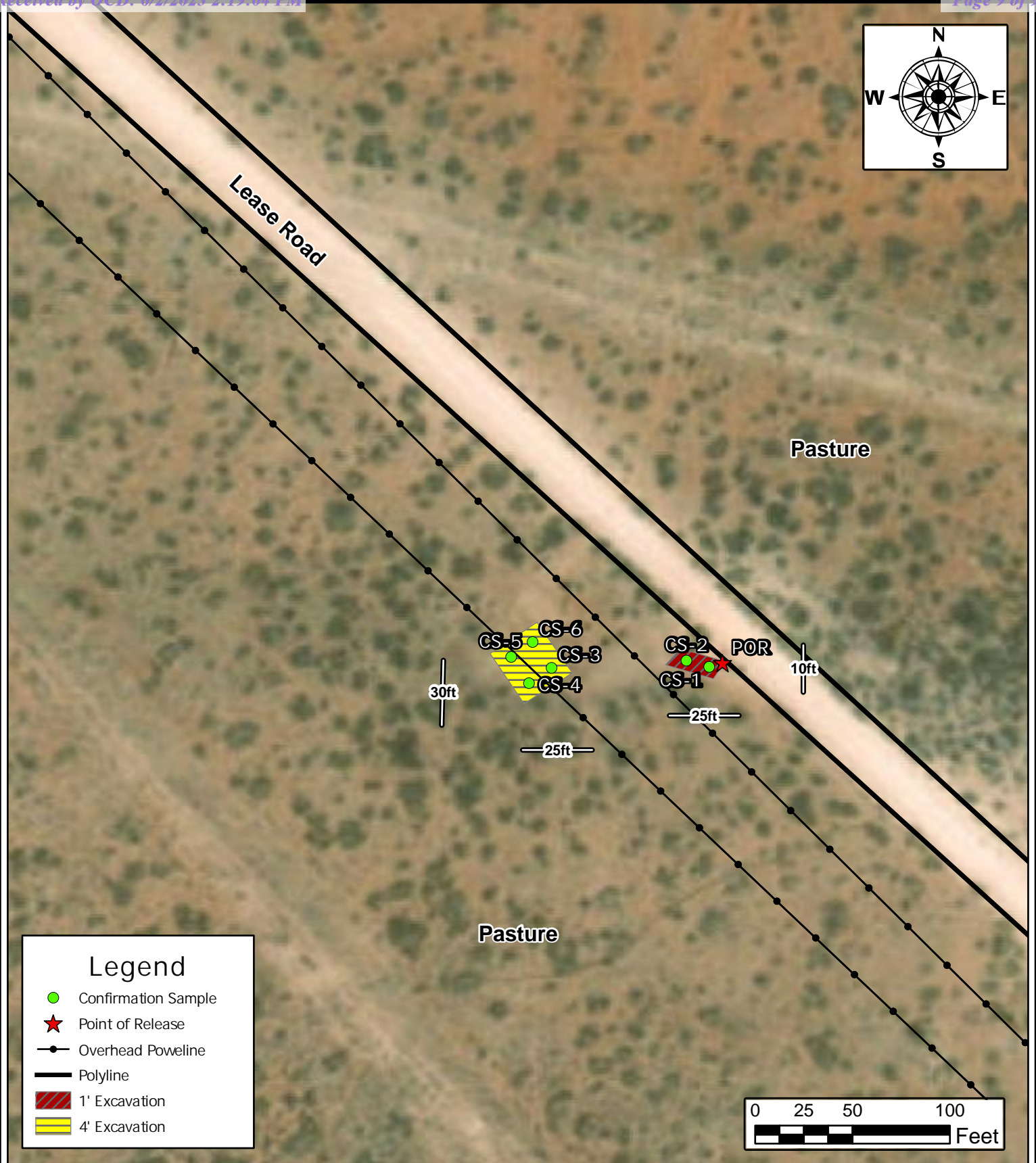
1. Base Image: Google Earth 2016
2. Map Projection: WGS84

DRAWING NUMBER:


FIGURE 3

SHEET NUMBER:

1 of 1

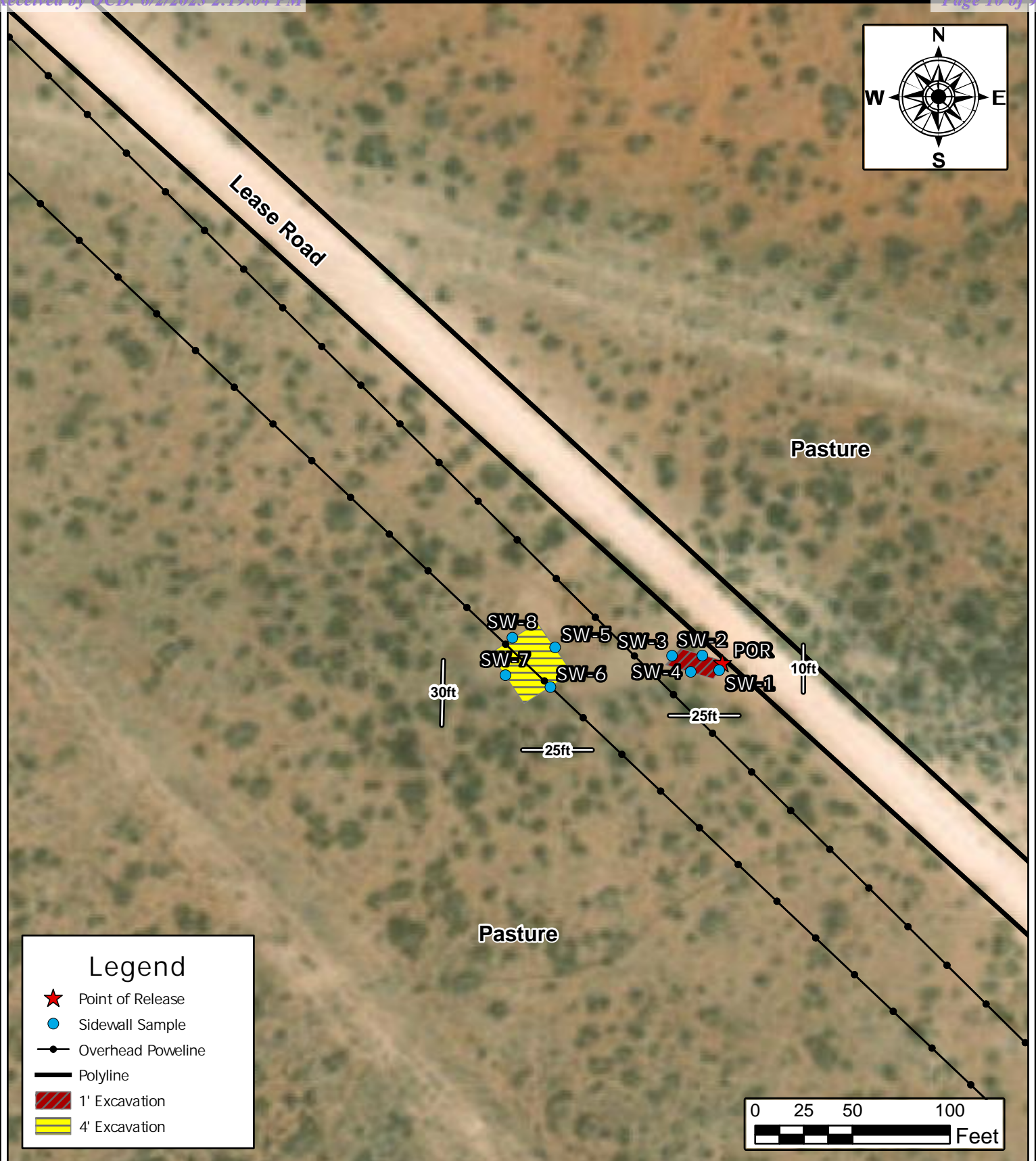


EXCAVATION DEPTH MAP CIMAREX ENERGY CO. CUERVO FEDERAL #020H LEA COUNTY, NEW MEXICO 32.314287, -103.648751	
SCALE: As Shown	Date: 4/25/2023

 Carmona Resources 310 West Wall Street, Suite 500 Midland, Texas 79701
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NOTES: 1. Base Image: ESRI Maps & Data 2023 2. Map Projection: WGS84

DRAWING NUMBER:
FIGURE 4A
SHEET NUMBER:
1 of 2



EXCAVATION DEPTH MAP
CIMAREX ENERGY CO.
 CUERVO FEDERAL #020H
 LEA COUNTY, NEW MEXICO
 32.314287, -103.648751

SCALE: As Shown

Date: 4/25/2023



Carmona Resources
 310 West Wall Street, Suite 500
 Midland, Texas 79701

NOTES:

1. Base Image: ESRI Maps & Data 2023
2. Map Projection: WGS84

DRAWING NUMBER:

FIGURE 4B

SHEET NUMBER:

2 of 2

APPENDIX A

CARMONA RESOURCES



Table 1
Cimarex Energy Co.
Cuervo Federal 20H (10.24.2018)
Lea County, New Mexico

Sample ID	Date	Depth (ft)	TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			GRO	DRO	MRO	Total						
S-1	3/16/2023	0-0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	48.0
	"	0.5'-1.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
S-2	3/16/2023	0-0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	48.0
	"	0.5'-1.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	96.0
	"	1.0'-1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	272
S-3	3/16/2023	0-0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	48.0
	"	0.5'-1.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	48.0
	"	1.0'-1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	64.0
S-4	3/16/2023	0-0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	480
	"	0.5'-1.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	928
	"	1.0'-1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	1,300
	"	1.5'-2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	1,580
	"	2.0'-3.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	1,500
S-5	3/16/2023	0-0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	96.0
	"	0.5'-1.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	208
S-6	3/16/2023	0-0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	1,170
	"	0.5'-1.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
	"	1.0'-1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	80.0
H-1	3/16/2023	0-0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	64.0
H-2	3/16/2023	0-0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
H-3	3/16/2023	0-0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
H-4	3/16/2023	0-0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
H-5	3/16/2023	0-0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	80.0
Regulatory Criteria^A			1,000 mg/kg			2,500 mg/kg	10 mg/kg	-	-	-	50 mg/kg	20,000 mg/kg

(-) Not Analyzed

^A – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram

TPH - Total Petroleum Hydrocarbons

ft - feet

(H) - Horizontal Sample

(S) - Sample Point

 Removed

Table 2
Cimarex Energy Co.
Cuervo Federal #020H (10.24.2018)
Lea County, New Mexico

Sample ID	Date	Depth (ft)	TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			GRO	DRO	MRO	Total						
CS-1	4/19/2023	1.0	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	704
	4/21/2023	1.25	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	400
CS-2	4/19/2023	1.0	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	112
CS-3	4/19/2023	4.0	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	992
	4/21/2023	4.25	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
CS-4	4/19/2023	4.0	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	48.0
CS-5	4/19/2023	4.0	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	272
CS-6	4/19/2023	4.0	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	32.0
SW-1	4/19/2023	1.0	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	592
SW-2	4/19/2023	1.0	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	48.0
SW-3	4/19/2023	1.0	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	432
SW-4	4/19/2023	1.0	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	272
SW-5	4/19/2023	4.0	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	480
SW-6	4/19/2023	4.0	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	128
SW-7	4/19/2023	4.0	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	432
SW-8	4/19/2023	4.0	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	448
Regulatory Criteria ^A			1,000 mg/kg			2,500 mg/kg	10 mg/kg				50 mg/kg	20,000 mg/kg

(-) Not Analyzed

^A – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram

TPH - Total Petroleum Hydrocarbons

ft - feet

(CS) Confirmation Sample

(SW) Sidewall Sample

APPENDIX B

CARMONA RESOURCES



PHOTOGRAPHIC LOG

Cimarex Energy Co.

Photograph No. 1

Facility: Cuervo Federal #020H

County: Lea County, New Mexico

Description:

View Southeast, area of CS-1 through CS-2.



Photograph No. 2

Facility: Cuervo Federal #020H

County: Lea County, New Mexico

Description:

View Northwest, area of CS-3 through CS-6.



Photograph No. 3

Facility: Cuervo Federal #020H

County: Lea County, New Mexico

Description:

View North, area of CS-3 through CS-6.



APPENDIX C

CARMONA RESOURCES



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	NCH1830572329
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Cimarex Energy	OGRID 215099
Contact Name Christine Alderman	Contact Telephone 432-853-7059
Contact email calderman@cimarex.com	Incident # (assigned by OCD)
Contact mailing address 600 N Marienfeld Ste 600 Midland, TX	79701

Location of Release Source

Latitude ~~32.315377~~ 32.314287 Longitude ~~-103.650171~~ -103.648751
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Cuervo Cuervo Federal #020H	Site Type tank battery
Date Release Discovered 10/24/2018	API# (if applicable) 30-025-40559

Unit Letter	Section	Township	Range	County
A N	14 11	23S	32E	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) 20	Volume Recovered (bbls) 5
	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

Tire tracks were identified at the 4" poly SWD line which had a gash in it. The produced water was released until the line was shut in and clamped. PW is in the pasture area approximately 20'x40'. The impacted soils were hydrovaced and taken for disposal. Sampling will be done to confirm impacted soils were completely removed.

Amended Initial C-141 to correct GPS coordinates and ULSTR

Incident ID	NCH183057
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)? 	

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: <u>Christine Alderman</u>	Title: <u>ESH Supervisor</u>
Signature: <u>Christine Alderman</u>	Date: <u>10-26-2018</u>
email: <u>calderman@cimarex.com</u>	Telephone: <u>432-853-7059</u>
<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

Page 4

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: Jac. Lj Date: _____

email: _____ Telephone: _____

OCD OnlyReceived by: Jocelyn Harimon Date: 06/05/2023

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: Jocelyn Harimon Date: 06/05/2023

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: 08/16/2023

Printed Name: Jocelyn Harimon Title: Environmental Specialist

Ashton Thielke

From: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Sent: Friday, April 14, 2023 10:36 AM
To: Ashton Thielke
Cc: Bratcher, Michael, EMNRD; Hamlet, Robert, EMNRD
Subject: RE: [EXTERNAL] NCH1830572329 - Cuervo Federal #020H (Confirmation Sampling Notification)

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.

Ashton,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file
JH

Jocelyn Harimon • Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov
[http:// www.emnrd.nm.gov](http://www.emnrd.nm.gov)



From: Ashton Thielke <Ashton.Thielke@coterra.com>
Sent: Thursday, April 13, 2023 7:51 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Laci Luig <Laci.Luig@coterra.com>
Subject: [EXTERNAL] NCH1830572329 - Cuervo Federal #020H (Confirmation Sampling Notification)

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

This email serves as 48 hr. notification for confirmation sampling on the above mentioned site.
Sampling is scheduled to begin as early as 10:00 (MST) April 18, 2023, weather and soil conditions permitting.
Incident ID: NCH1830572329
Coordinates: 32.314356, -103.648852

Thank you,



Ashton Thielke | PBU - Environmental Consultant

T: 432.813.8988 | M: 281.753.5659 | ashton.thielke@coterra.com | www.coterra.com

Coterra Energy Inc. | 600 N. Marienfeld Street, Suite 600 | Midland, TX 79701

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APPENDIX D

CARMONA RESOURCES



Nearest Water Well

Cimarex Energy Co.

Legend



- 0.45 Miles
- 0.50 Mile Radius
- 1.50 Miles
- 2.00 Miles
- 2.87 Miles
- 3.00 Miles
- Cuervo Federal #020H (10.24.2018)
- GWDB - >105' - 04.10.2023
- NMSEO Water Well
- USGS Waster Well



Low Karst

Cimarex Energy Co.

Legend

-  Cuervo Federal #020H (10.24.2018)
-  Low

Cuervo Federal #020H (10.24.2018)

CARMONA RESOURCES



Project Name :	Cuevo Federal 20H	Date :	Monday, April 10, 2023
Project No. :	1244	Sampler :	Michael Collier
Location :	Lea County, New Mexico	Driller :	H&R Enterprises
Coordinates :	32.310922°, -103.644669°	Method :	Air Rotary
Elevation :	3,730'		

Depth (ft.)	WL	Soil Description	Lithology	Depth (ft.)	WL	Soil Description	Lithology
0		(0'-5') - Organic topsoil, no gravel or caliche.		50			
5				55		(45'-105') - Well Sorted Silty Sands with Clay, No gravels, 60% Silty Sand, 40% Clay, dry (SC).	
10		(5'-15') - Light brown well graded gravel, caliche, no organics, dry (GM).		60			
15				65			
20				70			
25		(20'-35') - Brown/Light brown well graded gravel, 70% Caliche, 30% Silty Sand, no organics, dry (SW).		75			
30				80		(45'-105') - Well Sorted Silty Sands with Clay, No gravels, 60% Silty Sand, 40% Clay, dry (SC).	
35				85			
40		(35'-45') - Light brown well graded gravel, 90% Silty Sand, 10% Clay, dry (ML).		90			
45				95		(45'-105') - Well Sorted Silty Sands with Clay, No gravels, 60% Silty Sand, 40% Clay, dry (SC).	
50		(45'-105') - Well Sorted Silty Sands with Clay, No gravels, 60% Silty Sand, 40% Clay, dry (SC).		105			

Comments : Boring terminated at 105' with no presence of groundwater or moisture.
Well measured 4/14/2023 with no detection of groundwater

Dry @ 105'

120

150

S
180

210

☉ 172°S (T) • 32.310922, -103.644669 ±3 m ▲ 1115 m



Quervo



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	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02349	CUB	ED		2	3	03	23S	32E		625678	3578004*	2281	525		
C 02216	CUB	LE		2	2	4	21	23S	32E	625035	3573261*	3566	585	400	185

Average Depth to Water: **400 feet**

Minimum Depth: **400 feet**

Maximum Depth: **400 feet**

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 627065

Northing (Y): 3576193

Radius: 4000

*UTM location was derived from PLSS - see Help

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Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER



New Mexico Office of the State Engineer

Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
C	02275	3	3	2	19	23S	33E	630843	3573557*

x

Driller License:**Driller Company:****Driller Name:** ABBOTT BROTHERS**Drill Start Date:****Drill Finish Date:**

12/31/1980

Plug Date:**Log File Date:****PCW Rcv Date:****Source:**

Shallow

Pump Type:**Pipe Discharge Size:****Estimated Yield:** 40 GPM**Casing Size:** 8.63**Depth Well:**

650 feet

Depth Water: 400 feet

x

Meter Number:

514

Meter Make:

MASTER METER

Meter Serial Number: 1527874**Meter Multiplier:**

10.0000

Number of Dials:

6

Meter Type:

Diversion

Unit of Measure:

Gallons

Return Flow Percent:**Usage Multiplier:****Reading Frequency:**

Quarterly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount Online
02/28/1999	1999	260142	A	ms		0
04/15/1999	1999	294352	A	ms		1.050
07/18/1999	1999	320962	A	ms		0.817
11/28/1999	1999	367317	A	ms		1.423
04/06/2000	2000	413837	A	mb		1.428
08/16/2000	2000	474649	A	mb		1.866
09/15/2000	2000	485983	A	RPT		0.348
01/19/2001	2000	530107	A	RPT		1.354
04/27/2001	2001	569967	A	RPT		1.223
07/16/2001	2001	620178	A	ms		1.541
01/12/2002	2002	652573	A	tg		0.994
04/13/2002	2002	662745	A	RPT		0.312
07/12/2002	2002	674878	A	rm		0.372
01/01/2003	2002	714899	A	ms		1.228
07/11/2003	2003	751760	A	ms		1.131
10/01/2003	2003	778772	A	ab		0.829
01/08/2004	2003	802123	A	ab		0.717
04/07/2004	2004	821801	A	RPT		0.604
07/15/2004	2004	836507	A	RPT		0.451
10/12/2004	2004	844068	A	RPT		0.232
01/26/2005	2004	877058	A	RPT		1.012
04/15/2005	2005	889933	A	RPT		0.395
08/03/2005	2005	891339	A	RPT		0.043
10/31/2005	2005	927761	A	RPT		1.118
01/31/2006	2005	941723	A	RPT		0.428

04/20/2006	2006	966263	A	RPT	0.753
07/19/2006	2006	9421	R	tw Meter Rollover	1.324
11/27/2006	2006	90114	A	RPT	2.476
04/16/2007	2007	124935	A	tw	1.069
07/13/2007	2007	148838	A	tw	0.734
11/03/2007	2007	189325	A	RPT	1.243
04/15/2008	2008	230341	A	RPT	1.259
07/11/2008	2008	273176	A	RPT	1.315
01/08/2009	2008	375616	A	RPT	3.144
05/07/2009	2009	432782	A	RPT	1.754
07/06/2009	2009	465558	A	RPT	1.006
11/02/2009	2009	537994	A	tw	2.223
05/13/2010	2010	592265	A	RPT	1.666
08/23/2010	2010	598613	A	RPT	0.195
11/09/2010	2010	598791	A	RPT	0.005
02/13/2011	2011	599215	A	RPT	0.013
07/12/2011	2011	607344	A	RPT	0.249
01/10/2012	2012	608458	A	RPT	0.034
04/15/2012	2012	608566	A	RPT	0.003
03/20/2013	2012	608566	A	RPT	0
07/18/2013	2013	608566	A	RPT	0
07/22/2019	2019	896990	A	RPT	8.851
04/01/2020	2020	120850	R	RPT Meter Rollover	6.870

**YTD Meter Amounts:	Year	Amount
	1999	3.290
	2000	4.996
	2001	2.764
	2002	2.906
	2003	2.677
	2004	2.299
	2005	1.984
	2006	4.553
	2007	3.046
	2008	5.718
	2009	4.983
	2010	1.866
	2011	0.262
	2012	0.037
	2013	0
	2019	8.851
	2020	6.870

*UTM location was derived from PLSS - see Help

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Geographic Area:New Mexico

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Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 321950103400601

Minimum number of levels = 1
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USGS 321950103400601 23S.32E.03.31110

Lea County, New Mexico
Latitude 32°19'50", Longitude 103°40'06" NAD27
Land-surface elevation 3,668 feet above NAVD88
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Chinle Formation (231CHNL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measured
1972-09-13			D 62610		3462.10	NGVD29	1		Z	
1972-09-13			D 62611		3463.82	NAVD88	1		Z	
1972-09-13			D 72019	204.18			1		Z	
1977-03-10			D 62610		3452.43	NGVD29	1		Z	
1977-03-10			D 62611		3454.15	NAVD88	1		Z	
1977-03-10			D 72019	213.85			1		Z	
1981-03-26			D 62610		3468.94	NGVD29	1		Z	
1981-03-26			D 62611		3470.66	NAVD88	1		Z	
1981-03-26			D 72019	197.34			1		Z	
1986-04-16			D 62610		3469.63	NGVD29	1		Z	
1986-04-16			D 62611		3471.35	NAVD88	1		Z	
1986-04-16			D 72019	196.65			1		Z	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Title: Groundwater for New Mexico: Water Levels
URL: <https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?>



Page Contact Information: [New Mexico Water Data Maintainer](#)
Page Last Modified: 2023-02-28 12:17:48 EST
0.27 0.24 nadww02



New Mexico Office of the State Engineer

Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
C	02276	3	1	4	19	23S	33E	630848	3573154*

x

Driller License:**Driller Company:****Driller Name:** ABBOTT BROTHERS**Drill Start Date:****Drill Finish Date:**

12/31/1957

Plug Date:**Log File Date:****PCW Rcv Date:****Source:**

Shallow

Pump Type:**Pipe Discharge Size:****Estimated Yield:** 40 GPM**Casing Size:**

8.63

Depth Well:

650 feet

Depth Water:

400 feet

x

Meter Number:

515

Meter Make:

MASTER METER

Meter Serial Number: 152782**Meter Multiplier:**

10.0000

Number of Dials:

6

Meter Type:

Diversion

Unit of Measure:

Gallons

Return Flow Percent:**Usage Multiplier:****Reading Frequency:**

Quarterly

x

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount Online
02/27/1999	1999	838142	A	ms		0
04/15/1999	1999	849194	A	ms		0.339
07/18/1999	1999	852511	A	ms		0.102
11/28/1999	1999	880506	A	ms		0.859
04/06/2000	2000	880525	A	mb		0.001
08/16/2000	2000	0	A	mb		0
08/16/2000	2000	3713	A	mb		0.114
09/15/2000	2000	34387	A	RPT		0.941
01/19/2001	2000	147434	A	RPT		3.469
04/27/2001	2001	250085	A	RPT		3.150
07/16/2001	2001	328518	A	ms		2.407
01/12/2002	2002	389056	A	tg		1.858
04/13/2002	2002	408878	A	RPT		0.608
07/12/2002	2002	440120	A	rm		0.959
01/01/2003	2002	505416	A	ms		2.004
04/28/2003	2003	536552	A	ms		0.956
07/11/2003	2003	693927	A	RPT		4.830
10/16/2003	2003	693927	A	ab		0
01/08/2004	2003	693927	A	ab		0
04/07/2004	2004	695806	A	RPT		0.058
07/15/2004	2004	723969	A	RPT		0.864
10/12/2004	2004	739108	A	RPT		0.465
01/26/2005	2004	788665	A	RPT		1.521
04/15/2005	2005	814297	A	RPT		0.787
08/03/2005	2005	846601	A	RPT		0.991

10/31/2005	2005	856320	A	RPT	0.298
01/31/2006	2005	866374	A	RPT	0.309
04/20/2006	2006	874208	A	RPT	0.240
07/19/2006	2006	889314	A	tw	0.464
11/27/2006	2006	917719	A	RPT	0.872
04/16/2007	2007	929550	A	RPT	0.363
07/13/2007	2007	936082	A	RPT	0.200
11/03/2007	2007	942871	A	RPT	0.208
04/15/2008	2008	944140	A	RPT	0.039
07/11/2008	2008	944909	A	RPT	0.024
01/08/2009	2008	964144	A	RPT	0.590
05/07/2009	2009	976275	A	RPT	0.372
07/06/2009	2009	984911	A	RPT	0.265
11/12/2009	2009	106368	R	tw Meter Rollover	3.727
05/13/2010	2010	257600	A	RPT	4.641
08/23/2010	2010	315189	A	RPT	1.767
11/09/2010	2010	317933	A	RPT	0.084
02/13/2011	2011	373250	A	RPT	1.698
07/12/2011	2011	468021	A	RPT	2.908
01/10/2012	2012	570894	A	RPT	3.157
04/15/2012	2012	671162	A	RPT	3.077
03/20/2013	2012	783611	A	RPT	3.451
07/18/2013	2013	842234	A	RPT	1.799
07/22/2019	2019	977178	A	RPT	4.141
04/01/2020	2020	977178	A	RPT	0

x

**YTD Meter Amounts:	Year	Amount
	1999	1.300
	2000	4.525
	2001	5.557
	2002	5.429
	2003	5.786
	2004	2.908
	2005	2.385
	2006	1.576
	2007	0.771
	2008	0.653
	2009	4.364
	2010	6.492
	2011	4.606
	2012	9.685
	2013	1.799
	2019	4.141
	2020	0

x

*UTM location was derived from PLSS - see Help

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Data Category: Groundwater Geographic Area: New Mexico

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Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 321732103401701

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 321732103401701 23S.32E.21.223444

Lea County, New Mexico

Latitude 32°17'32", Longitude 103°40'17" NAD27

Land-surface elevation 3,682 feet above NAVD88

The depth of the well is 550 feet below land surface.

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Santa Rosa Sandstone (231SNRS) local aquifer.

Output formats

[Table of data](#)

[Tab-separated data](#)

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[Reselect period](#)

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement
1972-09-21			D	62610	3199.51	NGVD29	P		Z	
1972-09-21			D	62611	3201.25	NAVD88	P		Z	
1972-09-21			D	72019	480.75		P		Z	
1976-12-07			D	62610	3201.79	NGVD29	1		Z	
1976-12-07			D	62611	3203.53	NAVD88	1		Z	
1976-12-07			D	72019	478.47		1		Z	

Explanation

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

Section	Code	Description
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Status	P	Pumping
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

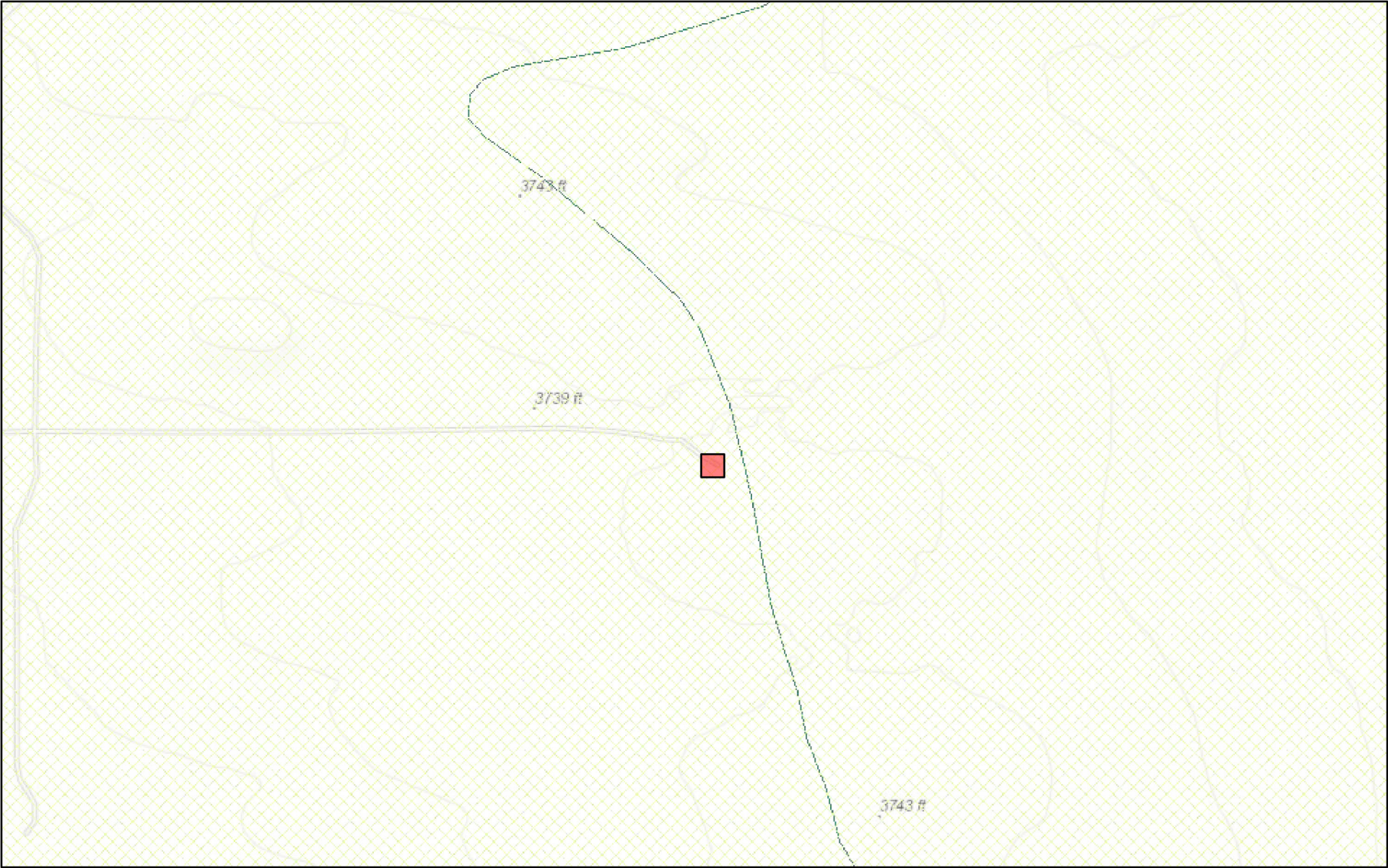
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Title: Groundwater for New Mexico: Water Levels
URL: <https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels/>

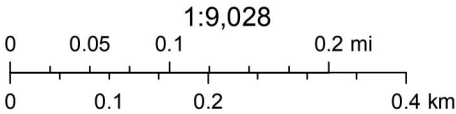


Page Contact Information: [New Mexico Water Data Maintainer](#)
Page Last Modified: 2023-02-28 12:16:45 EST
0.3 0.24 nadww02

New Mexico NFHL Data



February 28, 2023



FEMA, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey,

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APPENDIX E

CARMONA RESOURCES





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

March 22, 2023

ASHTON THIELKE

CARMONA RESOURCES

310 W WALL ST SUITE 415

MIDLAND, TX 79701

RE: CUERVO FEDERAL #020H (10.24.2018)

Enclosed are the results of analyses for samples received by the laboratory on 03/16/23 14:56.

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' at the beginning.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: S - 1 (0-0.5') (H231210-01)

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	03/17/2023	ND	2.11	106	2.00	0.777	
Toluene*	<0.050	0.050	03/17/2023	ND	2.10	105	2.00	0.0946	
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	2.19	109	2.00	0.447	
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.73	112	6.00	0.226	
Total BTEX	<0.300	0.300	03/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B			mg/kg		Analyzed By: GM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/17/2023	ND	400	100	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	03/17/2023	ND	180	90.1	200	13.6	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	171	85.7	200	13.1	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 88.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: S - 1 (0.5'-1') R (H231210-02)

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	03/17/2023	ND	2.11	106	2.00	0.777		
Toluene*	<0.050	0.050	03/17/2023	ND	2.10	105	2.00	0.0946		
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	2.19	109	2.00	0.447		
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.73	112	6.00	0.226		
Total BTEX	<0.300	0.300	03/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	03/17/2023	ND	400	100	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	03/17/2023	ND	180	90.1	200	13.6	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	171	85.7	200	13.1	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 73.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: S - 2 (0-0.5') (H231210-03)

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	03/17/2023	ND	2.11	106	2.00	0.777		
Toluene*	<0.050	0.050	03/17/2023	ND	2.10	105	2.00	0.0946		
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	2.19	109	2.00	0.447		
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.73	112	6.00	0.226		
Total BTEX	<0.300	0.300	03/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	03/17/2023	ND	400	100	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	03/17/2023	ND	180	90.1	200	13.6	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	171	85.7	200	13.1	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 75.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: S - 2 (0.5'-1') (H231210-04)

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	03/17/2023	ND	2.11	106	2.00	0.777		
Toluene*	<0.050	0.050	03/17/2023	ND	2.10	105	2.00	0.0946		
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	2.19	109	2.00	0.447		
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.73	112	6.00	0.226		
Total BTEX	<0.300	0.300	03/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	03/17/2023	ND	400	100	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	03/17/2023	ND	180	90.1	200	13.6	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	171	85.7	200	13.1	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 77.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: S - 2 (1.0'-1.5') (H231210-05)

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	03/17/2023	ND	2.11	106	2.00	0.777	
Toluene*	<0.050	0.050	03/17/2023	ND	2.10	105	2.00	0.0946	
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	2.19	109	2.00	0.447	
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.73	112	6.00	0.226	
Total BTEX	<0.300	0.300	03/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	03/17/2023	ND	400	100	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	03/17/2023	ND	180	90.1	200	13.6	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	171	85.7	200	13.1	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 66.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 70.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: S - 3 (0-0.5') (H231210-06)

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	03/17/2023	ND	2.01	101	2.00	1.49	
Toluene*	<0.050	0.050	03/17/2023	ND	2.01	101	2.00	1.32	
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	1.99	99.5	2.00	1.27	
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.02	100	6.00	0.762	
Total BTX	<0.300	0.300	03/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	03/17/2023	ND	400	100	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	03/17/2023	ND	180	90.1	200	13.6	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	171	85.7	200	13.1	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 66.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 72.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: S - 3 (0.5'-1') (H231210-07)

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	03/17/2023	ND	2.01	101	2.00	1.49		
Toluene*	<0.050	0.050	03/17/2023	ND	2.01	101	2.00	1.32		
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	1.99	99.5	2.00	1.27		
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.02	100	6.00	0.762		
Total BTEx	<0.300	0.300	03/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	03/17/2023	ND	400	100	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	03/17/2023	ND	180	90.1	200	13.6	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	171	85.7	200	13.1	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 79.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: S - 3 (1.0'-1.5') (H231210-08)

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	03/17/2023	ND	2.01	101	2.00	1.49		
Toluene*	<0.050	0.050	03/17/2023	ND	2.01	101	2.00	1.32		
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	1.99	99.5	2.00	1.27		
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.02	100	6.00	0.762		
Total BTEX	<0.300	0.300	03/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	03/17/2023	ND	400	100	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	03/17/2023	ND	180	90.1	200	13.6	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	171	85.7	200	13.1	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 71.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: S - 4 (0-0.5') (H231210-09)

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	03/17/2023	ND	2.01	101	2.00	1.49		
Toluene*	<0.050	0.050	03/17/2023	ND	2.01	101	2.00	1.32		
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	1.99	99.5	2.00	1.27		
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.02	100	6.00	0.762		
Total BTEX	<0.300	0.300	03/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	03/17/2023	ND	400	100	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	03/17/2023	ND	180	90.1	200	13.6	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	171	85.7	200	13.1	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 95.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: S - 4 (0.5'-1') (H231210-10)

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	03/17/2023	ND	2.01	101	2.00	1.49		
Toluene*	<0.050	0.050	03/17/2023	ND	2.01	101	2.00	1.32		
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	1.99	99.5	2.00	1.27		
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.02	100	6.00	0.762		
Total BTEX	<0.300	0.300	03/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	928	16.0	03/17/2023	ND	400	100	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	03/17/2023	ND	180	90.1	200	13.6	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	171	85.7	200	13.1	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 74.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.7 % 49.1-148

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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: S - 4 (1.0'-1.5') (H231210-11)

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	03/17/2023	ND	2.01	101	2.00	1.49		
Toluene*	<0.050	0.050	03/17/2023	ND	2.01	101	2.00	1.32		
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	1.99	99.5	2.00	1.27		
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.02	100	6.00	0.762		
Total BTEx	<0.300	0.300	03/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1300	16.0	03/17/2023	ND	400	100	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	03/17/2023	ND	180	90.1	200	13.6	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	171	85.7	200	13.1	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 72.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.2 % 49.1-148

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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: S - 4 (1.5'-2.0') (H231210-12)

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	03/17/2023	ND	2.01	101	2.00	1.49	
Toluene*	<0.050	0.050	03/17/2023	ND	2.01	101	2.00	1.32	
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	1.99	99.5	2.00	1.27	
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.02	100	6.00	0.762	
Total BTEX	<0.300	0.300	03/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1580	16.0	03/17/2023	ND	400	100	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	03/17/2023	ND	180	90.1	200	13.6	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	171	85.7	200	13.1	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 69.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.7 % 49.1-148

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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: S - 4 (2.0-3.0') R (H231210-13)

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	03/17/2023	ND	2.01	101	2.00	1.49		
Toluene*	<0.050	0.050	03/17/2023	ND	2.01	101	2.00	1.32		
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	1.99	99.5	2.00	1.27		
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.02	100	6.00	0.762		
Total BTEX	<0.300	0.300	03/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1500	16.0	03/17/2023	ND	400	100	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	03/17/2023	ND	180	90.1	200	13.6	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	171	85.7	200	13.1	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 68.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.3 % 49.1-148

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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: S - 5 (0-0.5') (H231210-14)

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	03/17/2023	ND	2.01	101	2.00	1.49	
Toluene*	<0.050	0.050	03/17/2023	ND	2.01	101	2.00	1.32	
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	1.99	99.5	2.00	1.27	
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.02	100	6.00	0.762	
Total BTX	<0.300	0.300	03/17/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	03/17/2023	ND	400	100	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	03/17/2023	ND	180	90.1	200	13.6	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	171	85.7	200	13.1	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 85.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.9 % 49.1-148

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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: S - 5 (0.5'-1') R (H231210-15)

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	03/17/2023	ND	2.01	101	2.00	1.49		
Toluene*	<0.050	0.050	03/17/2023	ND	2.01	101	2.00	1.32		
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	1.99	99.5	2.00	1.27		
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.02	100	6.00	0.762		
Total BTEX	<0.300	0.300	03/17/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	03/17/2023	ND	400	100	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	03/17/2023	ND	180	90.1	200	13.6	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	171	85.7	200	13.1	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 88.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.7 % 49.1-148

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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: S - 6 (0-0.5') (H231210-16)

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	03/17/2023	ND	2.01	101	2.00	1.49	
Toluene*	<0.050	0.050	03/17/2023	ND	2.01	101	2.00	1.32	
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	1.99	99.5	2.00	1.27	
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.02	100	6.00	0.762	
Total BTEx	<0.300	0.300	03/17/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1170	16.0	03/17/2023	ND	400	100	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	03/17/2023	ND	180	90.1	200	13.6	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	171	85.7	200	13.1	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 81.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: S - 6 (0.5'-1') (H231210-17)

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	03/17/2023	ND	2.01	101	2.00	1.49	
Toluene*	<0.050	0.050	03/17/2023	ND	2.01	101	2.00	1.32	
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	1.99	99.5	2.00	1.27	
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.02	100	6.00	0.762	
Total BTEX	<0.300	0.300	03/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	03/20/2023	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	03/17/2023	ND	180	90.1	200	13.6	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	171	85.7	200	13.1	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 70.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: S - 6 (1'-1.5') R (H231210-18)

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	03/17/2023	ND	2.01	101	2.00	1.49	
Toluene*	<0.050	0.050	03/17/2023	ND	2.01	101	2.00	1.32	
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	1.99	99.5	2.00	1.27	
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.02	100	6.00	0.762	
Total BTEX	<0.300	0.300	03/17/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	03/20/2023	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	03/17/2023	ND	180	90.1	200	13.6	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	171	85.7	200	13.1	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 79.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.8 % 49.1-148

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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 1 (0-0.5') (H231210-19)

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	03/17/2023	ND	2.01	101	2.00	1.49	
Toluene*	<0.050	0.050	03/17/2023	ND	2.01	101	2.00	1.32	
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	1.99	99.5	2.00	1.27	
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.02	100	6.00	0.762	
Total BTX	<0.300	0.300	03/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	03/20/2023	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	03/17/2023	ND	173	86.4	200	5.93	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	191	95.6	200	9.93	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 85.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.7 % 49.1-148

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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 2 (0-0.5') (H231210-20)

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	03/17/2023	ND	2.01	101	2.00	1.49	
Toluene*	<0.050	0.050	03/17/2023	ND	2.01	101	2.00	1.32	
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	1.99	99.5	2.00	1.27	
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.02	100	6.00	0.762	
Total BTEx	<0.300	0.300	03/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	03/20/2023	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	03/17/2023	ND	173	86.4	200	5.93	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	191	95.6	200	9.93	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 91.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 3 (0-0.5') (H231210-21)

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	03/17/2023	ND	2.01	101	2.00	1.49		
Toluene*	<0.050	0.050	03/17/2023	ND	2.01	101	2.00	1.32		
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	1.99	99.5	2.00	1.27		
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.02	100	6.00	0.762		
Total BTEX	<0.300	0.300	03/17/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	03/20/2023	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	03/17/2023	ND	173	86.4	200	5.93	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	191	95.6	200	9.93	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 80.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.1 % 49.1-148

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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 4 (0-0.5') (H231210-22)

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	03/17/2023	ND	2.01	101	2.00	1.49		
Toluene*	<0.050	0.050	03/17/2023	ND	2.01	101	2.00	1.32		
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	1.99	99.5	2.00	1.27		
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.02	100	6.00	0.762		
Total BTEX	<0.300	0.300	03/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	03/20/2023	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	03/17/2023	ND	173	86.4	200	5.93	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	191	95.6	200	9.93	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 82.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 03/16/2023
 Reported: 03/22/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 03/16/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: H - 5 (0-0.5') (H231210-23)

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	03/17/2023	ND	2.01	101	2.00	1.49		
Toluene*	<0.050	0.050	03/17/2023	ND	2.01	101	2.00	1.32		
Ethylbenzene*	<0.050	0.050	03/17/2023	ND	1.99	99.5	2.00	1.27		
Total Xylenes*	<0.150	0.150	03/17/2023	ND	6.02	100	6.00	0.762		
Total BTEX	<0.300	0.300	03/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	03/20/2023	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	03/17/2023	ND	173	86.4	200	5.93	
DRO >C10-C28*	<10.0	10.0	03/17/2023	ND	191	95.6	200	9.93	
EXT DRO >C28-C36	<10.0	10.0	03/17/2023	ND					

Surrogate: 1-Chlorooctane 75.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.4 % 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

Work Order No: HA31210Page 1 of 3

Project Manager:	Ashton Thielke	Bill to: (if different)	Laci Luig
Company Name:	Carmona Resources	Company Name:	Cimarex Energy
Address:	310 W Wall St Ste 415	Address:	600 N Mainfield St, Suite 600
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	432-813-8988	Email:	laci.luig@colterra.com ashton.thielke@colterra.com

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Iperfund <input type="checkbox"/>	State of Project:
Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>	Deliverables: EDD <input type="checkbox"/> Adapt <input type="checkbox"/> Other:

Project Name:	Cuervo Federal #020H (10 24 2018)	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	ANALYSIS REQUEST												Preservative Codes	
Project Number:	1241	Due Date:	Normal														None: NO	DI Water: H ₂ O
Project Location:	Lea County, New Mexico																Cool: Cool	MeOH: Me
Sampler's Name:	GP/JKB																HCL: HC	HNO ₃ : HN
PO #:																	H ₂ SO ₄ : H ₂	NaOH: Na
SAMPLE RECEIPT																	H ₃ PO ₄ : HP	
Received Intact:	Temp Blank: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No														NaHSO ₄ : NABIS	
Cooler Custody Seals:	Thermometer ID:	Correction Factor:															Na ₂ S ₂ O ₃ : NaSO ₃	
Sample Custody Seals:	Temperature Reading:	Corrected Temperature:															Zn Acetate+NaOH: Zn	
Total Containers:																	NaOH+Ascorbic Acid: SAPC	

Sample Identification	Date	Time	Soil	Water	Grab/Comp	# of Cont	BTX 8021B	TPH 8015M (GRO + DRO + MRO)	Chloride 4500													Sample Comments
S-1 (0-0.5')	3/16/2023		X		G	1	X	X	X													
S-1 (0.5'-1'R)	3/16/2023		X		G	1	X	X	X													
S-2 (0-0.5')	3/16/2023		X		G	1	X	X	X													
S-2 (0.5'-1')	3/16/2023		X		G	1	X	X	X													
S-2 (1.0'-1.5')	3/16/2023		X		G	1	X	X	X													
S-3 (0-0.5')	3/16/2023		X		G	1	X	X	X													
S-3 (0.5'-1')	3/16/2023		X		G	1	X	X	X													
S-3 (1.0'-1.5')	3/16/2023		X		G	1	X	X	X													
S-4 (0-0.5')	3/16/2023		X		G	1	X	X	X													
S-4 (0.5'-1')	3/16/2023		X		G	1	X	X	X													

Comments:

Relinquished by: (Signature)

Date/Time

Received by: (Signature)

Date/Time

Chain of Custody

Work Order No: 1231210

Page 2 of 3

Project Manager:	Ashton Thielke	Bill to: (if different)	Laci Luig
Company Name:	Carmona Resources	Company Name:	Cimarex Energy
Address:	310 W Wall St Ste 415	Address:	600 N Mainfield St, Suite 600
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	432-813-8988	Email:	laci.luig@coerra.com ashton.thielke@coerra.com

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name:	Cuervo Federal #020H (10.24.2018)	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pr-s. Code		ANALYSIS REQUEST												Preservative Codes								
Project Number:	1241																	None: NO DI Water: H ₂ O								
Project Location:	Lea County, New Mexico	Due Date:	Normal															Cool: Cool MeOH: Me								
Sampler's Name:	GPJKB																	HCL: HC HNO ₃ : HN								
PO #:																		H ₂ SO ₄ : H ₂ NaOH: Na								
SAMPLE RECEIPT				Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wet Ice:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>													H ₃ PO ₄ : HP						
Received Inact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Thermometer ID:																NaHSO ₄ : NABIS								
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor:																Na ₂ S ₂ O ₃ : NaSO ₃								
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Temperature Reading:																Zn Acetate+NaOH: Zn								
Total Containers:		Corrected Temperature:																NaOH+Ascorbic Acid: SAPC								
Sample Identification				Date	Time	Soil	Water	Grab/Comp	# of Cont													Sample Comments				
S-4 (1.0'-1.5')				3/16/2023		X		G	1	X	X	X														
S-4 (1.5'-2.0')				3/16/2023		X		G	1	X	X	X														
S-4 (2.0'-3.0')R				3/16/2023		X		G	1	X	X	X														
S-5 (0.0'-5')				3/16/2023		X		G	1	X	X	X														
S-5 (0.5'-1')R				3/16/2023		X		G	1	X	X	X														
S-6 (0.0'-5')				3/16/2023		X		G	1	X	X	X														
S-6 (0.5'-1')				3/16/2023		X		G	1	X	X	X														
S-6 (1'-1.5')R				3/16/2023		X		G	1	X	X	X														
H-1 (0.0'-5')				3/16/2023		X		G	1	X	X	X														
H-2 (0.0'-5')				3/16/2023		X		G	1	X	X	X														

Comments:

Relinquished by: (Signature)

Date/Time

Received by: (Signature)

Date/Time

Chain of Custody

Work Order No: 4831210

Page 28 of 28

[illegible]



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

April 20, 2023

ASHTON THIELKE

CARMONA RESOURCES

310 W WALL ST SUITE 415

MIDLAND, TX 79701

RE: CUERVO FEDERAL #020H (10.24.2018)

Enclosed are the results of analyses for samples received by the laboratory on 04/19/23 16:53.

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' at the beginning.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received:	04/19/2023	Sampling Date:	04/19/2023
Reported:	04/20/2023	Sampling Type:	Soil
Project Name:	CUERVO FEDERAL #020H (10.24.2018)	Sampling Condition:	Cool & Intact
Project Number:	1241	Sample Received By:	Tamara Oldaker
Project Location:	CIMAREX - LEA CO, NEW MEXICO		

Sample ID: CS - 1 (1.0') (H231911-01)

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	04/20/2023	ND	1.97	98.7	2.00	5.82	
Toluene*	<0.050	0.050	04/20/2023	ND	2.05	102	2.00	5.39	
Ethylbenzene*	<0.050	0.050	04/20/2023	ND	2.10	105	2.00	5.46	
Total Xylenes*	<0.150	0.150	04/20/2023	ND	6.45	108	6.00	6.32	
Total BTEX	<0.300	0.300	04/20/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	04/20/2023	ND	432	108	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	04/19/2023	ND	172	86.0	200	0.975	
DRO >C10-C28*	<10.0	10.0	04/19/2023	ND	171	85.6	200	2.18	
EXT DRO >C28-C36	<10.0	10.0	04/19/2023	ND					

Surrogate: 1-Chlorooctane 95.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 04/19/2023
 Reported: 04/20/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 04/19/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: CS - 2 (1.0') (H231911-02)

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	04/20/2023	ND	1.97	98.7	2.00	5.82		
Toluene*	<0.050	0.050	04/20/2023	ND	2.05	102	2.00	5.39		
Ethylbenzene*	<0.050	0.050	04/20/2023	ND	2.10	105	2.00	5.46		
Total Xylenes*	<0.150	0.150	04/20/2023	ND	6.45	108	6.00	6.32		
Total BTEX	<0.300	0.300	04/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	04/20/2023	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	04/19/2023	ND	172	86.0	200	0.975	
DRO >C10-C28*	<10.0	10.0	04/19/2023	ND	171	85.6	200	2.18	
EXT DRO >C28-C36	<10.0	10.0	04/19/2023	ND					

Surrogate: 1-Chlorooctane 79.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 04/19/2023
 Reported: 04/20/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 04/19/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: CS - 3 (4.0') (H231911-03)

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	04/20/2023	ND	1.97	98.7	2.00	5.82		
Toluene*	<0.050	0.050	04/20/2023	ND	2.05	102	2.00	5.39		
Ethylbenzene*	<0.050	0.050	04/20/2023	ND	2.10	105	2.00	5.46		
Total Xylenes*	<0.150	0.150	04/20/2023	ND	6.45	108	6.00	6.32		
Total BTEx	<0.300	0.300	04/20/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	992	16.0	04/20/2023	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	04/19/2023	ND	172	86.0	200	0.975	
DRO >C10-C28*	<10.0	10.0	04/19/2023	ND	171	85.6	200	2.18	
EXT DRO >C28-C36	<10.0	10.0	04/19/2023	ND					

Surrogate: 1-Chlorooctane 94.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 04/19/2023
 Reported: 04/20/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 04/19/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: CS - 4 (4.0') (H231911-04)

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	04/20/2023	ND	1.97	98.7	2.00	5.82		
Toluene*	<0.050	0.050	04/20/2023	ND	2.05	102	2.00	5.39		
Ethylbenzene*	<0.050	0.050	04/20/2023	ND	2.10	105	2.00	5.46		
Total Xylenes*	<0.150	0.150	04/20/2023	ND	6.45	108	6.00	6.32		
Total BTEX	<0.300	0.300	04/20/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	04/20/2023	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	04/19/2023	ND	172	86.0	200	0.975	
DRO >C10-C28*	<10.0	10.0	04/19/2023	ND	171	85.6	200	2.18	
EXT DRO >C28-C36	<10.0	10.0	04/19/2023	ND					

Surrogate: 1-Chlorooctane 98.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 04/19/2023
 Reported: 04/20/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 04/19/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: CS - 5 (4.0') (H231911-05)

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	04/20/2023	ND	1.97	98.7	2.00	5.82		
Toluene*	<0.050	0.050	04/20/2023	ND	2.05	102	2.00	5.39		
Ethylbenzene*	<0.050	0.050	04/20/2023	ND	2.10	105	2.00	5.46		
Total Xylenes*	<0.150	0.150	04/20/2023	ND	6.45	108	6.00	6.32		
Total BTEx	<0.300	0.300	04/20/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	04/20/2023	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	04/19/2023	ND	172	86.0	200	0.975	
DRO >C10-C28*	<10.0	10.0	04/19/2023	ND	171	85.6	200	2.18	
EXT DRO >C28-C36	<10.0	10.0	04/19/2023	ND					

Surrogate: 1-Chlorooctane 86.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 04/19/2023
 Reported: 04/20/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 04/19/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: CS - 6 (4.0') (H231911-06)

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	04/20/2023	ND	1.97	98.7	2.00	5.82		
Toluene*	<0.050	0.050	04/20/2023	ND	2.05	102	2.00	5.39		
Ethylbenzene*	<0.050	0.050	04/20/2023	ND	2.10	105	2.00	5.46		
Total Xylenes*	<0.150	0.150	04/20/2023	ND	6.45	108	6.00	6.32		
Total BTEX	<0.300	0.300	04/20/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/20/2023	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	04/19/2023	ND	172	86.0	200	0.975	
DRO >C10-C28*	<10.0	10.0	04/19/2023	ND	171	85.6	200	2.18	
EXT DRO >C28-C36	<10.0	10.0	04/19/2023	ND					

Surrogate: 1-Chlorooctane 72.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 04/19/2023
 Reported: 04/20/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 04/19/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW - 1 (1.0') (H231911-07)

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	04/20/2023	ND	1.97	98.7	2.00	5.82		
Toluene*	<0.050	0.050	04/20/2023	ND	2.05	102	2.00	5.39		
Ethylbenzene*	<0.050	0.050	04/20/2023	ND	2.10	105	2.00	5.46		
Total Xylenes*	<0.150	0.150	04/20/2023	ND	6.45	108	6.00	6.32		
Total BTEx	<0.300	0.300	04/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	592	16.0	04/20/2023	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	04/19/2023	ND	172	86.0	200	0.975	
DRO >C10-C28*	<10.0	10.0	04/19/2023	ND	171	85.6	200	2.18	
EXT DRO >C28-C36	<10.0	10.0	04/19/2023	ND					

Surrogate: 1-Chlorooctane 86.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 04/19/2023
 Reported: 04/20/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 04/19/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW - 2 (1.0') (H231911-08)

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	04/20/2023	ND	1.97	98.7	2.00	5.82		
Toluene*	<0.050	0.050	04/20/2023	ND	2.05	102	2.00	5.39		
Ethylbenzene*	<0.050	0.050	04/20/2023	ND	2.10	105	2.00	5.46		
Total Xylenes*	<0.150	0.150	04/20/2023	ND	6.45	108	6.00	6.32		
Total BTX	<0.300	0.300	04/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	04/20/2023	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	04/19/2023	ND	172	86.0	200	0.975	
DRO >C10-C28*	<10.0	10.0	04/19/2023	ND	171	85.6	200	2.18	
EXT DRO >C28-C36	<10.0	10.0	04/19/2023	ND					

Surrogate: 1-Chlorooctane 76.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.6 % 49.1-148

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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 04/19/2023
 Reported: 04/20/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 04/19/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW - 3 (1.0') (H231911-09)

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	04/20/2023	ND	1.97	98.7	2.00	5.82	
Toluene*	<0.050	0.050	04/20/2023	ND	2.05	102	2.00	5.39	
Ethylbenzene*	<0.050	0.050	04/20/2023	ND	2.10	105	2.00	5.46	
Total Xylenes*	<0.150	0.150	04/20/2023	ND	6.45	108	6.00	6.32	
Total BTEx	<0.300	0.300	04/20/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	04/20/2023	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	04/20/2023	ND	172	86.0	200	0.975	
DRO >C10-C28*	<10.0	10.0	04/20/2023	ND	171	85.6	200	2.18	
EXT DRO >C28-C36	<10.0	10.0	04/20/2023	ND					

Surrogate: 1-Chlorooctane 50.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 53.9 % 49.1-148

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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 04/19/2023
 Reported: 04/20/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 04/19/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW - 4 (1.0') (H231911-10)

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	04/20/2023	ND	1.97	98.7	2.00	5.82		
Toluene*	<0.050	0.050	04/20/2023	ND	2.05	102	2.00	5.39		
Ethylbenzene*	<0.050	0.050	04/20/2023	ND	2.10	105	2.00	5.46		
Total Xylenes*	<0.150	0.150	04/20/2023	ND	6.45	108	6.00	6.32		
Total BTEX	<0.300	0.300	04/20/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	04/20/2023	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	04/20/2023	ND	172	86.0	200	0.975	
DRO >C10-C28*	<10.0	10.0	04/20/2023	ND	171	85.6	200	2.18	
EXT DRO >C28-C36	<10.0	10.0	04/20/2023	ND					

Surrogate: 1-Chlorooctane 75.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.0 % 49.1-148

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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 04/19/2023
 Reported: 04/20/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 04/19/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW - 5 (4.0') (H231911-11)

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	04/20/2023	ND	1.97	98.7	2.00	5.82		
Toluene*	<0.050	0.050	04/20/2023	ND	2.05	102	2.00	5.39		
Ethylbenzene*	<0.050	0.050	04/20/2023	ND	2.10	105	2.00	5.46		
Total Xylenes*	<0.150	0.150	04/20/2023	ND	6.45	108	6.00	6.32		
Total BTEX	<0.300	0.300	04/20/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	480	16.0	04/20/2023	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	04/20/2023	ND	172	86.0	200	0.975	
DRO >C10-C28*	<10.0	10.0	04/20/2023	ND	171	85.6	200	2.18	
EXT DRO >C28-C36	<10.0	10.0	04/20/2023	ND					

Surrogate: 1-Chlorooctane 72.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.5 % 49.1-148

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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 04/19/2023
 Reported: 04/20/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 04/19/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW - 6 (4.0') (H231911-12)

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	04/20/2023	ND	1.97	98.7	2.00	5.82	
Toluene*	<0.050	0.050	04/20/2023	ND	2.05	102	2.00	5.39	
Ethylbenzene*	<0.050	0.050	04/20/2023	ND	2.10	105	2.00	5.46	
Total Xylenes*	<0.150	0.150	04/20/2023	ND	6.45	108	6.00	6.32	
Total BTEX	<0.300	0.300	04/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	04/20/2023	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	04/20/2023	ND	172	86.0	200	0.975	
DRO >C10-C28*	<10.0	10.0	04/20/2023	ND	171	85.6	200	2.18	
EXT DRO >C28-C36	<10.0	10.0	04/20/2023	ND					

Surrogate: 1-Chlorooctane 79.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.9 % 49.1-148

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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 04/19/2023
 Reported: 04/20/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 04/19/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW - 7 (4.0') (H231911-13)

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	04/20/2023	ND	1.97	98.7	2.00	5.82	
Toluene*	<0.050	0.050	04/20/2023	ND	2.05	102	2.00	5.39	
Ethylbenzene*	<0.050	0.050	04/20/2023	ND	2.10	105	2.00	5.46	
Total Xylenes*	<0.150	0.150	04/20/2023	ND	6.45	108	6.00	6.32	
Total BTEx	<0.300	0.300	04/20/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	04/20/2023	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	04/20/2023	ND	172	86.0	200	0.975	
DRO >C10-C28*	<10.0	10.0	04/20/2023	ND	171	85.6	200	2.18	
EXT DRO >C28-C36	<10.0	10.0	04/20/2023	ND					

Surrogate: 1-Chlorooctane 71.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.8 % 49.1-148

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Analytical Results For:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 04/19/2023
 Reported: 04/20/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 04/19/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SW - 8 (4.0') (H231911-14)

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	04/20/2023	ND	1.97	98.7	2.00	5.82		
Toluene*	<0.050	0.050	04/20/2023	ND	2.05	102	2.00	5.39		
Ethylbenzene*	<0.050	0.050	04/20/2023	ND	2.10	105	2.00	5.46		
Total Xylenes*	<0.150	0.150	04/20/2023	ND	6.45	108	6.00	6.32		
Total BTEx	<0.300	0.300	04/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	448	16.0	04/20/2023	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	04/20/2023	ND	172	86.0	200	0.975	
DRO >C10-C28*	<10.0	10.0	04/20/2023	ND	171	85.6	200	2.18	
EXT DRO >C28-C36	<10.0	10.0	04/20/2023	ND					

Surrogate: 1-Chlorooctane 84.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.7 % 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 "C. D. Keene", is written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager

Chain of Custody

Work Order No:

4231911

Project Manager:	Ashton Thielke	Bill to: (if different)	Laci Luig
Company Name:	Carmona Resources	Company Name:	Cimarex Energy
Address:	310 W Wall St Ste 500	Address:	600 N Marinenfeld St, Suite 600
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	432-813-8988	Email:	laci.luig@coterra.com ashton.thielke@coterra.com

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> IJC <input type="checkbox"/> Iperfund <input type="checkbox"/>	
State of Project:	
Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> PRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name:		Cuervo Federal #020H (10.24.2018)		Turn Around		Pres. Code	ANALYSIS REQUEST												Preservative Codes		
Project Number:	1241	<input type="checkbox"/> Routine	<input checked="" type="checkbox"/> Rush	Project Location	Lea County, New Mexico		Due Date:	24 hour													None: NO
Sampler's Name:	GPJ																			Cool: Cool	MeOH: Me
PO #:																				HCL: HC	HNO ₃ : HN
SAMPLE RECEIPT		Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wet Ice:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>													H ₂ SO ₄ : H ₂	NaOH: Na		
Received Intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Thermometer ID:	113													H ₃ PO ₄ : HP					
Cooler Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Correction Factor:	-0.6													NaHSO ₄ : NABIS					
Sample Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Temperature Reading:	2.2													Na ₂ S ₂ O ₃ : NaSO ₃					
Total Containers:			Corrected Temperature:	1.6													Zn Acetate+NaOH: Zn				
Sample Identification		Date	Time	Soil	Water	Grab/Comp	# of Cont													Sample Comments	
CS-1 (1.0')		4/19/2023		X		Comp	1	X	X	X											
CS-2 (1.0')		4/19/2023		X		Comp	1	X	X	X											
CS-3 (4.0')		4/19/2023		X		Comp	1	X	X	X											
CS-4 (4.0')		4/19/2023		X		Comp	1	X	X	X											
CS-5 (4.0')		4/19/2023		X		Comp	1	X	X	X											
CS-6 (4.0')		4/19/2023		X		Comp	1	X	X	X											
SW-1 (1.0')		4/19/2023		X		Comp	1	X	X	X											
SW-2 (1.0')		4/19/2023		X		Comp	1	X	X	X											
SW-3 (1.0')		4/19/2023		X		Comp	1	X	X	X											
SW-4 (1.0')		4/19/2023		X		Comp	1	X	X	X											
Comments:																					

Comments:

Relinquished by: (Signature)

Date/Time

Received by: (Signature)

Date/Time

Work Order No: H231911

Page 18 of 18

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ hRC ☐ Iperfund ☐

State of Project:

Reporting Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐

Deliverables: EDD ☐ ADAPT ☐ Other:

[illegible]



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

April 24, 2023

ASHTON THIELKE

CARMONA RESOURCES

310 W WALL ST SUITE 415

MIDLAND, TX 79701

RE: CUERVO FEDERAL #020H (10.24.2018)

Enclosed are the results of analyses for samples received by the laboratory on 04/21/23 10:03.

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:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 04/21/2023
 Reported: 04/24/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 04/21/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: CS - 1 (1.25') (H231943-01)

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	04/21/2023	ND	1.92	95.8	2.00	1.49	
Toluene*	<0.050	0.050	04/21/2023	ND	2.04	102	2.00	0.868	
Ethylbenzene*	<0.050	0.050	04/21/2023	ND	2.14	107	2.00	0.698	
Total Xylenes*	<0.150	0.150	04/21/2023	ND	6.49	108	6.00	0.140	
Total BTX	<0.300	0.300	04/21/2023	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	400	16.0	04/21/2023	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	04/22/2023	ND	179	89.3	200	3.67	
DRO >C10-C28*	<10.0	10.0	04/22/2023	ND	164	82.2	200	5.24	
EXT DRO >C28-C36	<10.0	10.0	04/22/2023	ND					

Surrogate: 1-Chlorooctane 82.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.7 % 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:

CARMONA RESOURCES
 ASHTON THIELKE
 310 W WALL ST SUITE 415
 MIDLAND TX, 79701
 Fax To:

Received: 04/21/2023
 Reported: 04/24/2023
 Project Name: CUERVO FEDERAL #020H (10.24.2018)
 Project Number: 1241
 Project Location: CIMAREX - LEA CO, NEW MEXICO

Sampling Date: 04/21/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: CS - 3 (4.25') (H231943-02)

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	04/21/2023	ND	1.92	95.8	2.00	1.49		
Toluene*	<0.050	0.050	04/21/2023	ND	2.04	102	2.00	0.868		
Ethylbenzene*	<0.050	0.050	04/21/2023	ND	2.14	107	2.00	0.698		
Total Xylenes*	<0.150	0.150	04/21/2023	ND	6.49	108	6.00	0.140		
Total BTEx	<0.300	0.300	04/21/2023	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	16.0	16.0	04/21/2023	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	04/22/2023	ND	179	89.3	200	3.67	
DRO >C10-C28*	<10.0	10.0	04/22/2023	ND	164	82.2	200	5.24	
EXT DRO >C28-C36	<10.0	10.0	04/22/2023	ND					

Surrogate: 1-Chlorooctane 92.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.4 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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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 "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager

Chain of Custody

Work Order No: A23194

Page 1 of 1

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[illegible]

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
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 223397

CONDITIONS

Operator: CIMAREX ENERGY CO. 6001 Deauville Blvd Midland, TX 79706	OGRID: 215099
	Action Number: 223397
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	8/16/2023