



September 25, 2023

District Supervisor  
Oil Conservation Division, District 1  
1625 North French Drive  
Hobbs, New Mexico 88240

**Re: Closure Report  
ConocoPhillips  
Windward Federal 005H Release  
Unit Letter D, Section 30, Township 24 South, Range 32 East  
DOR: 7/01/2023  
Lea County, New Mexico  
Incident ID: NAPP2319143291**

Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips Company (ConocoPhillips) to assess a release that occurred at a flowline associated with the Windward Federal #005H well (API#). The release footprint is located within Public Land Survey System (PLSS) Unit Letter D, Section 30, Township 24 South, Range 32 East, in Lea County, New Mexico (Site). The approximate release point occurred at coordinates 32.194722°, -103.719722°, as shown on Figures 1 and 2.

## BACKGROUND

According to the C-141 Initial Report, the release occurred on July 1, 2023, and was caused by a hole in a flowline due to corrosion. Approximately 0.0446 bbls of oil and 0.1338 bbls of produced water were reported released into a pasture area adjacent to a lease road, and no fluid was recovered. The provided spill calculator indicates a release area of approximately 24 square feet. This release extent was identified based on information provided by ConocoPhillips representatives and a review of photographs taken at the release area. The approximate release extent is shown in Figure 3. The New Mexico Oil Conservation Division (NMOCD) approved the initial C-141 on July 10, 2023, and assigned the release the Incident ID NAPP2319143291. The C-141 is included as Appendix A.

## LAND OWNERSHIP

According to the NMOCD Oil and Gas Map, the site is located on land owned by the Bureau of Land Management (BLM). Tetra Tech requested BLM clearance to remediate via email on August 30, 2023. The BLM cleared the Site for remediation activities via email, following a desktop review conducted by Shelly Taylor of the BLM. The regulatory correspondence is included in Appendix B.

## SITE CHARACTERIZATION

A site characterization was performed and no sinkholes, residences, schools, hospitals, institutions, churches, stream bodies, springs, playa lakes, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the distances specified in 19.15.29 New Mexico Administrative Code (NMAC). The Site is in an area of low karst potential.

Tetra Tech

901 West Wall St., Suite 100, Midland, TX 79701

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Fax 432.682.3946

www.tetrattech.com

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ConocoPhillips

According to the New Mexico Office of the State Engineer (NMOSE) reporting system, there is one well within a ½-mile (800-meter) radius of the Site, located approximately 0.40 miles (686 meters) east of the release point. This well has a total depth of 120 feet below ground surface (bgs) with no groundwater encountered. The nearest NMOSE-registered well with depth-to-water data is located (2,068 meters) from the Site and has a depth to water of 135 feet bgs. The site characterization data is included in Appendix C.

## REGULATORY FRAMEWORK

Based upon the release footprint and in accordance with Subsection E of 19.15.29.12 NMAC, per 19.15.29.11 NMAC, the site characterization data was used to determine recommended remedial action levels (RRALs) for benzene, toluene, ethylbenzene, and xylene (collectively referred to as BTEX), total petroleum hydrocarbons (TPH), and chlorides in soil.

Based on the site characterization and in accordance with Table I of 19.15.29.12 NMAC, the RRALs for the Site are as follows:

Constituent	Site RRALs
Chloride	20,000 mg/kg
TPH (GRO+DRO+ORO)	2,500 mg/kg
TPH (GRO+DRO)	1,000 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

Additionally, in accordance with the NMOCD guidance Procedures for Implementation of the Spill Rule (19.15.29 NMAC) (September 6, 2019), the following reclamation requirements for surface soils (0-4 feet bgs) outside of active oil and gas operations are as follows:

Constituent	Reclamation Requirements
Chloride	600 mg/kg
TPH (GRO+DRO+ORO)	100 mg/kg

## INITIAL RESPONSE AND REMEDIAL ACTIVITIES

In accordance with 19.15.29.8. B. (4) NMAC that states “the responsible party may commence remediation immediately after discovery of a release,” ConocoPhillips elected to begin remediation of the impacted area on July 10, 2023. The visibly impacted material was initially excavated by scraping the surface to a depth of 1 foot bgs. Photographic documentation of the release extent scrape is presented in Appendix D. The initial response area is indicated in Figure 3.

## INITIAL CONFIRMATION SAMPLING

To confirm the efficacy of the initial response, Tetra Tech conducted confirmation soil sampling at the Site on behalf of ConocoPhillips after the initial remedial action. On July 12, 2023, Tetra Tech collected one floor sample from the base of the excavation (FS-1) and four sidewall samples (SW-1 through SW-4). The sampling locations are presented in Figure 4. Photographic documentation from the initial soil sampling is included in Appendix D.

A total of five (5) soil samples were sent to Cardinal Laboratories in Hobbs, New Mexico to be analyzed for chloride via Standard Method 4500CI-B, TPH via EPA Method 8015M, and BTEX via EPA Method 8021B. A copy of the laboratory analytical reports and chain-of-custody documentation are included in Appendix E.

Closure Report  
September 25, 2023

ConocoPhillips

Analytical results from the initial confirmation sampling activities are summarized in Table 1. All analytical results were below the Site RRALs for all constituents except for the floor sample (FS-1), which slightly exceeded the TPH reclamation requirement of 100 mg/kg.

## REMEDIATION ACTIVITIES AND ADDITIONAL CONFIRMATION SAMPLING

On August 31 and September 1, 2023, Tetra Tech personnel remobilized to the site to conduct additional remedial activities and confirmation sampling. Based on the results of the initial sampling, Tetra Tech excavated the release extent an additional 1-foot to a total depth of 2 feet bgs.

All of the excavated material was transported offsite for proper disposal. Approximately five (5) cubic yards of material were transported to the R360 Halfway Facility in Hobbs, New Mexico. Prior to confirmation sampling, in accordance with Subsection D of 19.15.29.12 NMAC, the NMOCD district office was notified via email on August 30, 2023. Documentation of associated regulatory correspondence is included in Appendix B.

One (1) floor sample (FS-1 (2')) was collected from the base of the excavation and submitted to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico to be analyzed for chlorides via EPA Method 4500.0, TPH via EPA Method 8015M, and BTEX via EPA Method 8021B. The results of the confirmation sampling activities are summarized in Table 1. The analytical results were below the Site RRALs for all constituents. A copy of the laboratory analytical report and chain-of-custody documentation are included in Appendix E.

Once confirmation sampling activities were completed, the excavated areas were backfilled with clean material to surface grade. Photographs from the excavated areas prior to backfill are provided in Appendix D. The backfilled areas were seeded with the BLM seed mixture for LPC Sand/Shinnery Sites to aid in revegetation. Remediated areas, depths and confirmation sample locations are shown in Figure 4.

## CONCLUSION

Based on the results of the remedial activities and confirmation sampling, ConocoPhillips respectfully requests closure of the incident. The current release footprint is fully remediated. Analytical results associated with the iterative sampling events were below applicable Site RRALs following all remedial response actions; therefore, remediation of the release footprint is complete. The impacted surface area was remediated to meet the standards of Table I of 19.15.29.12 NMAC.

This final closure report has been submitted within 90 days of discovery of the release. This final closure report details the release characterization, remediation activities and the results of the assessment sampling. The final C-141 forms are enclosed in Appendix A. If you have any questions concerning the soil assessment activities for the Site, please call me at (512) 739-7874.

Sincerely,

**Tetra Tech, Inc.**



Samantha Abbott, P.G.  
Project Manager



Christian M. Llull, P.G.  
Program Manager

cc:  
Mr. Jacob Laird, GPBU – ConocoPhillips

Closure Report  
September 25, 2023

ConocoPhillips

## LIST OF ATTACHMENTS

### Figures:

- Figure 1 – Overview Map
- Figure 2 – Topographic Map
- Figure 3 – Approximate Release Extent and Initial Response
- Figure 4 – Remediation Extent and Confirmation Sampling Locations

### Tables:

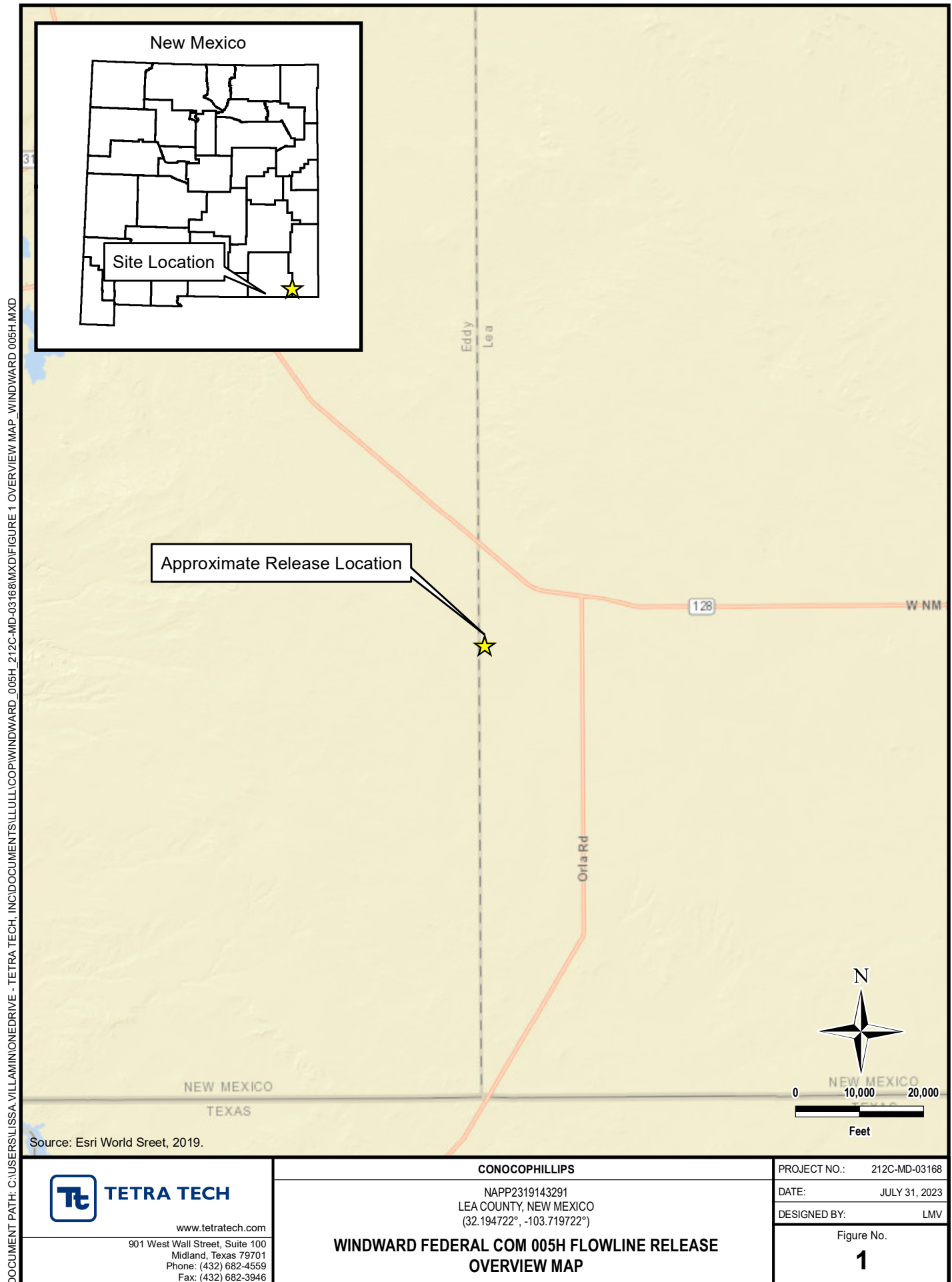
- Table 1 – Summary of Analytical Results – 2023 Soil Remediation

### Appendices:

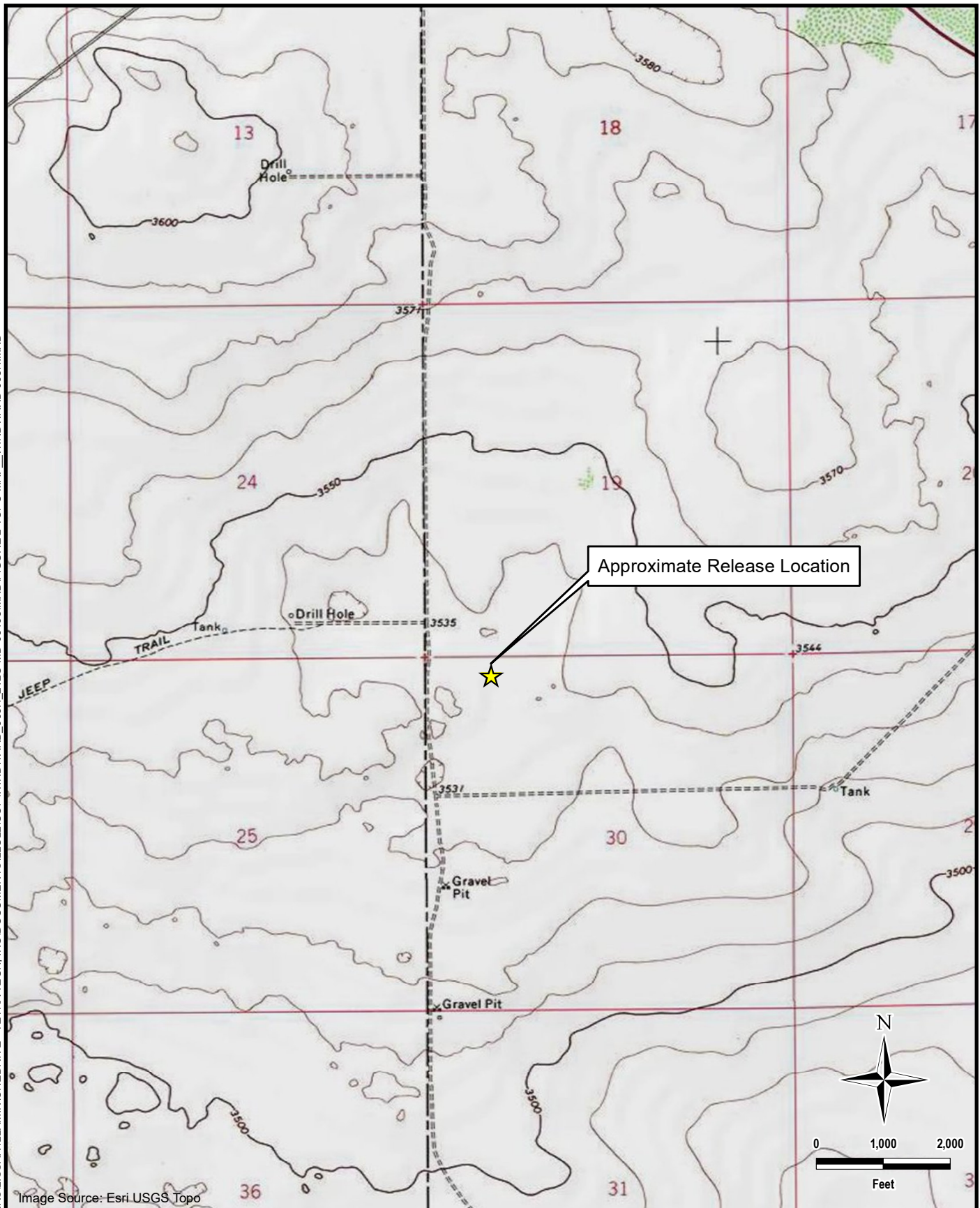
- Appendix A – C-141 Forms
- Appendix B – Regulatory Correspondence
- Appendix C – Site Characterization Data
- Appendix D – Photographic Documentation
- Appendix E – Laboratory Analytical Data



## **FIGURES**



DOCUMENT PATH: C:\USERS\LISSA.VILLAMONEDRIVE - TETRA TECH, INC\DOCUMENTS\ILLULLI\COPI\WINDWARD\_005H\_212C-MD-03168\MXD\FIGURE 2 TOPO MAP\_WINDWARD 005H.MXD

**TETRA TECH**

www.tetrattech.com

901 West Wall Street, Suite 100  
Midland, Texas 79701  
Phone: (432) 682-4559  
Fax: (432) 682-3946

**CONOCOPHILLIPS**

NAPP2319143291  
LEA COUNTY, NEW MEXICO  
(32.194722°, -103.719722°)

### WINDWARD FEDERAL COM 005H FLOWLINE RELEASE TOPOGRAPHIC MAP

PROJECT NO.: 212C-MD-03168

DATE: JULY 31, 2023

DESIGNED BY: LMV

Figure No.





**2**



DOCUMENT PATH: C:\USERS\LISSA.VILLAMINIONEDRIVE - TETRA TECH, INC\DOCUMENTS\ILLULLICOP\WINDWARD\_005H\_212C-MD-03168MXD\FIGURE 3 APPROX RELEASE & RESPONSE\_WINDWARD\_005H.MXD



**Legend**

-  Inferred Release Extent
-  Approximate Scrape Area ~ 6"-1' BGS
-  Surface Steel Line
-  Surface Polyline

BGS: Below Ground Surface  
Source: Google Earth.



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**CONOCOPHILLIPS**

NAPP2319143291  
LEA COUNTY, NEW MEXICO  
(32.194722°, -103.719722°)

**WINDWARD FEDERAL COM 005H FLOWLINE RELEASE  
APPROXIMATE RELEASE EXTENT AND INITIAL RESPONSE**

PROJECT NO.: 212C-MD-03168

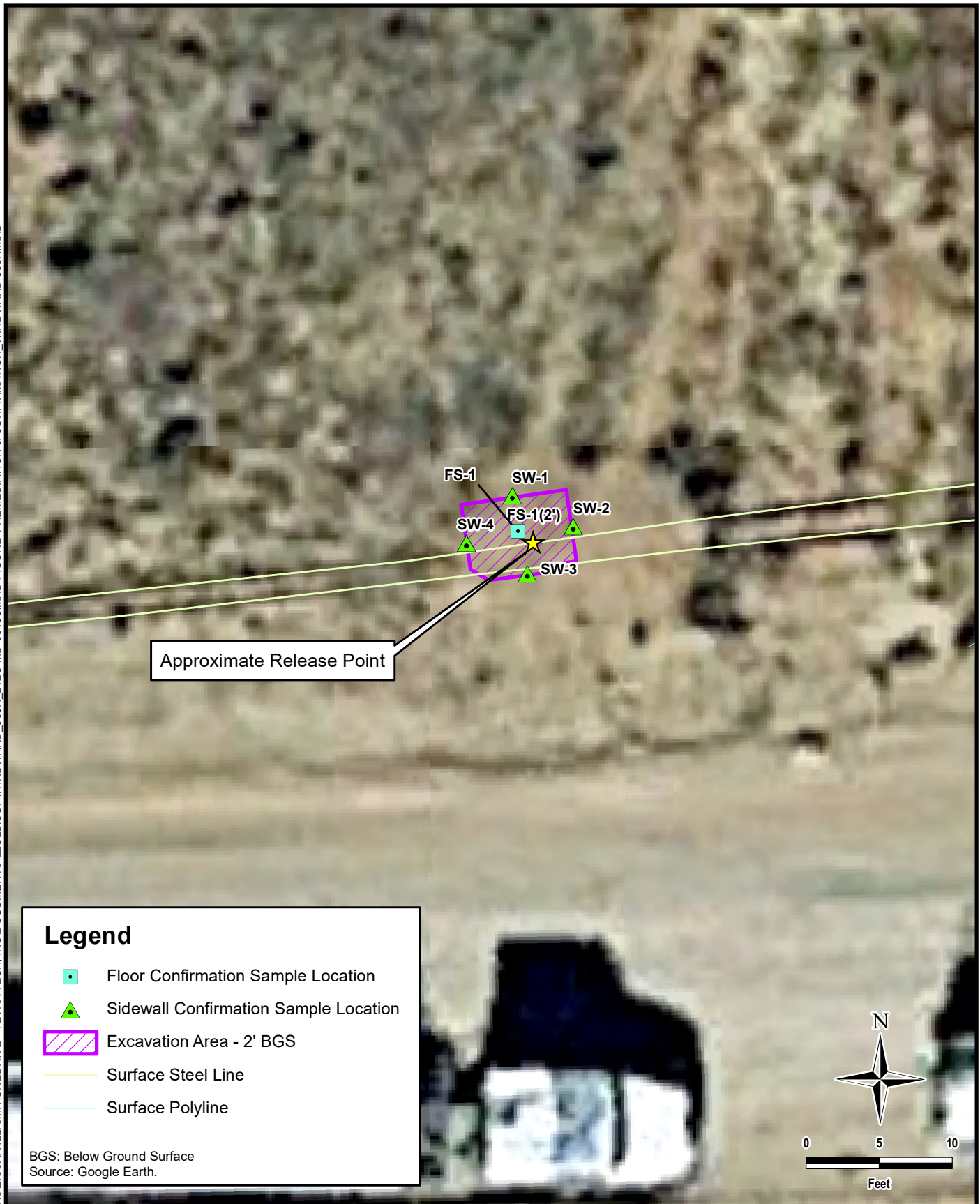
DATE: SEPTEMBER 21, 2023

DESIGNED BY: LMV

Figure No.

**3**

DOCUMENT PATH: C:\USERS\LISSA.VILLAMINIONEDRIVE - TETRA TECH\INC\DOCUMENTS\ILLULL\COPI\WINDWARD\_005H\_212C-MD-03168\MMXD\FIGURE 4 REMEDIATION &amp; CONFIRMATION\_WINDWARD\_005H.MXD

**TETRA TECH**

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Fax: (432) 682-3946

**CONOCOPHILLIPS**

NAPP2319143291  
LEA COUNTY, NEW MEXICO  
(32.194722°, -103.719722°)

**WINDWARD FEDERAL COM 005H FLOWLINE RELEASE  
REMEDATION EXTENT AND CONFIRMATION SAMPLING LOCATIONS**

PROJECT NO.: 212C-MD-03168

DATE: SEPTEMBER 21, 2023

DESIGNED BY: LMV

Figure No.

**4**

## **TABLES**

TABLE 1  
SUMMARY OF ANALYTICAL RESULTS  
2023 SOIL REMEDIATION  
NAPP2319143291  
CONOCOPHILLIPS  
WINDWARD FEDERAL COM #005H  
LEA COUNTY, NEW MEXICO

Sample ID	Sample Date	Sample Depth	Field Screening Results	Chloride <sup>1</sup>		BTEx <sup>2</sup>										TPH <sup>3</sup>							
			Chloride			Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEx		GRO		DRO		EXT DRO		Total TPH (GRO+DRO+EXT DRO)	
		ft. bgs	ppm	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	
SW-1	7/12/2023	-	521	464		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		70.0		24.9		94.9	
SW-2	7/12/2023	-	415	288		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		45.3		20.5		65.8	
SW-3	7/12/2023	-	281	192		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		37.4		20.3		57.7	
SW-4	7/12/2023	-	312	160		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		45.9		16.9		62.8	
FS-1	7/12/2023	1	355	448		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		107		32.4		139.4	
FS-1 (2') *	8/31/2023	2	947	384		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	

NOTES:

ft. Feet

bgs Below ground surface

mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbons

GRO Gasoline range organics

DRO Diesel range organics

1 Method SM4500Cl-B

2 Method 8021B

3 Method 8015M

***Bold and italicized values indicate exceedance of proposed RRALs and/or Reclamation Requirements.***

Gold highlight represents soil horizons that were removed during deepening of excavation floors.

\* These iterative samples are located to encompass the original sample location that triggered removal, with further excavation in each area indicated in ().

## **APPENDIX A**

### **C-141 Forms**



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

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

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

Cause of Release

Incident ID	
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 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 type="checkbox"/> The source of the release has been stopped.	
<input type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input 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 _____	Title: _____
Signature: <u>Battani Espinoza</u>	Date: _____
email: _____	Telephone: _____
<b><u>OCD Only</u></b>	
Received by: <u>Shelly Wells</u>	Date: <u>7/10/2023</u>

Received by OCD: 10/3/2023 11:05:35 AM

Facility Name & Well Number(s):

Windward 5H Flowline

Release Discovery Date & Time:

7/2/23 7:30 PM

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Provide any known details about the event:

Hole in Flowline

Primary Cause (dropdown):

Internal Corrosion - Other

Secondary Cause (dropdown):

External Corrosion - Other

Was the Release to Soil / Caliche (dropdown):

Release On/Off Pad (dropdown):

Recovered Volume (bbl.) (if available, not included in volume calculations)

Release Type (dropdown):

Method of Determination (dropdown):

BU:

Permian

Asset Area:

DBE - Asset Avg.

Yes

Off-Pad

0 BBS

Oil Mixture

Field Measurement

Known Volume (dropdown):

No

Known Area (dropdown):

Yes

Mapped Area (sq. ft.)

Average Depth (in.)

Percentage of Oil if Spilled Fluid is a Mixture (%)

Total Estimated Volume of Spill (bbl.)

Total Estimated Volume of Spilled Oil (bbl.)

Total Estimated Volume of Spilled Liquid other than Oil (bbl.)

Released to Imaging: 1/16/2024 10:03:56 AM

24

0.5

25%

0.1784

0.0446

0.1338

**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 237951

CONDITIONS

Operator: COG PRODUCTION, LLC 600 W. Illinois Ave Midland, TX 79701	OGRID: 217955
	Action Number: 237951
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	7/10/2023

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 <b>not</b> 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: Jacob Laird Date: \_\_\_\_\_

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

Received by: Shelly Wells Date: 10/3/2023

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: Jacob Laird Date: \_\_\_\_\_

email: \_\_\_\_\_ Telephone: \_\_\_\_\_

**OCD Only**

Received by: Shelly Wells Date: 10/3/2023

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: Scott Rodgers Date: 01/16/2024

Printed Name: Scott Rodgers Title: Environmental Specialist Adv.

## **APPENDIX B**

### **Regulatory Correspondence**



**Chavira, Lisbeth**

---

**From:** Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>  
**Sent:** Wednesday, August 30, 2023 10:32 AM  
**To:** Chavira, Lisbeth  
**Cc:** Bratcher, Michael, EMNRD; Velez, Nelson, EMNRD  
**Subject:** RE: [EXTERNAL] Incident ID: NAPP2319143291 - Confirmation Sampling

You don't often get email from shelly.wells@emnrd.nm.gov. [Learn why this is important](#)

**⚠ CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments. **⚠**

Good morning Lisbeth,

The OCD has received your notification. Notification requirements are **two full business days**, per rule. You may proceed on your schedule. This, and all correspondence, should be included in the closure report to ensure inclusion in the project file.

Thank you,

Shelly

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

---

**From:** Chavira, Lisbeth <LISBETH.CHAVIRA@tetrattech.com>  
**Sent:** Wednesday, August 30, 2023 8:08 AM  
**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>  
**Cc:** Abbott, Sam <Sam.Abbott@tetrattech.com>  
**Subject:** [EXTERNAL] Incident ID: NAPP2319143291 - Confirmation Sampling

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

Incident ID (n#) **NAPP2319143291** (WINDWARD FEDERAL 005H)

To whom it may concern,

In accordance with Subsection D of 19.15.29.12 NMAC, the responsible party must verbally notify the appropriate division district office prior to conducting confirmation sampling.

Remediation activities of the release will begin Thursday, August 31, 2023.

Thus, on behalf of ConocoPhillips for the above referenced incident, Tetra Tech is duly providing this communication which serves as notification that final confirmation sampling will be conducted at this site **Thursday, August 31, 2023**.

**NOTE:** If you have any questions regarding this sampling schedule, please contact me.

Thank you,

**Lisbeth Chavira** | Staff Geoscientist

Direct Mobile +1 (512) 596-8201 | [Lisbeth.chavira@tetrattech.com](mailto:Lisbeth.chavira@tetrattech.com)

**Tetra Tech** | *Leading with Science*® | OGA

8911 N. Capital of Texas Highway | Bldg. 2, Suite 2310 | Austin, TX 78759 | [tetrattech.com](http://tetrattech.com)

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**From:** [Lull, Christian](#)  
**To:** [Taylor, Shelly J](#)  
**Subject:** RE: [EXTERNAL] FW: Request for Approval - Remediation (Windward Federal Com 005H)  
**Date:** Monday, September 25, 2023 10:40:56 AM  
**Attachments:** [image005.png](#)  
[image006.png](#)  
[image008.png](#)  
[image009.png](#)  
[image010.png](#)  
[image011.png](#)



---

Thank you Shelly!

Christian

---

**From:** Taylor, Shelly J <[sjtaylor@blm.gov](mailto:sjtaylor@blm.gov)>  
**Sent:** Monday, September 25, 2023 10:13 AM  
**To:** Lull, Christian <[Christian.Llull@tetrattech.com](mailto:Christian.Llull@tetrattech.com)>  
**Subject:** Re: [EXTERNAL] FW: Request for Approval - Remediation (Windward Federal Com 005H)

 **CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments. 

You are cleared to proceed.

Sincerely,

*Shelly J Taylor*

Environmental Protection Specialist

Realty - Compliance

Bureau of Land Management/Carlsbad Field Office  
620 E. Greene St  
Carlsbad, NM 88220  
Direct 575.234.5706  
Mobile 575.499.6831  
[sjtaylor@blm.gov](mailto:sjtaylor@blm.gov)



Spill/Release email: [BLM\\_NM\\_CFO\\_REALTY\\_SPILL@BLM.GOV](mailto:BLM_NM_CFO_REALTY_SPILL@BLM.GOV)

---

**From:** Lull, Christian <[Christian.Llull@tetrattech.com](mailto:Christian.Llull@tetrattech.com)>  
**Sent:** Monday, September 25, 2023 8:49 AM  
**To:** Taylor, Shelly J <[sjtaylor@blm.gov](mailto:sjtaylor@blm.gov)>  
**Subject:** [EXTERNAL] FW: Request for Approval - Remediation (Windward Federal Com 005H)

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Are we clear to remediate?

---

**From:** Chavira, Lisbeth  
**Sent:** Wednesday, August 30, 2023 11:18 AM  
**To:** 'sjtaylor@blm.gov' <[sjtaylor@blm.gov](mailto:sjtaylor@blm.gov)>  
**Cc:** Abbott, Sam <[Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)>  
**Subject:** Request for Approval - Remediation (Windward Federal Com 005H)

Shelly,

Good morning. I write on behalf of ConocoPhillips.

Tetra Tech is assisting with remediation of a previously reported unplanned release with the NMOCD, that occurred on July 1, 2023.

In order to complete the remediation and the submittal process we are requesting verbal approval to proceed with cleanup at the location listed below.

Please let me know if you require any other permitting or compliance items in addition to this email approval before we begin work.

**Name of Release: Windward Federal Com 005H**  
**Unit Letter D, Section 30, Township 26 South, Range 32 East**  
**Lea County, New Mexico**  
**Incident Identification (ID) NAPP2319143291**  
**Approximate Release Location: 32.194730°,-103.719841°**  
**Date Release Discovered: July 1, 2023**  
**Volume Released: Approximately 0.0446 barrels (bbls) of crude oil and 0.1338 bbls of produced water were released.**  
**Remediation will be performed with hand shovels near buried lines.**

Please let me know at your earliest convenience that we can proceed.

Thank you,

**Lisbeth Chavira** | Staff Geoscientist

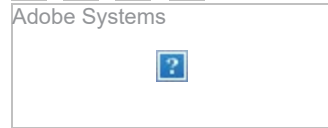
Direct Mobile +1 (512) 596-8201 | [Lisbeth.chavira@tetrattech.com](mailto:Lisbeth.chavira@tetrattech.com)

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8911 N. Capital of Texas Highway | Bldg. 2, Suite 2310 | Austin, TX 78759 | [tetrattech.com](http://tetrattech.com)

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## **APPENDIX C**

### **Site Characterization Data**



# OCD Mineral and Surface Ownership



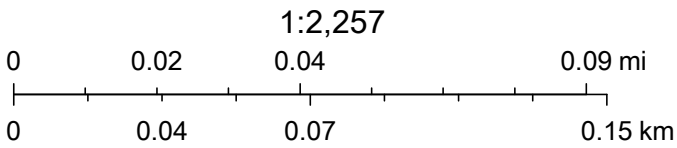
9/8/2023, 11:55:58 AM

Mineral Ownership

A-All minerals are owned by U.S.

Land Ownership

BLM



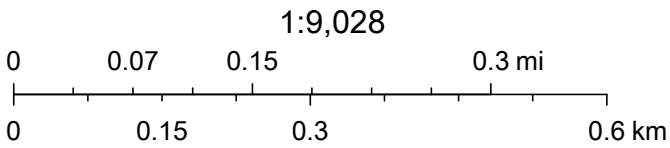
U.S. BLM, Maxar, Microsoft, Esri, HERE, Garmin, iPC



# OCD Waterbodies



7/31/2023, 4:51:28 PM



Esri, HERE, Garmin, IPC, Maxar, NM OSE



# National Flood Hazard Layer FIRMMette



103°43'30"W 32°11'56"N



## Legend

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

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



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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/8/2023 at 12:59 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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



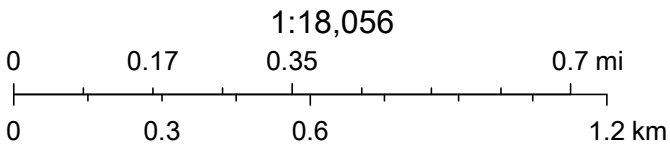
# OCD Karst Potential



7/31/2023, 4:53:53 PM

Karst Occurrence Potential

Low



BLM, OCD, New Mexico Tech, Esri, HERE, Garmin, iPC, Maxar



# 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
<a href="#">C 04665</a>	CUB	LE		1	1	2	30	24S	32E	621350	3562798	686	120		
<a href="#">C 04654 POD1</a>	CUB	ED		3	3	4	25	24S	31E	619764	3561226	1760	55		
<a href="#">C 04636 POD1</a>	CUB	ED		3	4	3	25	24S	31E	619200	3561279	2068			
<a href="#">C 04643 POD1</a>	C	ED		4	2	2	05	23S	27E	619200	3561279	2068	305	135	170

Average Depth to Water: **135 feet**

Minimum Depth: **135 feet**

Maximum Depth: **135 feet**

Record Count: 4

UTMNAD83 Radius Search (in meters):

**Easting (X):** 620665.99

**Northing (Y):** 3562738.71

**Radius:** 2400

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

9/8/23 10:51 AM

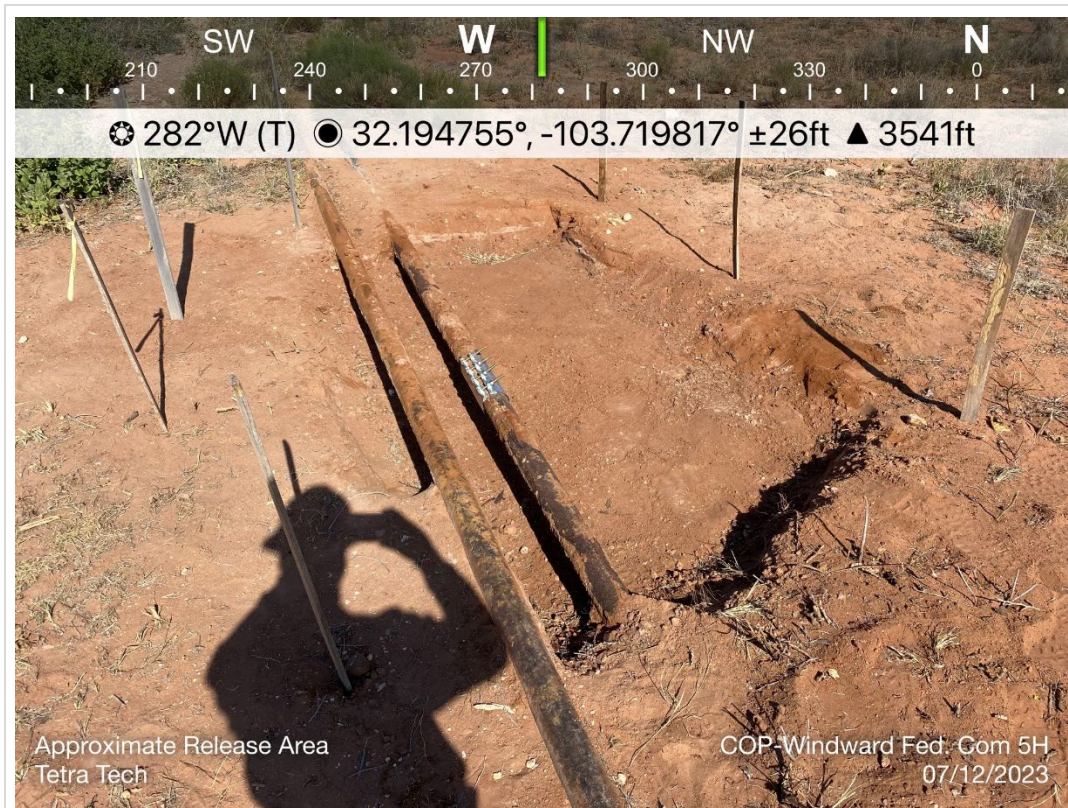
Page 1 of 1

WATER COLUMN/ AVERAGE  
DEPTH TO WATER

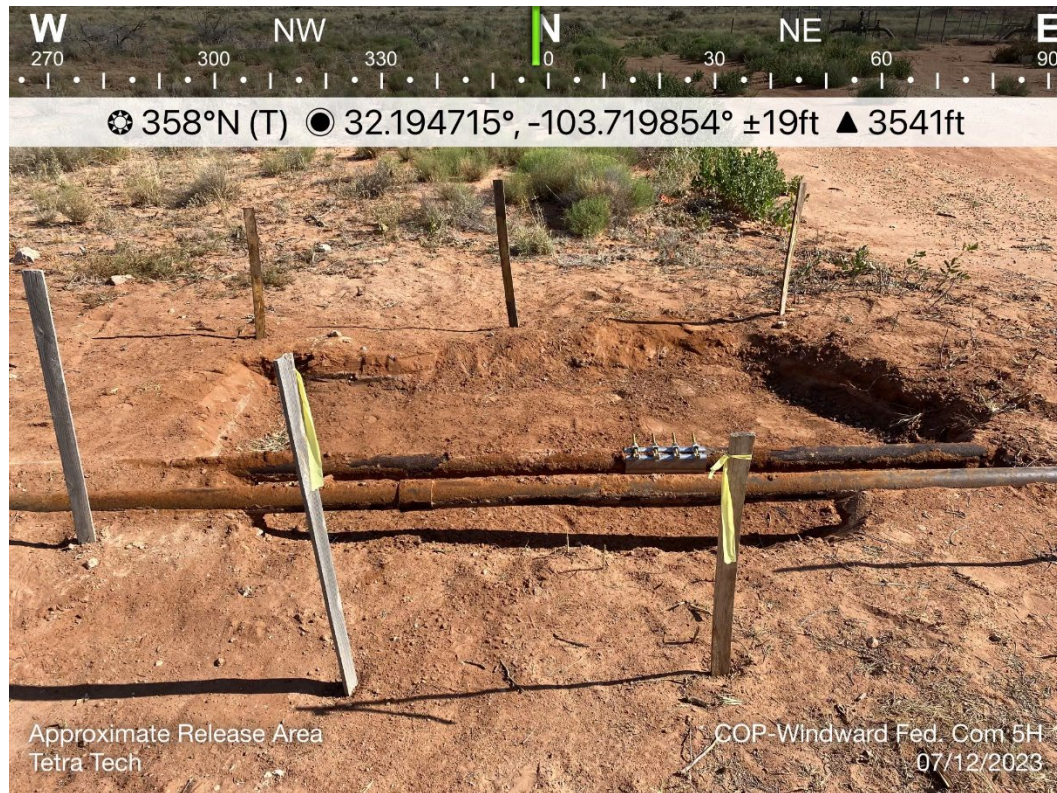
## **APPENDIX D**

# **Photographic Documentation**





TETRA TECH, INC. PROJECT NO. 212C-MD-03168	DESCRIPTION	View west of release extent. Initial response area and subsurface steel lines.	1
	SITE NAME	Windward Federal Com #005H Release	7/12/2023

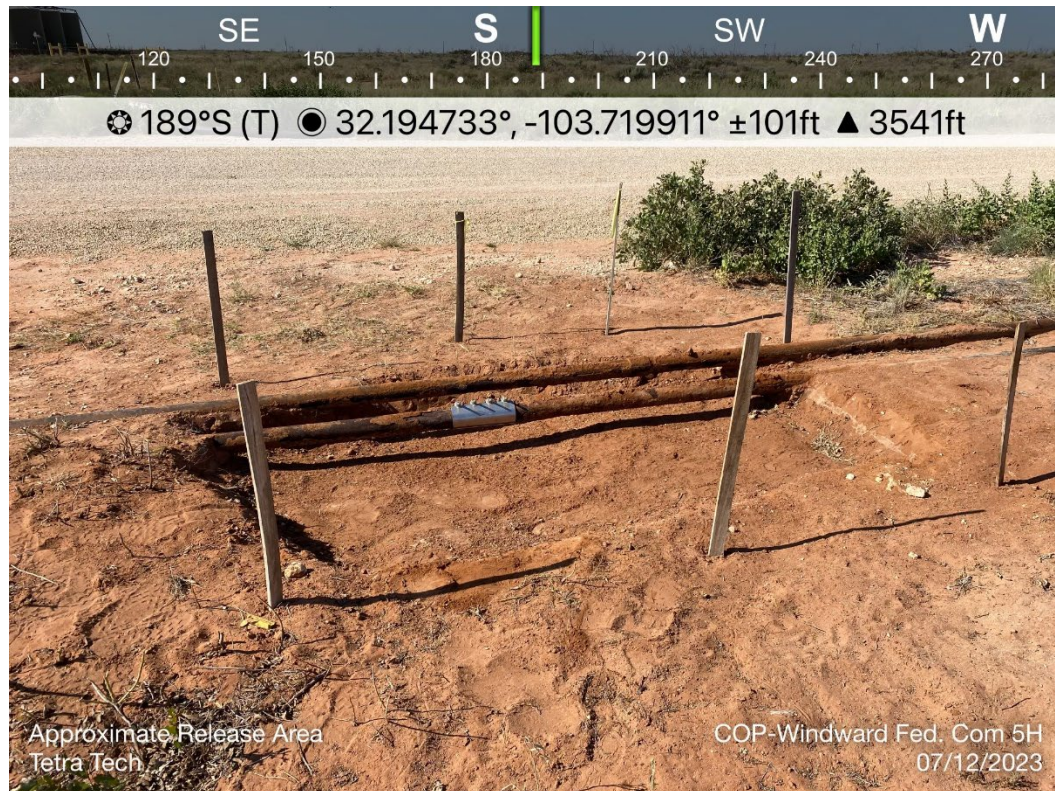


TETRA TECH, INC. PROJECT NO. 212C-MD-03168	DESCRIPTION	View north of release extent. Initial response area and subsurface steel lines.	2
	SITE NAME	Windward Federal Com #005H Release	7/12/2023



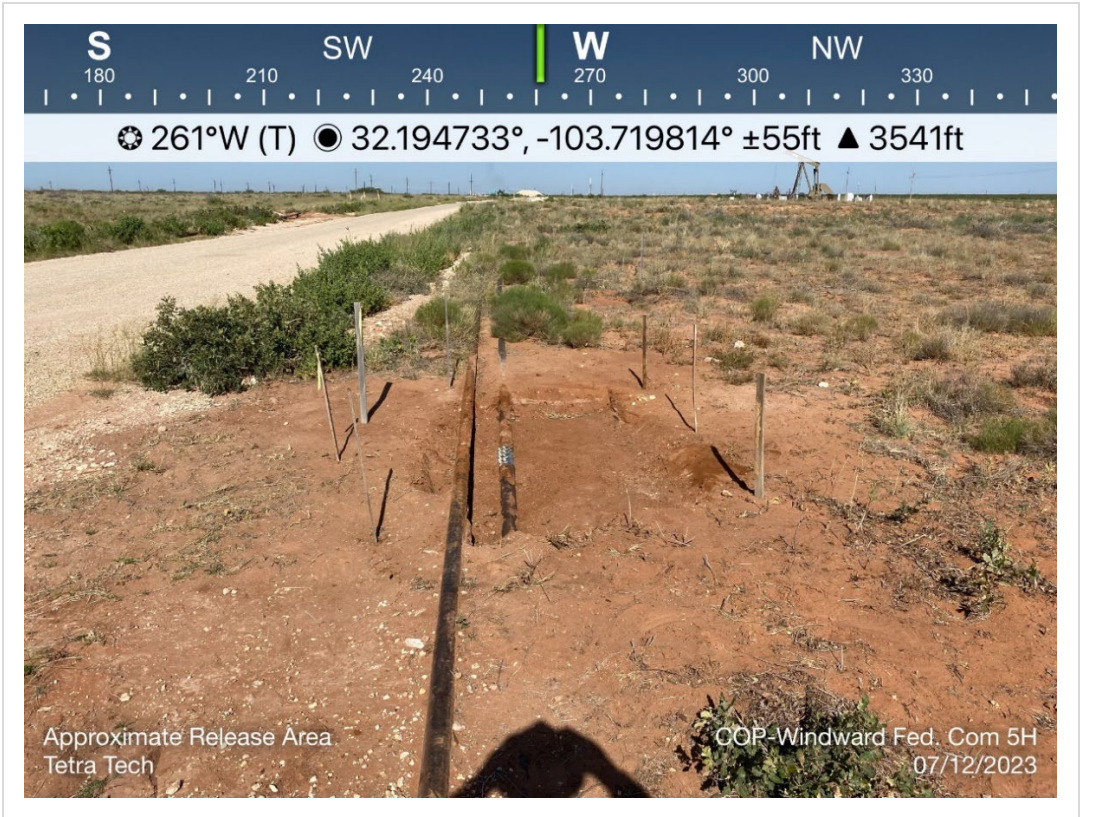


TETRA TECH, INC. PROJECT NO. 212C-MD-03168	DESCRIPTION	View east of release extent. Initial response area and subsurface steel lines.	3
	SITE NAME	Windward Federal Com #005H Release	7/12/2023



TETRA TECH, INC. PROJECT NO. 212C-MD-03168	DESCRIPTION	View south of release extent. Initial response area and subsurface steel lines.	4
	SITE NAME	Windward Federal Com #005H Release	7/12/2023





TETRA TECH, INC. PROJECT NO. 212C-MD-03168	DESCRIPTION	View west of release extent. Initial response area and subsurface steel lines.	5
	SITE NAME	Windward Federal Com #005H Release	7/12/2023





TETRA TECH, INC. PROJECT NO. 212C-MD-03168	DESCRIPTION	View north north-east. Excavated area and subsurface steel lines.	6
	SITE NAME	Windward Federal Com #005H Release	9/01/2023





TETRA TECH, INC. PROJECT NO. 212C-MD-03168	DESCRIPTION	View north-west. Excavated area and subsurface steel lines.	7
	SITE NAME	Windward Federal Com #005H Release	9/01/2023





TETRA TECH, INC. PROJECT NO. 212C-MD-03168	DESCRIPTION	View east north-east. Backfilled area and subsurface steel lines.	8
	SITE NAME	Windward Federal Com #005H Release	9/01/2023





TETRA TECH, INC. PROJECT NO. 212C-MD-03168	DESCRIPTION	View north north-east. Backfilled area and subsurface steel lines.	9
	SITE NAME	Windward Federal Com #005H Release	9/01/2023

## **APPENDIX E**

### **Laboratory Analytical Data**



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

---

July 17, 2023

CHRISTIAN LLULL

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WINDWARD FEDERAL COM 005H FLOW LINE RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 07/12/23 12:28.

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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received:	07/12/2023	Sampling Date:	07/12/2023
Reported:	07/17/2023	Sampling Type:	Soil
Project Name:	WINDWARD FEDERAL COM 005H FLOW	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03168	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

**Sample ID: SW - 1 (H233552-01)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/13/2023	ND	2.00	100	2.00	0.826	
Toluene*	<0.050	0.050	07/13/2023	ND	1.97	98.7	2.00	1.56	
Ethylbenzene*	<0.050	0.050	07/13/2023	ND	1.95	97.3	2.00	1.79	
Total Xylenes*	<0.150	0.150	07/13/2023	ND	5.91	98.6	6.00	1.44	
Total BTX	<0.300	0.300	07/13/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	464	16.0	07/13/2023	ND	416	104	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	07/13/2023	ND	204	102	200	1.38	
DRO >C10-C28*	70.0	10.0	07/13/2023	ND	199	99.6	200	4.84	
EXT DRO >C28-C36	24.9	10.0	07/13/2023	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	07/12/2023	Sampling Date:	07/12/2023
Reported:	07/17/2023	Sampling Type:	Soil
Project Name:	WINDWARD FEDERAL COM 005H FLOW	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03168	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

**Sample ID: SW - 2 (H233552-02)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/13/2023	ND	2.00	100	2.00	0.826		
Toluene*	<0.050	0.050	07/13/2023	ND	1.97	98.7	2.00	1.56		
Ethylbenzene*	<0.050	0.050	07/13/2023	ND	1.95	97.3	2.00	1.79		
Total Xylenes*	<0.150	0.150	07/13/2023	ND	5.91	98.6	6.00	1.44		
Total BTEX	<0.300	0.300	07/13/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	288	16.0	07/13/2023	ND	416	104	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	07/13/2023	ND	204	102	200	1.38	
DRO >C10-C28*	45.3	10.0	07/13/2023	ND	199	99.6	200	4.84	
EXT DRO >C28-C36	20.5	10.0	07/13/2023	ND					

Surrogate: 1-Chlorooctane 98.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	07/12/2023	Sampling Date:	07/12/2023
Reported:	07/17/2023	Sampling Type:	Soil
Project Name:	WINDWARD FEDERAL COM 005H FLOW	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03168	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

**Sample ID: SW - 3 (H233552-03)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/13/2023	ND	2.00	100	2.00	0.826	
Toluene*	<0.050	0.050	07/13/2023	ND	1.97	98.7	2.00	1.56	
Ethylbenzene*	<0.050	0.050	07/13/2023	ND	1.95	97.3	2.00	1.79	
Total Xylenes*	<0.150	0.150	07/13/2023	ND	5.91	98.6	6.00	1.44	
Total BTEX	<0.300	0.300	07/13/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	192	16.0	07/13/2023	ND	416	104	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	07/14/2023	ND	204	102	200	1.38	
DRO >C10-C28*	37.4	10.0	07/14/2023	ND	199	99.6	200	4.84	
EXT DRO >C28-C36	20.3	10.0	07/14/2023	ND					

Surrogate: 1-Chlorooctane 125 % 48.2-134

Surrogate: 1-Chlorooctadecane 138 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received:	07/12/2023	Sampling Date:	07/12/2023
Reported:	07/17/2023	Sampling Type:	Soil
Project Name:	WINDWARD FEDERAL COM 005H FLOW	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03168	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

**Sample ID: SW - 4 (H233552-04)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/13/2023	ND	2.00	100	2.00	0.826		
Toluene*	<0.050	0.050	07/13/2023	ND	1.97	98.7	2.00	1.56		
Ethylbenzene*	<0.050	0.050	07/13/2023	ND	1.95	97.3	2.00	1.79		
Total Xylenes*	<0.150	0.150	07/13/2023	ND	5.91	98.6	6.00	1.44		
Total BTEx	<0.300	0.300	07/13/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	160	16.0	07/13/2023	ND	416	104	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	07/13/2023	ND	204	102	200	1.38	
DRO >C10-C28*	45.9	10.0	07/13/2023	ND	199	99.6	200	4.84	
EXT DRO >C28-C36	16.9	10.0	07/13/2023	ND					

Surrogate: 1-Chlorooctane 116 % 48.2-134

Surrogate: 1-Chlorooctadecane 132 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	07/12/2023	Sampling Date:	07/12/2023
Reported:	07/17/2023	Sampling Type:	Soil
Project Name:	WINDWARD FEDERAL COM 005H FLOW	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03168	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

**Sample ID: FS - 1 (H233552-05)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/13/2023	ND	2.00	100	2.00	0.826		
Toluene*	<0.050	0.050	07/13/2023	ND	1.97	98.7	2.00	1.56		
Ethylbenzene*	<0.050	0.050	07/13/2023	ND	1.95	97.3	2.00	1.79		
Total Xylenes*	<0.150	0.150	07/13/2023	ND	5.91	98.6	6.00	1.44		
Total BTEx	<0.300	0.300	07/13/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	448	16.0	07/13/2023	ND	416	104	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	07/13/2023	ND	204	102	200	1.38	
DRO >C10-C28*	107	10.0	07/13/2023	ND	199	99.6	200	4.84	
EXT DRO >C28-C36	32.4	10.0	07/13/2023	ND					

Surrogate: 1-Chlorooctane 119 % 48.2-134

Surrogate: 1-Chlorooctadecane 143 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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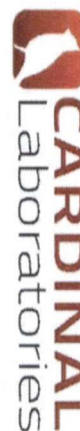
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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

[illegible]



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

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August 31, 2023

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: WINDWARD FEDERAL COM 005H FLOW LINE RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 08/31/23 12:00.

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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	08/31/2023	Sampling Date:	08/31/2023
Reported:	08/31/2023	Sampling Type:	Soil
Project Name:	WINDWARD FEDERAL COM 005H FLOW	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 03168	Sample Received By:	Dionica Hinojos
Project Location:	COP - LEA CO NM		

**Sample ID: FS - 1 ( 2' ) (H234736-01)**

BTX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/31/2023	ND	1.84	92.0	2.00	1.09	
Toluene*	<0.050	0.050	08/31/2023	ND	1.76	88.2	2.00	1.56	
Ethylbenzene*	<0.050	0.050	08/31/2023	ND	1.83	91.5	2.00	0.441	
Total Xylenes*	<0.150	0.150	08/31/2023	ND	5.52	92.1	6.00	0.0347	
Total BTX	<0.300	0.300	08/31/2023	ND					

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

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	08/31/2023	ND	368	92.0	400	16.0	

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	08/31/2023	ND	207	103	200	6.81	
DRO >C10-C28*	<10.0	10.0	08/31/2023	ND	210	105	200	6.02	
EXT DRO >C28-C36	<10.0	10.0	08/31/2023	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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\*=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





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(575) 393-2326 FAX (575) 393-2476

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[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 271827

CONDITIONS

Operator: COG PRODUCTION, LLC 600 W. Illinois Ave Midland, TX 79701	OGRID: 217955
	Action Number: 271827
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	None	1/16/2024