



December 18, 2024

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

**Re: Closure Report  
ConocoPhillips Company  
Gunner 8 Federal #008H Flowline  
Unit Letter M, Section 8, Township 26 South, Range 34 East  
Lea County, New Mexico  
Incident ID# NAPP2400930878**

Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips Company (ConocoPhillips) to assess a release from a flowline associated with the Gunner 8 Federal #008H (API No. 30-025-40309). The release footprint is located in Public Land Survey System (PLSS) Unit Letter M, Section 8, Township 26 South, and Range 34 East, in Lea County, New Mexico (Site). The approximate release point occurred at coordinates 32.052130°, -103.498346°, as shown on Figures 1 and 2.

## BACKGROUND

According to the C-141 Initial Report, the release was discovered on December 21, 2023, and was caused by faulty clamp on a poly water transfer line. Approximately 2.1934 barrels (bbls) of produced water were reported released. A vacuum truck was dispatched to recover freestanding fluids, and approximately 0.5 bbls of produced water were recovered. The release occurred off pad in pasture alongside the lease road, as shown in Figure 3. The New Mexico Oil Conservation Division (NMOCD) approved the initial C-141 on March 27, 2024, and subsequently assigned the release the Incident ID NAPP2400930878. The initial C-141 form is included in Appendix A.

## LAND OWNERSHIP

According to the NMOCD Oil and Gas Map, the Site is located on federal lands managed by the Bureau of Land Management (BLM). The BLM was provided a copy of the approved Work Plan for concurrence. Crisha Morgan with the BLM requested a cultural survey be performed as the release is outside of a previously surveyed space. ConocoPhillips complied with the BLM's request and provided the BLM with a copy of the Cultural Survey via email on September 27, 2024. On September 30, 2024, the archeology section of the BLM stated, "as far as archeology is concerned, the remediation is clear to proceed". Crisha Morgan verbally cleared the remediation on October 8, 2024, and on October 29, 2024, provided written clearance. All correspondence is included in Appendix B.

## CULTURAL PROPERTIES PROTECTION

Tetra Tech, on behalf of ConocoPhillips, contracted SWCA Environmental Consultants (SWCA) to conduct a pedestrian survey for the Gunner 8 Federal #008H Flowline covering 1.25-acres on the BLM-managed land in Lea County, New Mexico.

Tetra Tech

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

Tel 432.682.4559 Fax 432.682.3946 www.tetrattech.com

On September 4, 2024, the archeological survey was completed by SWCA. No archaeological sites, historic properties, or isolated occurrences were observed during the investigation. No additional investigation or treatment was recommended regarding the current undertaking. A copy of the NMCRIS Activity No. 156563 is included in Appendix B.

## SITE CHARACTERIZATION

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

According to the New Mexico Office of the State Engineers (NMOSE) reporting system, there are no water wells within an 800-meter (approximately 1/2-mile) radius of the site. According to the NMOSE, there is one well within 1.20 miles (1,935 meters) with a total well depth of 250 feet and a depth to water of 200 feet.

As the available water level information is from a well farther than 1/2-mile away from the site, ConocoPhillips elected to drill a boring to verify depth to groundwater. The proposed location of the depth to groundwater boring is located on BLM lands. Tetra Tech contacted Shelly Tucker of the BLM via email to obtain approval of the location. An *Application for Permit to Drill* (WD-07) was submitted to the NMOSE on April 18, 2024. Approval was granted by the NMOSE on April 29, 2024; a copy of the approved permit and BLM approval is included in Appendix B.

On May 16, 2024, ConocoPhillips contracted a licensed well drilling subcontractor to drill a groundwater determination borehole (DTW) to 105 feet bgs at the Gunner 8 Federal #008H well pad located 147 meters north of the release footprint. The borehole was temporarily set and screened using 2-inch PVC well materials. No water was present in the well during or after drilling. The well screen and casing were removed, and the borehole was plugged with 3/8-inch bentonite chips. The borehole coordinates are 32.053208°, -103.499466°, and the boring location is indicated in Figure 3. The site characterization data, boring log, and temporary well diagram are 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

Closure Report  
December 18, 2024

ConocoPhillips

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

## SITE ASSESSMENT

On February 6, 2024, Tetra Tech was onsite to conduct assessment activities on behalf of ConocoPhillips. Assessment activities included installing four (4) hand auger borings (AH-1 through AH-4) in the release area to total depths ranging from 1.5 to 2.5 feet bgs. Auger refusal was met at roughly between 1.5 and 2.5 feet bgs. Four (4) additional hand auger borings (AH-4 through AH-8) were installed along the perimeter of the release extent to 1-foot bgs each. Photographic documentation of the release area is presented in Appendix D. The sampling locations are presented in Figure 3.

Due to the dense subsurface lithology (caprock) beneath the footprint, vertical delineation was not achieved with the hand auger borings. Tetra Tech remobilized to the Site on February 28, 2024, and installed one (1) trench (T-1) to 10 feet bgs using a backhoe to evaluate the vertical extents of the release footprint.

On May 16, 2024, Tetra Tech remobilized to the Site to install two additional borings (BH-1 and BH-2) using an air rotary drill rig within the release footprint in the pasture to 25 feet bgs each to complete vertical delineation of the release extent. A total of twelve (12) soil samples were sent to Cardinal to be analyzed for chloride via Standard Method 4500Cl-B, TPH via EPA Method 8015M, and BTEX via EPA Method 8021B.

The laboratory analytical results from the February and May 2024 assessment sampling activities are summarized in Table 1. Both horizontal and vertical delineation were completed following the assessment activities. Analytical results associated with surface soil intervals (0-4 feet bgs) at AH-1, AH-2, BH-1, AH-3, T-1, AH-4 and BH-2 exceeded the reclamation limit for chloride (600 mg/kg). All other analytical results were below the applicable Site RRALs and reclamation limits.

A Remediation Work Plan dated June 12, 2024, was prepared based on the results of the 2024 release assessment activities and submitted to the NMOCD for approval. The Work Plan was conditionally approved by NMOCD on July 2, 2024. A copy of the regulatory correspondence is included as Appendix B.

## REMEDIATION ACTIVITIES AND CONFIRMATION SAMPLING

A 90-day extension request was submitted to the NMOCD on October 1, 2024. The NMOCD approved the extension on October 2, 2024, for a new due date of December 29, 2024. A copy of the extension request and approval is included in Appendix B.

From November 4 to November 7, 2024, Tetra Tech personnel were onsite to remediate the release as proposed in the approved Work Plan, including excavation, disposal, and backfill. The extent of impacted soils was confirmed with field soil screening data and excavated to depths ranging from 4 to 5 feet below surrounding grade. Photographs from the excavated areas prior to backfill are provided in Appendix D.

Prior to confirmation sampling, in accordance with Subsection D of 19.15.29.12 NMAC, the NMOCD was notified via the OCD portal on October 30, 2024, and November 6, 2024. A variance request was sent via email to NMOCD as the second C-141N was not within 48-hours. Scott Rogers with the NMOCD approved the variance request via email. Documentation of associated regulatory correspondence is included in Appendix B. On November 4 and November 6, 2024, Tetra Tech personnel were onsite for confirmation sampling. Confirmation floor and sidewall samples were collected for laboratory analysis to verify that the impacted materials were properly removed. Each confirmation sample laboratory analytical result was directly compared to the approved RRALs to demonstrate compliance.

Closure Report  
December 18, 2024

ConocoPhillips

All of the excavated material was transported offsite for proper disposal. Approximately one hundred and six (106) cubic yards of material were transported to the R360 Antelope Draw in Jal, New Mexico. Copies of the waste manifests are included in Appendix E.

Per the NMOCD approval of the Work Plan, confirmation samples were collected such that each sample (sidewall and floor) was representative of no more than 400 square feet of excavated area. A total of five (5) confirmation floor samples and four (4) confirmation sidewall samples were collected during the remedial activities. Confirmation sidewall sample locations were labeled with "SW"-#, confirmation floor sample locations were labeled with "FS"-#.

Initial confirmation soil sampling analytical results associated with FS-2 and FS-3 locations exceeded the Site RRALS for chloride of 20,000 mg/kg at 4 feet bgs. The excavation floors were deepened to 5 feet bgs, and iterative confirmation samples were collected to encompass the original sample locations that triggered removal (nomenclature defined in Table 2) post-additional excavation.

Final analytical results for the confirmation soil samples (floor and sidewalls) were below the respective RRALS for chloride, BTEX, and TPH. The results of the November 2024 confirmation sampling events are summarized in Table 2. Laboratory analytical data is included in Appendix F. Excavated areas, depths and confirmation sample locations are shown in Figure 4.

## RECLAMATION ACTIVITIES

Based on 19.15.29.13 NMAC, areas disturbed by the remediation have been reclaimed. Collected confirmation samples were placed into laboratory-provided sample containers, transferred under chain-of-custody, and analyzed within appropriate holding times by Cardinal. The soil samples were analyzed for TPH (GRO+DRO+MRO) by EPA Method 8015M, BTEX by EPA Method 8021B, and chlorides by SM4500Cl-B. The analytical results were directly compared to the reclamation requirements and established Site RRALS to demonstrate compliance. All final confirmation soil samples (floor and sidewall) were below the Site RRALS for chloride, TPH, and BTEX. Excavated areas, depths and confirmation sample locations are indicated in Figure 4. The results of the November 2024 confirmation sampling events are summarized in Table 2.

Once acceptable confirmation sample results were received, the excavation was backfilled with clean material to pre-release grade. In accordance with 19.15.29.12 NMAC, the reclaimed area contained a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by SM4500Cl-B. The soil cover included a top layer consisting of one foot of suitable material to establish vegetation at the site. The backfilled areas in the pasture were seeded following backfilling, to aid in revegetation. Based on the soils of the site, the BLM Seed Mix #2 was used for seeding and was planted in the amount specified in the pounds pure live seed (PLS) per acre. One (1) representative 5-point composite sample was collected from the backfill material used for the reclamation of the project site. Soil backfill composite sampling results are summarized in Table 3. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix F.

Site inspections will be performed annually to assess the revegetation progress and evaluate the site for the presence of primary or secondary noxious weeds. If noxious weeds are identified, the NMSLO will be contacted to determine an effective method for eradication. If the Site does not show revegetation after one growing season, the area will be reseeded as appropriate. Reclamation activities have been implemented in consultation with the BLM.



Closure Report  
December 18, 2024

ConocoPhillips

## CONCLUSION

ConocoPhillips respectfully requests closure of the release incident based on the confirmation sampling results and remediation activities performed. The final C-141 forms are enclosed in Appendix A. If you have any questions concerning the remediation activities for the Site, please call me at (512) 596-8201.

Sincerely,  
**Tetra Tech, Inc.**



Lisbeth Chavira  
Project Manager



Samantha K. Abbott, P.G.  
Senior Project Manager

cc:  
Mr. Jacob Laird – PBU, ConocoPhillips  
Ms. Crisha Morgan – BLM

Closure Report  
December 18, 2024

ConocoPhillips

## LIST OF ATTACHMENTS

### Figures:

- Figure 1 – Overview Map
- Figure 2 – Topographic Map
- Figure 3 – Approximate Release Extent and Site Assessment
- Figure 4 – Remediation Extent

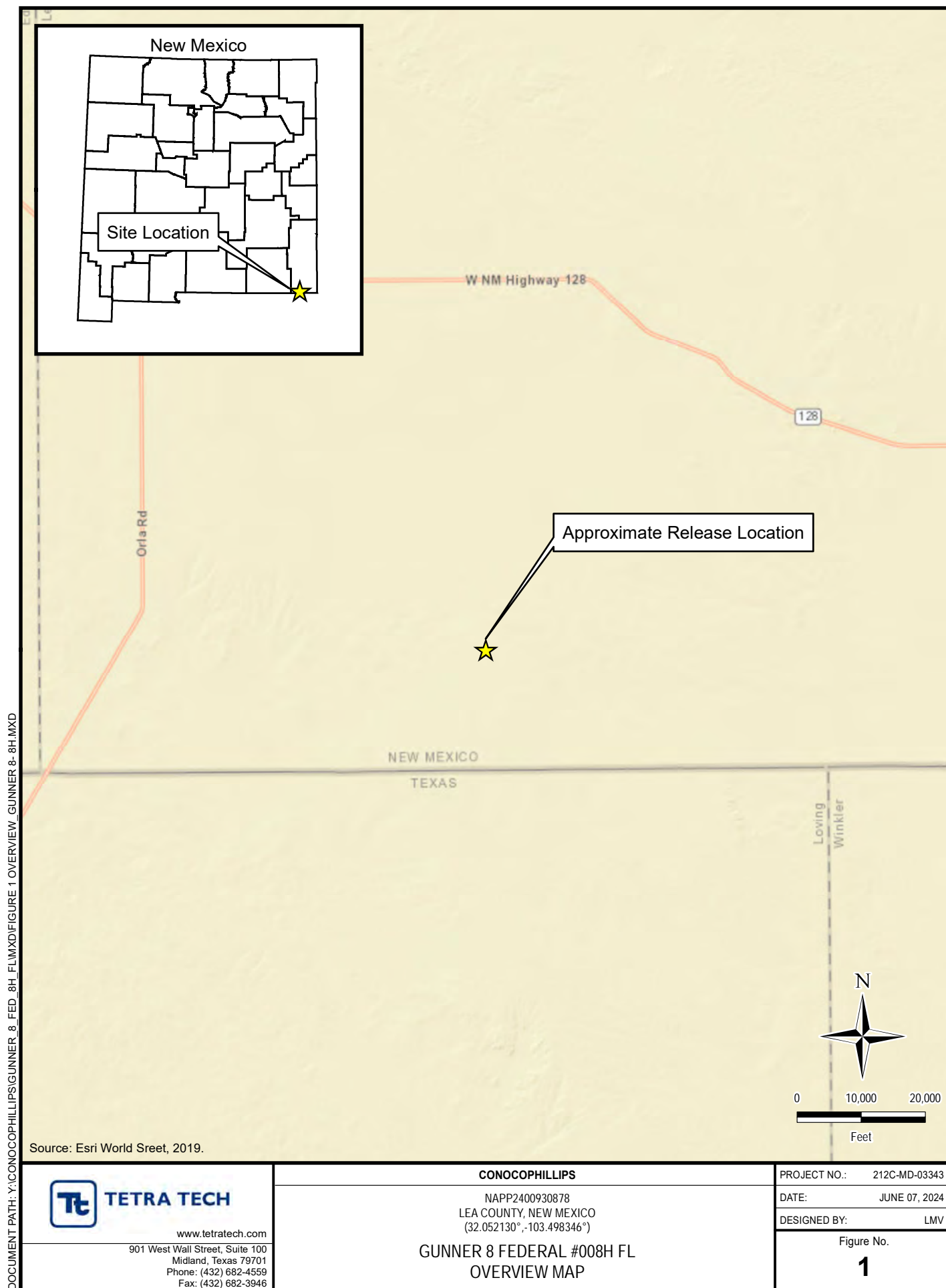
### Tables:

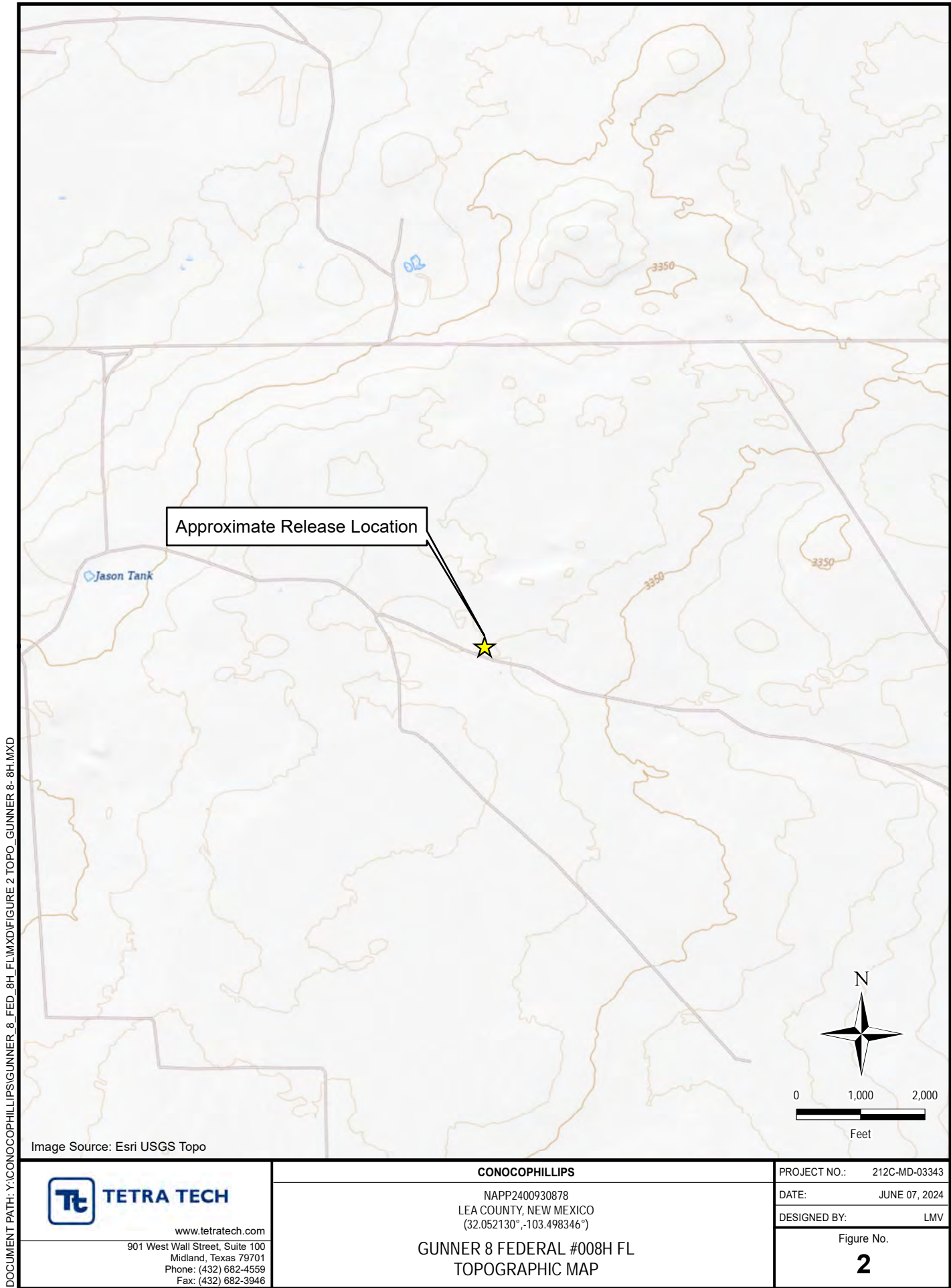
- Table 1 – Summary of Analytical Results – Soil Assessment
- Table 2 – Summary of Analytical Results – Soil Remediation
- Table 3 – Summary of Analytical Results – Intrepid Pit – Soil Backfill

### Appendices:

- Appendix A – C-141 Forms
- Appendix B – Regulatory Correspondence/Cultural Survey
- Appendix C – Site Characterization Data
- Appendix D – Photographic Documentation
- Appendix E – Waste Manifests
- Appendix F – Laboratory Analytical Data

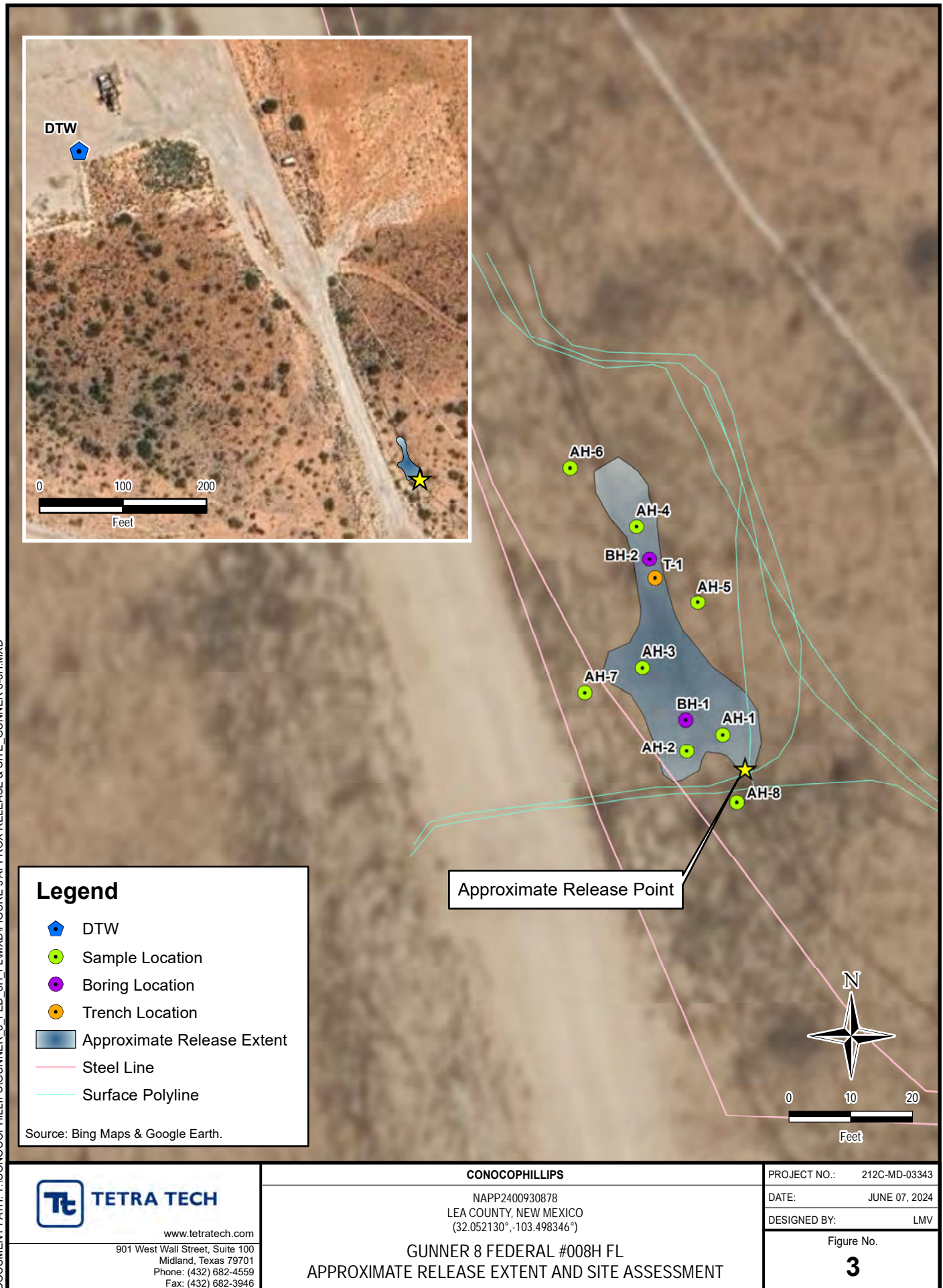
## **FIGURES**



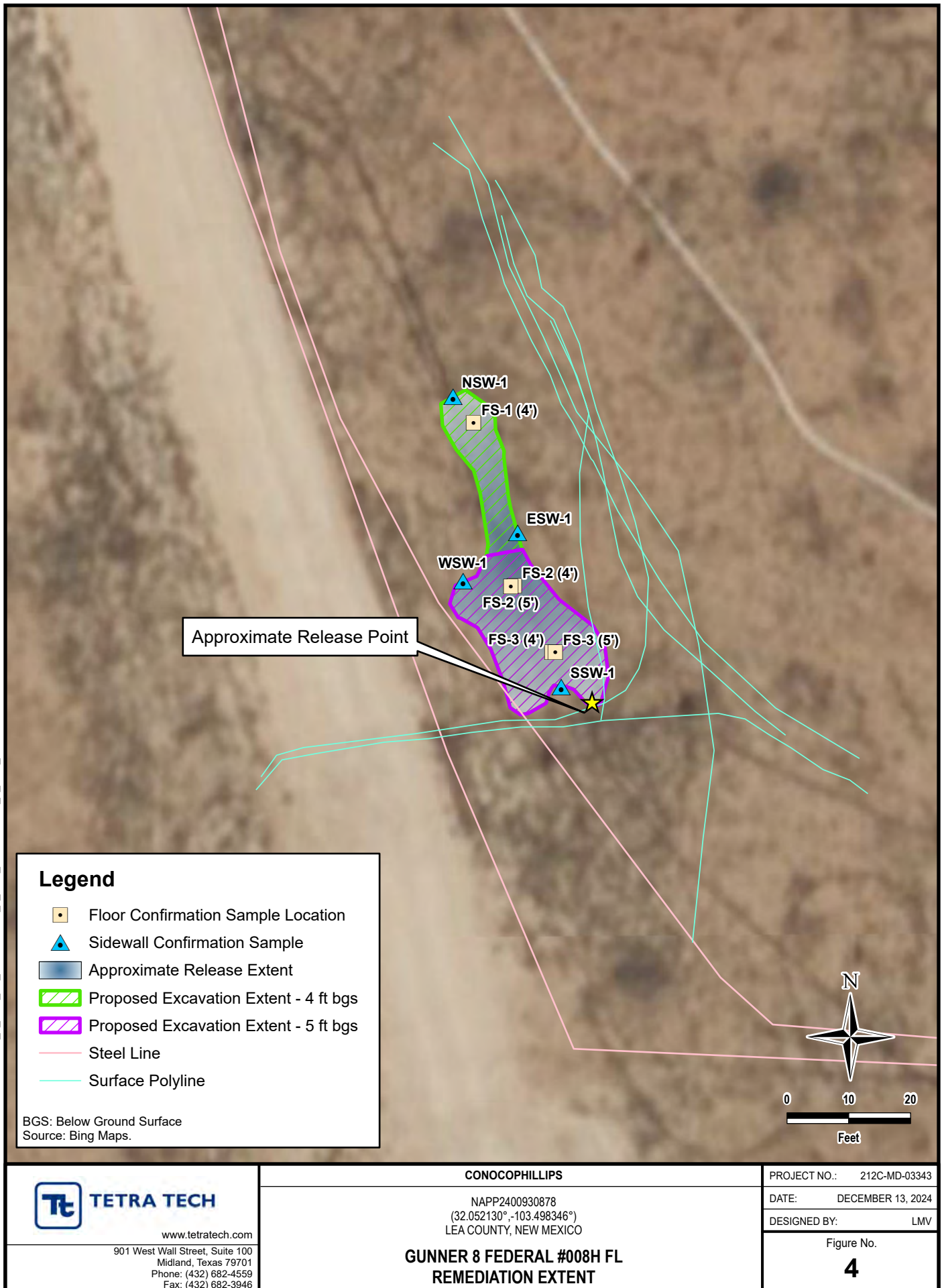




DOCUMENT PATH: Y:\CONOCOPHILLIPS\GUNNER\_8\_FED\_8H\_FL\MXD\FIGURE 3 APPROX RELEASE &amp; SITE\_GUNNER 8-8H.MXD







## **TABLES**

TABLE 1  
SUMMARY OF ANALYTICAL RESULTS  
SOIL ASSESSMENT- NAPP2400930878  
CONOCOPHILLIPS  
GUNNER 8 FEDERAL #008H FLOWLINE RELEASE  
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth	Field Screening Results		Chloride <sup>1</sup>		BTEX <sup>2</sup>										TPH <sup>3</sup>							
			Chloride	PID			Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		Total TPH	
		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	Q	(GRO+DRO+EXT DRO)
		Closure Criteria for Pasture / Off-Pad Soils 0-4' bgs:				600 mg/kg		< 10 mg/kg		--		--		< 50 mg/kg		--		--		--		100 mg/kg		
		Closure Criteria for Soils >4' bgs (GW > 100 ft):				20,000 mg/kg		< 10 mg/kg		--		--		< 50 mg/kg		--		--		--		2,500 mg/kg		
VERTICAL DELINEATION																								
AH-1	2/6/2024	0-1	-	-	13,800		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
		2-2.5	-	-	16,000		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
AH-2	2/6/2024	0-1	-	-	15,600		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
		2-2.5	-	-	10,000		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
BH-1	5/16/2024	3-4	-	-	11,100		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
		5-6	-	-	15,200		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
		7-8	-	-	6,660		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
		9-10	-	-	5,860		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
		14-15	1,160	-	944		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
		19-20	1,030	-	816		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
AH-3	2/6/2024	24-25	320	-	144		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
		0-1	-	-	14,800		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
T-1	2/28/2024	0-1	-	-	7,860		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
		2-3	-	-	10,200		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
		3-4	-	-	12,000		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
		5-6	-	-	11,000		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
		7-8	-	-	1,260		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
AH-4	2/6/2024	9-10	-	-	2,000		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		270		195		465	
		0-1	4,100	-	4,240		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
BH-2	5/16/2024	1-1.5	7,080	-	4,240		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
		3-4	-	-	10,000		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
		5-6	-	-	11,600		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
		7-8	-	-	5,200		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
		9-10	1,870	-	2,000		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
AH-5	2/6/2024	14-15	482	-	544		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
		HORIZONTAL DELINEATION																						
AH-5	2/6/2024	0-1	45.8	-	16		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
AH-6	2/6/2024	0-1	49.7	-	<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
AH-7	2/6/2024	0-1	59.6	-	<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		<10.0	
AH-8	2/6/2024	0-1	73.9	-	48		<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 SM4500CI-B  
2 Method 8021B  
3 Method 8015M

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

Shaded rows indicate intervals proposed for excavation.

TABLE 2  
SUMMARY OF ANALYTICAL RESULTS  
SOIL REMEDIATION - NAPP2400930878  
CONOCOPHILLIPS  
GUNNER 8 FEDERAL #008H FLOWLINE RELEASE  
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth	Chloride <sup>1</sup>		BTEX <sup>2</sup>										TPH <sup>3</sup>							
					Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		Total TPH (GRO+DRO+EXT DRO)	
															C <sub>6</sub> - C <sub>10</sub>		> C <sub>10</sub> - C <sub>28</sub>		> C <sub>28</sub> - C <sub>36</sub>			
		ft. bgs	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		
FS-1	11/4/2024	4	15,600		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
FS-2*	11/4/2024	4	22,000		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
FS-2 (5')	11/6/2024	5	3,400		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
FS-3*	11/4/2024	4	24,800		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
FS-3 (5')	11/6/2024	5	10,200		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
NSW-1	11/4/2024	-	320		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
SSW-1	11/4/2024	-	48		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
ESW-1	11/4/2024	-	80		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
WSW-1	11/4/2024	-	32		<0.050		<0.050		<0.050		<0.150		<0.300		<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 Remediation RRALs and Reclamation Requirements.**

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

Green highlight represents soil intervals that were removed during horizontal expansion of excavation sidewalls.

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

TABLE 3  
SUMMARY OF ANALYTICAL RESULTS  
INTREPID PIT - SOIL BACKFILL  
CONOCOPHILLIPS  
32.133182,-103.278928  
LEA COUNTY, NM

Sample ID	Sample Date	Chloride <sup>1</sup>		BTEX <sup>2</sup>								TPH <sup>3</sup>					
				Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO	DRO	EXT DRO	Total TPH
		mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	C <sub>6</sub> - C <sub>10</sub>	> C <sub>10</sub> - C <sub>28</sub>	> C <sub>28</sub> - C <sub>36</sub>	(GRO+DRO+EXT DRO)
BACKFILL - COMPOSITE	3/26/2024	32.0		<0.050		<0.050		<0.050		<0.150		<0.300		<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

## **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	NAPP2400930878
District RP	
Facility ID	fAPP2203943927
Application ID	

## Release Notification

### Responsible Party

Responsible Party	COG, Operating LLC	OGRID	229137
Contact Name	Jacob Laird	Contact Telephone	(575) 703-5482
Contact email	Jacob.Laird@ConocoPhillips.com	Incident # (assigned by OCD)	NAPP2400930878
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

### Location of Release Source

Latitude 32.0521 Longitude -103.4984  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Gunner 8 Federal 008H	Site Type	Flowline
Date Release Discovered	December 21, 2023	API# (if applicable)	

Unit Letter	Section	Township	Range	County
M	08	26S	34E	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) 2.1934	Volume Recovered (bbls) 0.5
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" 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

Release was caused by a faulty clamp on a poly water transfer line.  
The release was off pad. A vacuum truck was dispatched to recover freestanding fluids.  
Conoco will evaluate the site to determine if we may commence remediation immediately or delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

Incident ID	NAPP2400930878
District RP	
Facility ID	fAPP2203943927
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: <b>Brittany N. Esparza</b>	Title: <b>Environmental Technician</b>
Signature: 	Date: <b>1/9/2024</b>
email: <b>Brittany.Esparza@ConocoPhillips.com</b>	Telephone: <b>(432) 221-0398</b>
<b><u>OCD Only</u></b>	
Received by: _____	Date: _____

Received by OGD: 7/1/2024 8:20:02 AM										Spill Calculation - Subsurface Spill - Rectangle			Remediation Recommendation <i>Page 17 of 108</i>	
Convert Irregular shape into a series of rectangles				Length (ft.)	Width (ft.)	Average Depth (in.)	On/Off Pad (dropdown)	Soil Spilled-Fluid Saturation (%)	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)	Total Estimated Contaminated Soil, uncompacted, 25% (yd <sup>3</sup> )	Current Rule of Thumb - RMR Handover Volume, (yd <sup>3</sup> )		
Rectangle A				6.0	23.0	1.5	Off-Pad ✓	15.02%	3.07	0.46	0.80	750		
Rectangle B				17.0	16.0	2.5	Off-Pad ✓	15.02%	10.09	1.52	2.62			
Rectangle C				5.0	13.0	1.5	Off-Pad ✓	15.02%	1.45	0.22	0.38			
Rectangle D							✓		0.00		0.00			
Rectangle E							✓		0.00		0.00			
Rectangle F							✓		0.00		0.00			
Rectangle G							✓		0.00		0.00			
Rectangle H							✓		0.00		0.00			
Rectangle I							✓		0.00		0.00			
Total Subsurface Volume Released:										2.1934	3.80	BU		
Released to Imaging: 7/2/2024 1:54:13 PM														

**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

QUESTIONS

Action 301427

QUESTIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 301427
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2400930878
Incident Name	NAPP2400930878 GUNNER 8 FEDERAL 008H @ 0
Incident Type	Produced Water Release
Incident Status	Initial C-141 Received
Incident Facility	[fAPP2203943927] Gunner 8 Fed 8H - RT Btty

<b>Location of Release Source</b>	
Please answer all the questions in this group.	
Site Name	Gunner 8 Federal 008H
Date Release Discovered	12/21/2023
Surface Owner	Federal

<b>Incident Details</b>	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

<b>Nature and Volume of Release</b>	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure   Flow Line - Production   Produced Water   Released: 2 BBL   Recovered: 1 BBL   Lost: 1 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

**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

QUESTIONS, Page 2

Action 301427

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 301427
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	More info needed to determine if this will be treated as a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Unavailable.
Reasons why this would be considered a submission for a notification of a major release	Unavailable.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Brittany Esparza Title: Environmental Technician Email: brittany.Esparza@ConocoPhillips.com Date: 01/09/2024
--	---

**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**

QUESTIONS, Page 3

Action 301427

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 301427
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

**QUESTIONS****Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Not answered.
What method was used to determine the depth to ground water	Not answered.
Did this release impact groundwater or surface water	Not answered.
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Not answered.
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Not answered.
An occupied permanent residence, school, hospital, institution, or church	Not answered.
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Not answered.
Any other fresh water well or spring	Not answered.
Incorporated municipal boundaries or a defined municipal fresh water well field	Not answered.
A wetland	Not answered.
A subsurface mine	Not answered.
An (non-karst) unstable area	Not answered.
Categorize the risk of this well / site being in a karst geology	Not answered.
A 100-year floodplain	Not answered.
Did the release impact areas not on an exploration, development, production, or storage site	Not answered.

**Remediation Plan**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	No
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	



**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 301427

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 301427
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	3/27/2024

Incident ID	NAPP2400930878
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?	105 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" 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 checked="" 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 checked="" 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 checked="" 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 checked="" 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 checked="" 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 checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" 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	NAPP2400930878
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: Jacob Laird Title: Environmental Engineer, DBE

Signature: *Jacob Laird* Date: 6/12/2024

email: Jacob.Laird@conocophillips.com Telephone: 575.703.5482

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	NAPP2400930878
District RP	
Facility ID	
Application ID	

## Remediation Plan

**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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: Jacob LairdTitle: Environmental Engineer, DBESignature: *Jacob Laird*Date: 6/12/2024email: Jacob.Laird@conocophillips.comTelephone: 575.703.5482**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**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

QUESTIONS

Action 359846

QUESTIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 359846
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2400930878
Incident Name	NAPP2400930878 GUNNER 8 FEDERAL 008H @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received
Incident Facility	[fAPP2203943927] Gunner 8 Fed 8H - RT Btty

Location of Release Source	
Please answer all the questions in this group.	
Site Name	GUNNER 8 FEDERAL 008H
Date Release Discovered	12/21/2023
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure   Flow Line - Production   Produced Water   Released: 2 BBL   Recovered: 1 BBL   Lost: 1 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

**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**

QUESTIONS, Page 2

Action 359846

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:
	229137
	Action Number:
	359846
Action Type:	
[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)	

**QUESTIONS**

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	More info needed to determine if this will be treated as a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Unavailable.
Reasons why this would be considered a submission for a notification of a major release	Unavailable.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

**Initial Response**

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Brittany Esparza Title: Environmental Technician Email: brittany.Esparza@ConocoPhillips.com Date: 01/09/2024
--	---



**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**

QUESTIONS, Page 3

Action 359846

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 359846
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS****Site Characterization**

*Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
Did this release impact groundwater or surface water	No

**What is the minimum distance, between the closest lateral extents of the release and the following surface areas:**

A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Greater than 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	None
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

**Remediation Plan**

*Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

**Soil Contamination Sampling:** (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride (EPA 300.0 or SM4500 Cl B)	16000
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	465
GRO+DRO (EPA SW-846 Method 8015M)	465
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0

*Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.*

On what estimated date will the remediation commence	10/01/2024
On what date will (or did) the final sampling or liner inspection occur	10/03/2024
On what date will (or was) the remediation complete(d)	10/05/2024
What is the estimated surface area (in square feet) that will be reclaimed	537
What is the estimated volume (in cubic yards) that will be reclaimed	80
What is the estimated surface area (in square feet) that will be remediated	537
What is the estimated volume (in cubic yards) that will be remediated	80

*These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.*

*The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.*

**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**

QUESTIONS, Page 4

Action 359846

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:	229137
	Action Number:	359846
	Action Type:	[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS****Remediation Plan (continued)**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

**This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:**

(Select all answers below that apply.)

(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	Gunner 8 Fed 8H - RT Btty [fAPP2203943927]
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	Yes
OTHER (Non-listed remedial process)	Not answered.

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Brittany Esparza Title: Environmental Technician Email: brittany.Esparza@ConocoPhillips.com Date: 07/01/2024
--	---

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

**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

QUESTIONS, Page 5  
  
Action 359846

QUESTIONS (continued)

Operator:  COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:  229137
	Action Number:  359846
	Action Type:  [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

**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

QUESTIONS, Page 6  
Action 359846

QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 359846
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	{Unavailable;}

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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: \_\_\_\_\_ Date: \_\_\_\_\_

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: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

## **APPENDIX B**

### **Regulatory Correspondence**



**Chavira, Lisbeth**

---

**From:** Morgan, Crisha A <camorgan@blm.gov>  
**Sent:** Tuesday, October 29, 2024 9:18 AM  
**To:** Chavira, Lisbeth  
**Cc:** Llull, Christian  
**Subject:** Re: [EXTERNAL] (Work Plan) Gunner 8 Federal 008H (NAPP2400930878) 12-21-2023  
**Attachments:** 20241022 GUNNER 8 FEDERAL 8H.pdf

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

## Bureau of Land Management



Please consider this the BLM's approval to move forward.

Thank you,

**Crisha A. Morgan** | Certified - Environmental Protection Specialist | Program Officer|COR| Spills  
Coordinator| Orphaned & Idled Well POC Lead  
Bureau of Land Management | Carlsbad Field Office  
620 E. Greene Street Carlsbad, NM 88220  
Cell 575-200-8648 | Office 575-234-5987 | [camorgan@blm.gov](mailto:camorgan@blm.gov)



**WARNING:** This document is **FOR OFFICIAL USE ONLY (FOUO)**. It contains information that may be exempt from public release under the Freedom of Information Act (5.U.S.C. 552). It is to be controlled, stored, handled, transmitted, distributed, and disposed of in accordance with Department of Interior (DOI) policy relating to FOUO information and is not to be released to the public or other personnel who do not have need-to-know without prior approval of an authorized DOI official. **FOR OFFICIAL USE ONLY**

---

**From:** Chavira, Lisbeth <LISBETH.CHAVIRA@tetrattech.com>  
**Sent:** Tuesday, October 8, 2024 3:20 PM  
**To:** Morgan, Crisha A <camorgan@blm.gov>  
**Cc:** Llull, Christian <Christian.Llull@tetrattech.com>  
**Subject:** FW: [EXTERNAL] (Work Plan) Gunner 8 Federal 008H (NAPP2400930878) 12-21-2023

Hi Crisha,

Please see attached the BLM archaeology approval email for the Gunner 8 Federal 008H.  
As requested, a Sundry Notice was submitted for this release, the Sundry ID: 2815980.

If you have any questions or need additional information, please let me know.

Thank you in advance.

Lisbeth

**Lisbeth Chavira** | Geoscientist

Direct Mobile +1 (512) 596-8201 | 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

*This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.*



Please consider the environment before printing. [Read more](#)



**TETRA TECH**

---

**From:** Llull, Christian <Christian.Llull@tetrattech.com>

**Sent:** Wednesday, August 21, 2024 11:53 AM

**To:** Chavira, Lisbeth <LISBETH.CHAVIRA@tetrattech.com>; Abbott, Sam <Sam.Abbott@tetrattech.com>

**Subject:** FW: [EXTERNAL] (Work Plan) Gunner 8 Federal 008H (NAPP2400930878) 12-21-2023

Christian

---

**From:** Morgan, Crisha A <camorgan@blm.gov>

**Sent:** Wednesday, August 21, 2024 11:49 AM

**To:** Llull, Christian <Christian.Llull@tetrattech.com>

**Subject:** Re: [EXTERNAL] (Work Plan) Gunner 8 Federal 008H (NAPP2400930878) 12-21-2023

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

**Bureau of Land Management**



Christian,

I have reviewed this workplan and my Environmental Impact Review is as follows:

The only requirement for this release is an Arch survey as this release falls outside of the previously surveyed space. All other stipulations are cleared. This site will require BLM Seed mixture # 2 for sandy sites. I have attached a copy of the mixture for your records.

For on-lease actions, the operator will need to submit requests as a notice through the BLM system known as AFMSS before I can get you approval to off pad delineation/remediation and environmental impact review, or for the letter required by the State Engineer's Office for bore hole permitting. AFMSS will create an auto populated sundry ID number once the form has been submitted. Please shoot me that ID number so that I can easily find your submission within our system. These sundry forms need to be submitted as a **Notice of Intent (NOI)** under the **"OTHER"** tab. I have also included some AFMSS information below if you or the operator needs assistance creating a new AFMSS account for all BLM form submissions.

#### AFMSS Operator How To

If an operator does not already have an AFMSS account created, someone in the company can get an AFMSS account by submitting a helpdesk ticket here. <https://phd.blm.gov/>

Once they have access, they can find the well in the finder screen, select it and submit a sundry notice through AFMSS. This link will give them some video tutorials for the online submission. <http://www.ntc.blm.gov/krc/viewresource.php?courseID=869>

Please let me know if you run into any issues, or have any more questions.

Thank you,

**Crisha A. Morgan** | Certified - Environmental Protection Specialist | Program Officer | COR | Spills Coordinator | Orphaned & Idled Well POC Lead  
Bureau of Land Management | Carlsbad Field Office  
620 E. Greene Street Carlsbad, NM 88220  
Cell 575-200-8648 | Office 575-234-5987 | [camorgan@blm.gov](mailto:camorgan@blm.gov)



**WARNING:** This document is FOR OFFICIAL USE ONLY (FOUO). It contains information that may be exempt from public release under the Freedom of Information Act (5.U.S.C. 552). It is to be controlled, stored, handled, transmitted, distributed, and disposed of in accordance with Department of Interior (DOI) policy relating to FOUO information and is not to be released to the public or other personnel who do not have need-to-know without prior approval of an authorized DOI official. FOR OFFICIAL USE ONLY

---

**From:** Llull, Christian <[Christian.Llull@tetrattech.com](mailto:Christian.Llull@tetrattech.com)>

**Sent:** Wednesday, August 21, 2024 10:20 AM

**To:** Morgan, Crisha A <[camorgan@blm.gov](mailto:camorgan@blm.gov)>

**Subject:** [EXTERNAL] (Work Plan) Gunner 8 Federal 008H (NAPP2400930878) 12-21-2023

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

Crisha:

Attached for your review is the Remediation Work Plan for the Gunner 8 Federal 008H (NAPP2400930878). **(DOR 12-21-2023)**.

- This WP has been approved by NMOCD.

**Gunner 8 Federal #008H FL**

**ConocoPhillips**

**Lea County, New Mexico**

**DOR: 12/21/2023**

**INCIDENT ID: NAPP2400930878**

**Approximate Release Point: 32.052130°,-103.498346°**

**Landowner: BLM**

### **BACKGROUND**

- According to the information provided, the MSO arrived to find standing water near a poly line in the field caused by a leak on a 4" clamp.
  - The MSO shut the line in and retightened the poly line clamp.
  - A total of 2.2 bbls of water spilled, a vacuum truck recovered 0.5 bbls of standing water.
  - There was 1.7 bbls not recovered.
- This release occurred in the pasture on BLM Land.
- Tetra Tech conducted a site visit on January 11, 2024, where surface staining was observed.
- BU representatives shifted the flowlines out of the footprint to facilitate assessment activities.

### **ASSESSMENT AND WORK PLAN**

- Tetra Tech personnel were on-site on February 6, 2024, to conduct assessment activities.
- Shallow refusal was encountered due to the hard caprock layer encountered between 1.5 ft to 2.5 ft bgs.
- Four (4) hand auger borings (AH-1 through AH-4) were installed to a maximum depth of 2.5 ft bgs to delineate the release vertically.
  - Analytical results exceeded chloride RRALs at AH-1 through AH-4.
  - Vertical delineation was not reached.
- Four (4) hand auger borings (AH-5 through AH-6) were installed to 1 ft bgs to delineate the release horizontally.
  - Analytical results were below site RRALS of 600 mg/kg for chlorides and 100 mg/kg for TPH.
  - Horizontal Delineation was achieved.
- Tetra Tech remobilized on February 28, 2024, to conduct further assessment.
  - One trench (T-1) was installed to a maximum depth of 10 ft bgs.
  - Analytical results were exceeding for chloride and TPH at 10' ft bgs above site RRALS of 600 mg/kg for chlorides and 100 mg/kg for TPH.
- On May 16, 2024, Tetra Tech installed two (2) borings (BH-1 and BH-2) to a maximum depth of 25 feet bgs and depth to groundwater boring at 105' with an air rotatory rig.
  - Analytical results for BH-1 and BH-2 were exceeding reclamations RRALs for chloride (600 mg/kg) at the upper 4 ft.
  - Site RRALs are set at 20,000 mg/kg and 1,000 for TPH.
- Tetra Tech proposes to excavate to 4 ft BGS in the approximate release extent presented in Figure 5.

Let me know what you think,

Christian

**Christian Llull, P.G.** | Program Manager

Mobile +1 (512) 565-0190 | [christian.llull@tetrattech.com](mailto:christian.llull@tetrattech.com)

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

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

*This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.*



Please consider the environment before printing. [Read more](#)



---

**From:** Laird, Jacob <[Jacob.Laird@conocophillips.com](mailto:Jacob.Laird@conocophillips.com)>

**Sent:** Thursday, July 25, 2024 10:36 AM

**To:** Llull, Christian <[christian.llull@tetratech.com](mailto:christian.llull@tetratech.com)>

**Subject:** Fwd: (Work Plan) Gunner 8 Federal 008H (NAPP2400930878) 12-21-2023

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

Get [Outlook for iOS](#)

---

**From:** Esparza, Brittany <[Brittany.Esparza@conocophillips.com](mailto:Brittany.Esparza@conocophillips.com)>

**Sent:** Monday, July 1, 2024 8:23:01 AM

**To:** BLM\_NM\_CFO\_REALTY\_Spill <[blm\\_nm\\_cfo\\_realty\\_spill@blm.gov](mailto:blm_nm_cfo_realty_spill@blm.gov)>; Taylor, Shelly J <[sjtaylor@blm.gov](mailto:sjtaylor@blm.gov)>

**Cc:** Esparza, Brittany <[Brittany.Esparza@conocophillips.com](mailto:Brittany.Esparza@conocophillips.com)>; Laird, Jacob <[Jacob.Laird@conocophillips.com](mailto:Jacob.Laird@conocophillips.com)>; Fejervary Morena, Gustavo A <[G.Fejervary@conocophillips.com](mailto:G.Fejervary@conocophillips.com)>

**Subject:** (Work Plan) Gunner 8 Federal 008H (NAPP2400930878) 12-21-2023

To Whom it May Concern,

Please find the attached Work Plan for the COG Gunner 8 Federal 008H release that occurred on December 21, 2023. This Work Plan was uploaded to the NMOCD portal today.

Please let me know if you have any questions.

Thank you,

*Brittany N. Esparza*

**Brittany N. Esparza** | Environmental Technician, Permian | **ConocoPhillips**

**O:** 432-221-0398 | **C:** 432-349-1911 | 1CC-331 Midland, Texas

**Chavira, Lisbeth**

---

**From:** CFO\_Archeology, BLM\_NM <BLM\_NM\_CFO\_Archeology@blm.gov>  
**Sent:** Monday, September 30, 2024 11:13 AM  
**To:** Paisley DeFreese  
**Cc:** Chavira, Lisbeth  
**Subject:** Re: [EXTERNAL] NMCRIS 156563- Tetra Tech Inc-Gunner 8 Federal #008H FL

You don't often get email from blm\_nm\_cfo\_archeology@blm.gov. [Learn why this is important](#)

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

As far as archaeology is concerned, the remediation is clear to proceed.

Best,

Aaron

---

**From:** Paisley DeFreese <Paisley.DeFreese@swca.com>  
**Sent:** Friday, September 27, 2024 4:49 PM  
**To:** CFO\_Archeology, BLM\_NM <BLM\_NM\_CFO\_Archeology@blm.gov>  
**Cc:** Chavira, Lisbeth <LISBETH.CHAVIRA@tetrattech.com>  
**Subject:** [EXTERNAL] NMCRIS 156563- Tetra Tech Inc-Gunner 8 Federal #008H FL

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

Good Afternoon,

I just submitted the this report on behalf of Tetra Tech Inc. They requested to be CC'ed on the submittal to know when they can start remediation. I have sent this separate email to not share sensitive locational information.

Please respond with project approval when you have had a chance to review.

Thanks,

**Paisley DeFreese** | she, her, hers  
Associate Project Archaeologist/Permitting Coordinator  
\*Works 20 hours/week

**SWCA Environmental Consultants**

7770 Jefferson St NE, Suite 410  
Albuquerque, NM 87109  
Tel 505.254.1115 Fax 505.254.1116 C 575.740.9012



---

**From:** Paisley DeFreese  
**Sent:** Friday, September 27, 2024 4:43 PM  
**To:** CFO\_Archeology, BLM\_NM <BLM\_NM\_CFO\_Archeology@blm.gov>  
**Cc:** Desiree Christine Martinez <desiree.martinez@swca.com>  
**Subject:** NMCRIS 156563- Tetra Tech Inc-Gunner 8 Federal #008H FL

Good Afternoon,

SWCA is submitting this report on behalf of Tetra Tech Inc. Attached is the NIAF report and the project area shapefiles. Please let me know if there are any questions or if you need anything else.  
And if the client is approved to start remediation.

Thanks,

**Paisley DeFreese** | she, her, hers  
Associate Project Archaeologist/Permitting Coordinator  
\*Works 20 hours/week

**SWCA Environmental Consultants**

7770 Jefferson St NE, Suite 410  
Albuquerque, NM 87109  
Tel 505.254.1115 Fax 505.254.1116 C 575.740.9012





NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 6 5 6 3

HPD Log No(s).

Registration

Lead Agency: US Bureau of Land Management Carlsbad Field Office

Performing Agency: SWCA Environmental Consultants  
Activity ID: 92816  
Performing Agency Report No: 24-715

Other Agencies:

Report Recipient (Your Client): Tetra Tech Inc.

- Activity Types:
- ☐ Research Design
  - ☒ Archaeological Survey/Inventory
  - ☐ Architectural Survey/Inventory
  - ☐ Test Excavation
  - ☐ Monitoring
  - ☐ Collections/Non-Field Study
  - ☐ Compliance Decision
  - ☐ Literature Review Overview
  - ☐ Excavation
  - ☐ Ethnographic Study
  - ☐ Resource/Property Visit
  - ☐ Historic Structures Report
  - ☐ Other:

Total Survey Acreage: 1.25  
Total Tribal Acreage: 0.00  
Total Resources Visited: 0

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 6 5 6 3

HPD Log No(s).

Associate/Register Resources

Prefix	Number	Field Site/Other Number	In GIS	Resource Type	Collections Made?	Revisit
--------	--------	----------------------------	--------	---------------	-------------------	---------

## NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 6 5 6 3

HPD Log No(s).

## Report Details

Type of Report

**Type of Report:** Negative

Lead Agency

**Lead Agency:** US Bureau of Land Management Carlsbad Field Office

Lead Agency Report No.

**Report Number:**

Title of Report

**Title of Report:** A Class III Cultural Resources Survey for the Gunner 8 Federal #008H FL Inadvertent Release Remediation Project in Lea County, NM**Authors:** Andrew Carey and Josh Huck**Publication Type:** Report, Monograph, or Book

Description of Undertaking (what does the project entail?)

**Description:** Tetra Tech, Inc. contracted SWCA Environmental Consultants (SWCA) to conduct an intensive cultural resources pedestrian survey in support of the Gunner 8 Federal #008H FL inadvertent release remediation project in Lea County, New Mexico. The remediation process will require removing impacted sediments from the contaminated area and replacing them with clean soil. The inadvertent release area consists of 0.05 acres (0.02 ha) and is located approximately 29.9 kilometers (18.5 miles) southwest of Jal, located entirely on Bureau of Land Management (BLM) Carlsbad Field Office (CFO) lands in Lea County, New Mexico.

Dates of Investigation

**From:** 4-Sep-2024**To:** 4-Sep-2024

Report Date

**Report Date:** 27-Sep-2024

Performing Agency/Consultant

**Name:** SWCA Environmental Consultants**Principal Investigator:** Beau Murphy**Field Supervisor:** Josh Huck

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 6 5 6 3

HPD Log No(s).

Field Personnel Names: N/A  
Historian/Other: N/A

Performing Agency Report Number

Report Number: 24-715

Client/Customer (project proponent)

Name: Tetra Tech  
Contact: Lisbeth Chavira  
Address: 1500 City West, #1000  
Houston, TX 77042  
Phone: 512.596.8201

Client/Customer Project Number

Project Number:

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 6 5 6 3

HPD Log No(s).

Ownership & Location

Land Ownership Status (Must be indicated on Project Map)

Owner/Manager List:	Land Owner/Manager	Protocol	Acres Surveyed	Acres in APE
	US Bureau of Land Management Carlsbad Field Office	Class III	1.25	1.25

Total Survey Acreage: 1.25

Total Tribal Acreage: 0

Record Search(es)

Date of HPD/ARMS File Review: 23-Aug-2024

Date of Other Agency File Review:

Survey Data

Source Graphics: NAD 83

☒ USGS 7.5' (1:24,000) topo map

☐ Other Topo Map

Scale:

☒ GPS Unit <1M

☐ Aerial Photos

Other Source Graphic(s):

The following tables (b,c,& e) are calculated by the NMCRIS Map Service

USGS 7.5' Topographic Map(s)

Map Name	USGS Quad Code
Andrews Place, NM	32103-A4

County(ies)

County	FIPS
LEA	35023

Legal Description

Unplatted	Township (N/S)	Range (E/W)	Section
	T26S	R34E	8

Projected Legal Description

Nearest City or Town: Jal

Other Description: N/A

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 6 5 6 3

GIS

HPD Log No(s).

This page is left intentionally blank.

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 6 5 6 3

HPD Log No(s).

Methodology

Survey Field Methods

Intensity: 100% coverage

Configuration: ☒ Block Survey Units ☐ Linear Survey Units (l x y)

Other Survey Units:

Scope: All Resources

Coverage Method: ☒ Systematic Pedestrian Coverage Other Method:

Survey Interval (m): 15 Crew Size: 1

Fieldwork Dates From 4-Sep-2024 To 4-Sep-2024

Survey Person Hours: 2 Recording Person Hours: 0

Additional Narrative: A 100 ft clearance buffer was surveyed around the perimeter of the 0.05 acre spill for a total survey area of 1.25 acres. The entire survey area was accessible during fieldwork and successfully inventoried.

Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.)

**Environmental Setting:**The project area is within the Chihuahuan Basins and Playas (24a) U.S. Environmental Protection Agency Level III ecoregion (Griffith et al. 2006). The ecoregion is composed of deep depressions or grabens filled with sediment to form flat to rolling basins. Basins are either alluvial fans, internally drained basins, or river valleys internally drained with ephemeral streams. The geology underlying the project area consists of Holocene and middle Pleistocene eolian deposits along with Holocene and lower Pleistocene piedmont alluvial deposits. These alluvial deposits are from higher gradient tributaries bordering major stream valleys, alluvial veneers of the piedmont slope, and alluvial fans. (U.S. Geological Survey 2024). One soil type occurs in the survey area, Pyote soils and dune land (PY). These are sandy eolian deposits that are derived from sedimentary rock. (Natural Resources Conservation Service 2024).

The climate information for the survey area was compiled using the Jal, New Mexico, climate station (294346) data (period of record: March 1, 1919–June 10, 2016). Rainfall for the general project area was most abundant from May through October, averaging 3.63 centimeters (cm) (1.43 inches), with September having the heaviest average precipitation. Snowfall occurred from November through March, but was heaviest between December and February, with an average of 1.88 cm (0.74 inches); annual snowfall averages 8.89 cm (3.5 inches). Average temperatures were coldest in December at –1.56 degrees Celsius (29.2 degrees Fahrenheit) and warmest in July at 35.72 degrees Celsius (96.3 degrees Fahrenheit) (Western Regional Climate Center 2024).

The typical vegetation of the Desert shrub land: creosote bush, tarbush, yuccas, sandsage, viscid acacia, tasajillo, lechuguilla, mesquite, and ceniza. (Griffith et al. 2006). Plants observed during the survey include mesquite, creosote, and prickly pear. Many of the other typical grasses and plants were also collected prehistorically for subsistence and to provide material for non-subsistence use.



## NMCRIS Investigation Abstract Form (NIAF)

### NMCRIS Activity No. 1 5 6 5 6 3

### HPD Log No(s).

Wildlife in the area includes mule deer and coyotes. Also typical to the area are pronghorn, bobcat, badger, cottontail rabbit, black jackrabbit, nine-banded armadillo, peccary, and various species of field mice, skunks, and pack rat (Biota Information System of New Mexico 2024). Important animal species prehistorically included deer, jackrabbit, and cottontail rabbit. Prehistorically, bison were in the region during at least some periods. Bison, pronghorn, deer, and rabbit were important food resources for the prehistoric inhabitants of the region.

Biota Information System of New Mexico

2024 Database Query for Eddy County. Available at: <http://www.bison-m.org/>. Accessed July 2024.

Griffith, G. E., J. M. Omernik, M. M. McGraw, G. Z. Jacobi, C. M. Canavan, T. S.

Schrader, D. Mercer, R. Hill, and B. C. Moran

2006 Ecoregions of New Mexico. Color poster with map, descriptive text, summary tables, and photographs. Map scale 1:1,400,000. U.S. Geological Survey, Reston, Virginia.

Natural Resources Conservation Service

2024 Web Soil Survey. Available at: <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. Accessed September 2024.

U.S. Geological Survey

2003 New Mexico Resource Geographic Information System Program (NMBGMR500kGeology). Available at: <https://rgis.unm.edu/rgis6/>. Accessed September 2024.

Western Regional Climate Center

2024 New Mexico Climate Summaries. Climate Summary for Jal, New Mexico (COOP Station ID No. 294346). Available at: <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?nm4346>. Accessed Sept. 2024.

## NMCRIS Investigation Abstract Form (NIAF)

**NMCRIS Activity No. 1 5 6 5 6 3**

### Methodology

**HPD Log No(s).**

Percent Ground Visibility

**Ground Visibility:** 51-75%

**Condition of Survey Area:** The survey area is significantly disturbed by oil and gas infrastructure, including a graded access road, overhead powerlines, a pump station, and above-ground pipelines. Small undisturbed areas, particularly on the northern site, appear to be typical desert flats vegetated with grasses and forbs, mesquite, creosote, pencil cactus, and prickly pears.

Attachments (check all appropriate boxes)

- ✓ USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn (required)
- ✓ Copy of NMCRIS Map Check (required)
- ☐ LA Site Forms – new sites (with sketch map & topographic map) if applicable
- ☐ LA Site Forms (update) – previously recorded & unrelocated sites (first 2 pages minimum)
- ☐ Historic Cultural Property Inventory Forms, if applicable
- ☐ List and Description of Isolates, if applicable
- ☐ List and Description of Collections, if applicable

Other Attachments

- ✓ Photographs and Log
- ✓ Other attachments **Describe:** BLM FAR From

## NMCRIS Investigation Abstract Form (NIAF)

**NMCRIS Activity No. 1 5 6 5 6 3**
**HPD Log No(s).**

### Cultural Resource Findings

#### Investigation Results

**Archaeological Sites Discovered and Registered:** 0

**Archaeological Sites Discovered and NOT Registered:** 0

**Previously Recorded Archaeological Sites Revisited (site update form required):** 0

**Previously Recorded Archaeological Sites Not Relocated (site update form required):** 0

**Total Archaeological Sites (visited & recorded):** 0

**Total Isolates Recorded:** 0

✓ Non-  
Selective Isolate Recording

**HCPI Properties Discovered and Registered:** 0

**HCPI Properties Discovered And NOT Registered:** 0

**Previously Recorded HCPI Properties Revisited:** 0

**Previously Recorded HCPI Properties NOT Relocated:** 0

**Total HCPI Properties (visited & recorded, including acequias):** 0

**If No Cultural  
Resources Found,  
Discuss Why:**

No cultural resources were found in the project area, and this is due to the size of the survey area (1.25 acres) and in an area that has been heavily disturbed by oil production activities.

#### Management Summary

**Summary:** SWCA Environmental Consultants (SWCA) was contracted by Tetra Tech to conduct an intensive pedestrian cultural resources survey for the Gunner 8 Federal #008H FL Inadvertent Release Remediation Project in Lea County, NM. The survey included the 0.05-acre spill area, and a 30-meter (m) (100-foot) cultural resources buffer surrounding the spill site on all sides. The total survey area is 1.25 acres (0.51 hectare [ha]).

In accordance with Section 106 of the National Historic Preservation Act (Public Law 89-665), as amended, a cultural resources inventory was completed to locate, identify, and record any cultural resources that may be affected within the area of potential effects (APE) of the proposed project, and provide recommendations regarding their eligibility for listing in the National Register of Historic Places (NRHP).

No archaeological sites, historic properties, or isolated manifestations (IM) were observed during the current investigation. SWCA does not recommend additional investigation during the current undertaking. If subsurface cultural materials are encountered during the project, all work should cease, and the BLM CFO should be notified immediately.

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 1 5 6 5 6 3

HPD Log No(s).

Attachments

Documents

Attachment Type	Description	Name	File Type	Size	Upload Date	Upload By
Report/Manuscript	Negative Report	NMCRIS 156563	PDF			Paisley DeFreese



**Figure 1. Survey area overview, from western boundary showing spill area, facing east (Frame 5989).**



**Figure 2. Detail showing oil spill, facing west (Frame 1652).**





**Figure 3. Survey area overview, from northern boundary, facing south (Frame 1287).**



**Figure 4. Project overview, from southern boundary showing oil pump in background, facing northeast (Frame 0945).**



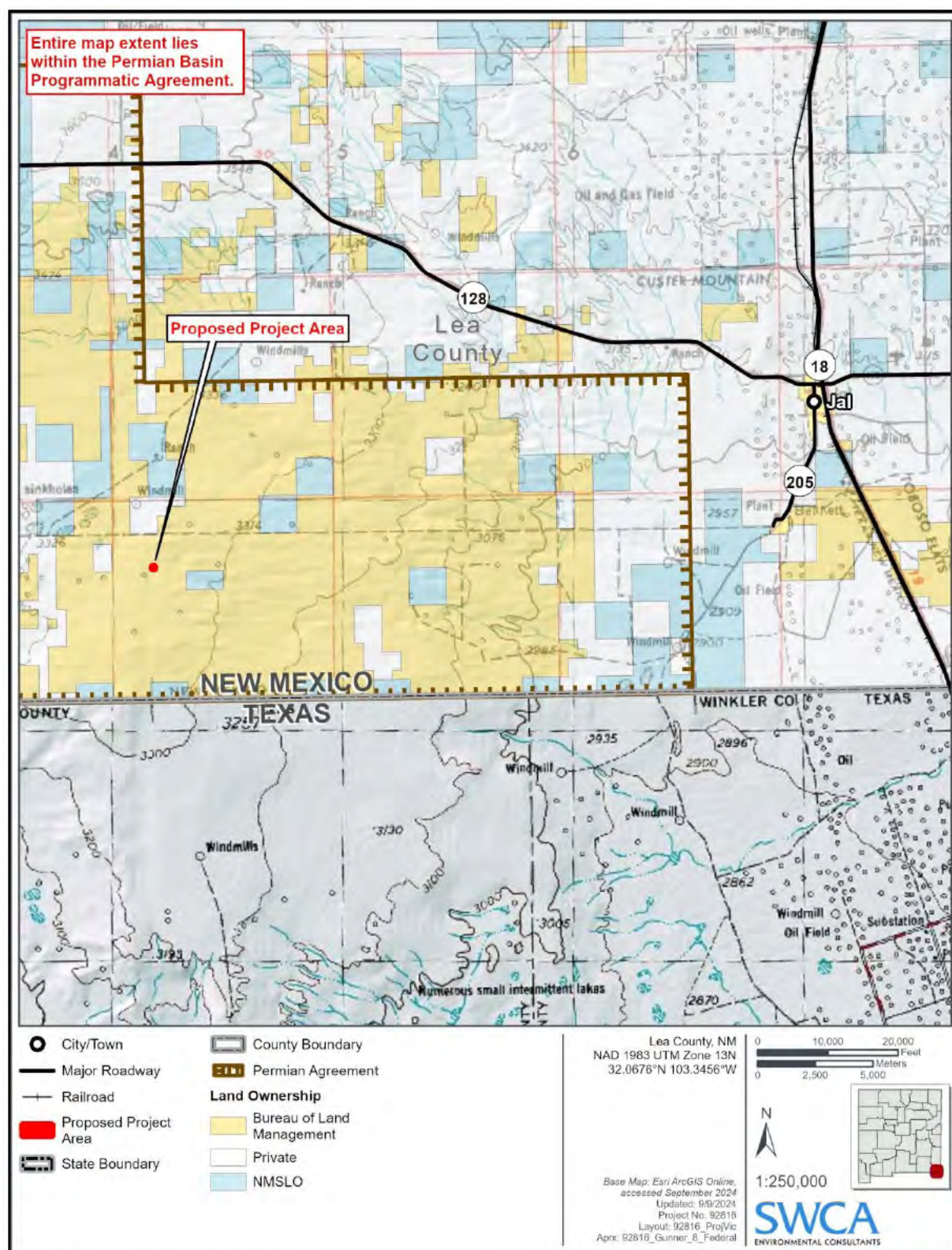


Figure 5. Project Vicinity Map.



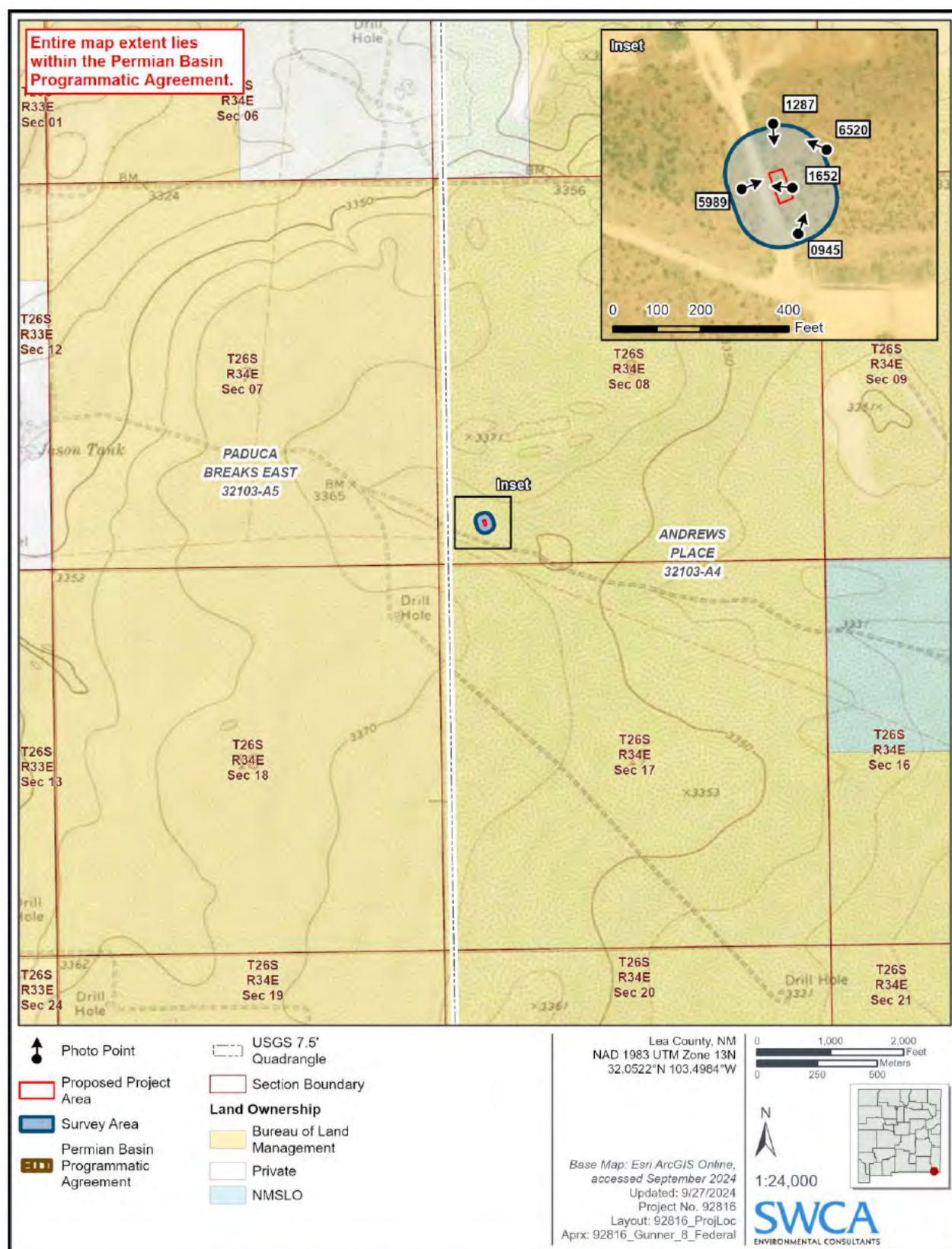


Figure 6. Project Location Map with Cultural Resources.

Table 1. Locational Information for Project Overview Photos within the Survey Area

Photo number	Photo Description	UTM Coordinates for Site Centroid (NAD83, Zone 13)	
		Easting	Northing
Frame 6520	Project overview, from eastern boundary, facing northwest	641795	3547234
Frame 5989	project overview, from western boundary showing spill area, facing east	641737	3547206
Frame 1652	Detail showing oil spill, facing west	641771	3547207
Frame 1287	Project overview, from northern boundary, facing south	641758	3547251
Frame 0945	project overview, from southern boundary showing oil pump in background, facing northeast	641776	3547175

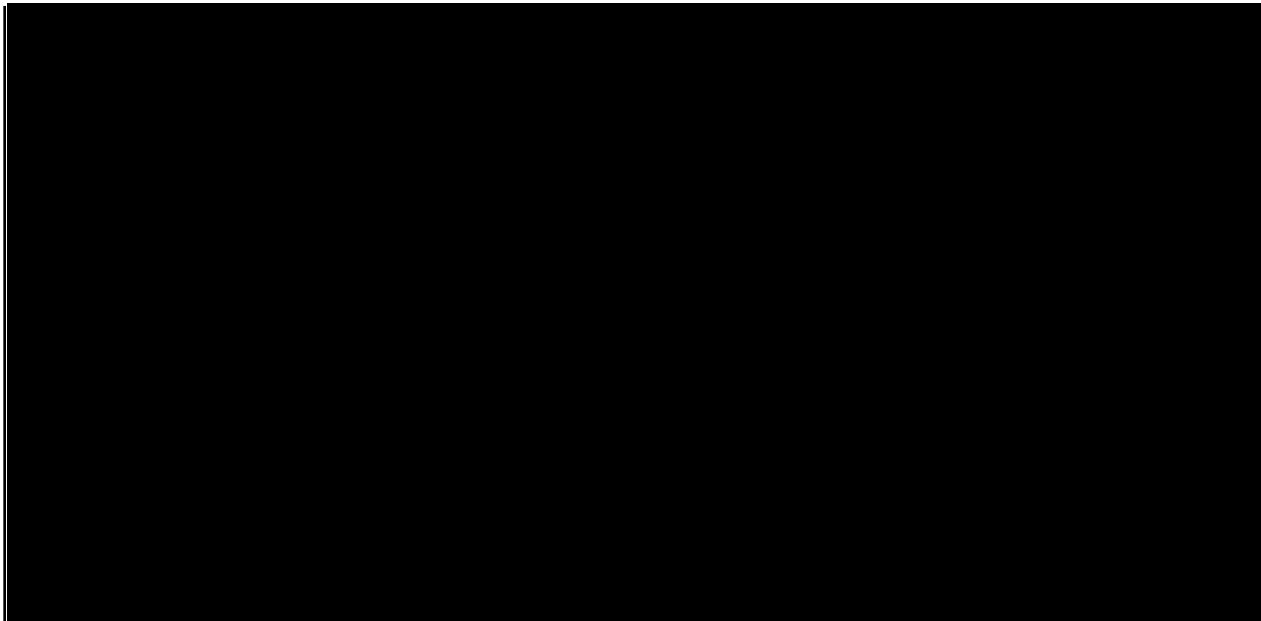


Figure 7. NMCRIS records search of survey area (pink), screenshot. Brown and yellow polygons represent previous surveys in the area. Red and tan polygons represent previously recorded archaeological sites.

Form 8151-3  <b>United States</b> <b>Department of the Interior</b> <b>Bureau of Land Management</b>		<b>INFORMATION</b> <b>REQUIREMENT</b> <b>APPROVED</b> <b>OMB NO. 1024-0037</b>
<b>FIELDWORK AUTHORIZATION REQUEST</b>		<b>For BLM Use Only</b>
<small>To Conduct Specific Cultural Resource Work under the Authority of a Cultural Resource Use Permit Issued by the Bureau of Land Management Pursuant to Sec. 302 (b) of P. L. 94-579, October 21, 1976, 43 USC 1732 Sec. 4 of P. L. 96-95, October 31, 1979, 16 USC, 470cc</small>		
<b>1. Permit Number and Date Issued</b> 110-2920-23-IIIH (7/3/2024-12/31/2026)	<b>2. Name of Permittee</b> SWCA Environmental Consultants	
<b>3. Mailing Address and Telephone Number</b> <div style="display: flex; justify-content: space-between;"> <div style="width: 60%;">           Address:    SWCA Environmental Consultants                                7770 Jefferson St NE, Suite 410                                Albuquerque, NM 87109         </div> <div style="width: 35%; text-align: right;">           Telephone [(xxx) xxx-xxxx]: (505) 254-1115         </div> </div>		
<b>4. Nature of Cultural Resources Work Proposed (if Consultation Work, Identify Client and Project)</b> Archaeological survey of the Gunner 8 Federal #008H FL inadvertent release with at least a 100ft buffer around the release area.		
<b>5. Location of Proposed Work (Include Map)</b> <b>a. Description of Public Lands Involved</b> 26S 32E08	<b>b. Identification of Cultural Resource(s) Involved (if applicable)</b> N/A	
<b>6. Period During Which Work Will Be Conducted</b> From [mm/dd/yy]: 9/4/24	To [mm/dd/yy]: 9/4/24	
<b>7. Name of Individual(s) Responsible for Planning and Supervising Fieldwork and Approving Report, Evaluations, and Recommendations</b> Paisley DeFreese (PM)		
<b>8. Signature</b> <i>Paisley DeFreese</i>	<b>9. Date [mm/dd/yy]:</b> 8/29/24	
<b>10. Approved</b>  <div style="text-align: center;"> <i>Aaron Whaley</i>              (Authorized Officer)           </div>	<b>11. Date [mm/dd/yy]:</b> 9/3/24	
Submit one copy of each request, by mail, FAX, or in person to the Field Office Manager in the BLM Field Office with administrative jurisdiction over the public lands involved.		

**Figure 8. BLM Field Authorization Form.**

Mike A. Hamman, P.E.  
State Engineer



Roswell Office  
1900 WEST SECOND STREET  
ROSWELL, NM 88201

**STATE OF NEW MEXICO  
OFFICE OF THE STATE ENGINEER**

Trn Nbr: 759161  
File Nbr: C 04827

Apr. 29, 2024

CHRISTIAN LLULL  
TETRA TECH ON BEHALF OF CONOCO PHILLIPS  
8911 N CAPITAL OF TEXAS HIGHWAY  
BLDG.2 SUITE 2319  
AUSTIN, TX 78759

Greetings:

Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

- \* If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.
- \* If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.
- \* The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.
- \* This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website [www.ose.state.nm.us](http://www.ose.state.nm.us).

Sincerely,

A handwritten signature in black ink, appearing to read "Rodolfo Chavez".

Rodolfo Chavez  
(575) 622-6521

Enclosure

explore



File No. C-04827 POD1

## NEW MEXICO OFFICE OF THE STATE ENGINEER



## WR-07 APPLICATION FOR PERMIT TO DRILL

## A WELL WITH NO WATER RIGHT

(check applicable boxes):

For fees, see State Engineer website: <http://www.ose.state.nm.us/>

Purpose:	<input type="checkbox"/> Pollution Control And/Or Recovery	<input type="checkbox"/> Ground Source Heat Pump
<input type="checkbox"/> Exploratory Well*(Pump test)	<input type="checkbox"/> Construction Site/Public Works Dewatering	<input checked="" type="checkbox"/> Other(Describe):
<input type="checkbox"/> Monitoring Well	<input type="checkbox"/> Mine Dewatering	
A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.		
*New Mexico Environment Department-Drinking Water Bureau (NMED-DWB) will be notified if a proposed exploratory well is used for public water supply.		
<input type="checkbox"/> Check here if the borehole is anything other than vertical (directional boring or angle boring) and include a schematic of your design.		
<input checked="" type="checkbox"/> Temporary Request - Requested Start Date: 5/1/2024		Requested End Date: 5/1/2025
Plugging Plan of Operations Submitted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Note: if there is known artesian conditions, contamination or high mineral content at the drilling location, include the borehole log or a well log from an existing well at that location. If this information is not submitted, check box and attach form WD-09 to this form. ☐

## 1. APPLICANT(S)

Name: Tetra Tech on behalf of ConocoPhillips	Name:
Contact or Agent: check here if Agent <input type="checkbox"/> Christian Llull	Contact or Agent: check here if Agent <input type="checkbox"/>
Mailing Address: 8911 N. Capital of Texas Highway Bldg. 2 Suite 2310	Mailing Address:
City: Austin	City:
State: Zip Code: Texas 78759	State: Zip Code:
Phone: 512-565-0190 <input type="checkbox"/> Home <input checked="" type="checkbox"/> Cell Phone (Work):	Phone: <input type="checkbox"/> Home <input type="checkbox"/> Cell Phone (Work):
E-mail (optional): christian.llull@tetrattech.com	E-mail (optional):

OSE DIT APR 19 2024 AM 11:24

FOR OSE INTERNAL USE

Application for Permit, Form WR-07, Rev 02/29/2024

File No.: C-04827	Trn. No.: 759161	Receipt No.: 2-46814
Trans Description (optional):		
Sub-Basin: CUB	PCW/LOG Due Date: 4/29/25	

Page 1 of 3

**2. WELL(S)** Describe the well(s) applicable to this application.

<b>Location Required:</b> Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), <u>or</u> Latitude/Longitude (Lat/Long - WGS84). District II (Roswell), District V (Aztec) and District VII (Cimarron) customers, provide a PLSS location in addition to above.			
<input type="checkbox"/> NM State Plane (NAD83) (Feet) <input type="checkbox"/> UTM (NAD83) (Meters) <input checked="" type="checkbox"/> Lat/Long (WGS84) (to the nearest 1/10 <sup>th</sup> of second)			
<input type="checkbox"/> NM West Zone <input type="checkbox"/> Zone 12N <input type="checkbox"/> NM East Zone <input type="checkbox"/> Zone 13N <input type="checkbox"/> NM Central Zone			
Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	<b>Provide if known:</b> -Public Land Survey System (PLSS) (Quarters or Halves, Section, Township, Range) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
DTW-GUNNER C-04827 POD1	32.053208	-103.499466	Unit Letter M, Section 8, Township 26 South, Range 34 East
<b>NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)</b> Additional well descriptions are attached: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No      If yes, how many _____			
Other description relating well to common landmarks, streets, or other:			
Well is on land owned by: BLM			
<b>Well Information:</b> <b>NOTE: If more than one (1) well needs to be described, provide attachment.</b> Attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, how many _____			
Approximate depth of well (feet): 105		Outside diameter of well casing (inches): 2 in.	
Driller Name: John Scarborough, Inc.		Driller License Number: WD1188	

**3. ADDITIONAL STATEMENTS OR EXPLANATIONS**

OSE DIT APR 19 2024 AM 11:24

Drilling temporary monitoring well to determine depth to groundwater.

The well will be installed on an active pad on BLM land. BLM was emailed on 3/26/2024 for access approval. BLM approved the DTW location on 4/3/2024 (attached).

FOR OSE INTERNAL USE

Application for Permit, Form WR-07 Version 02/29/2024

File No.: C-04827 POD1

Trn No.: 759161

Page 2 of 3



**4. SPECIFIC REQUIREMENTS:** The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

<b>Exploratory*:</b> Is proposed well a future public water supply well? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> NO If Yes, an application must be filed with NMED-DWB, concurrently. <input type="checkbox"/> Include a description of any proposed pump test, if applicable.	<b>Pollution Control and/or Recovery:</b> <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for the pollution control or recovery operation. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The annual diversion amount. <input type="checkbox"/> The annual consumptive use amount. <input type="checkbox"/> The maximum amount of water to be diverted and injected for the duration of the operation. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> The method of measurement of water produced and discharged. <input type="checkbox"/> The source of water to be injected. <input type="checkbox"/> The method of measurement of water injected. <input type="checkbox"/> The characteristics of the aquifer. <input type="checkbox"/> The method of determining the resulting annual consumptive use of water and depletion from any related stream system. <input type="checkbox"/> Proof of any permit required from the New Mexico Environment Department. <input type="checkbox"/> An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	<b>Construction De-Watering:</b> <input type="checkbox"/> Include a description of the proposed dewatering operation, <input type="checkbox"/> The estimated duration of the operation, <input type="checkbox"/> The maximum amount of water to be diverted, <input type="checkbox"/> A description of the need for the dewatering operation, and, <input type="checkbox"/> A description of how the diverted water will be disposed of. <b>Ground Source Heat Pump:</b> <input type="checkbox"/> Include a description of the geothermal heat exchange project, <input type="checkbox"/> The number of boreholes for the completed project and required depths. <input type="checkbox"/> The time frame for constructing the geothermal heat exchange project, and, <input type="checkbox"/> The duration of the project. <input type="checkbox"/> Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	<b>Mine De-Watering:</b> <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for mine dewatering. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The source(s) of the water to be diverted. <input type="checkbox"/> The geohydrologic characteristics of the aquifer(s). <input type="checkbox"/> The maximum amount of water to be diverted per annum. <input type="checkbox"/> The maximum amount of water to be diverted for the duration of the operation. <input type="checkbox"/> The quality of the water. <input type="checkbox"/> The method of measurement of water diverted. <input type="checkbox"/> The recharge of water to the aquifer. <input type="checkbox"/> Description of the estimated area of hydrologic effect of the project. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. <input type="checkbox"/> A description of the methods employed to estimate effects on surface water rights and underground water rights. <input type="checkbox"/> Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.
---	--	---	---

(\* if exploration or monitoring drilling activity is required by NMED, then you must also submit the NMED Work Plan)

#### ACKNOWLEDGEMENT

I, We (name of applicant(s)),

CHRISTIAN LULL

Print Name(s)

affirm that the foregoing statements are true to the best of (my,our) knowledge and belief.

Applicant Signature

Applicant Signature

**ACTION OF THE STATE ENGINEER**

This application is:

☒ approved

☐ partially approved

☐ denied

USE DIT APR 19 2024 AM 11:23

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 29th day of April 20 24, for the State Engineer,

MIKE A. HAMMAN, P.E.

State Engineer

By: K. Parekh  
Signature

KASHYAP PAREKH

Print

Title: WATER RESOURCE MANAGER I  
Print



FOR OSE INTERNAL USE

Application for Permit, Form WR-07 Version 02/29/2024

File No: C-04827 P001

Trn No.: 759161

Page 3 of 3



NEW MEXICO STATE ENGINEER OFFICE  
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL

- 17-16 Construction of a water well by anyone without a valid New Mexico Well Driller License is illegal, and the landowner shall bear the cost of plugging the well by a licensed New Mexico well driller. This does not apply to driven wells, the casing of which does not exceed two and three-eighths inches outside diameter.
- 17-1A Depth of the well shall not exceed the thickness of the valley fill.
- 17-4 No water shall be appropriated and beneficially used under this permit.
- 17-6 The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable and approved by the state engineer. The well shall be plugged with an office of the state engineer approved sealant for use in the plugging of non-artesian wells. The well driller shall cut the casing off at least four (4) feet below ground surface and fill the open hole with at least two vertical feet of approved sealant. The driller must fill or cover any open annulus with sealant. Once the sealant has cured, the well driller or well owner may cover the seal with soil. A Plugging Report for said well shall be filed with the Office of the State Engineer in a District Office within 30 days of completion of the plugging.

Trn Desc: C 04827 POD1

File Number: C 04827

Trn Number: 759161

page: 1

NEW MEXICO STATE ENGINEER OFFICE  
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

- 17-7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.
- 17-B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig, provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.
- 17-C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record.  
The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.
- 17-P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.
- 17-Q The State Engineer retains jurisdiction over this permit.
- 17-R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.

Trn Desc: C 04827 POD1

File Number: C 04827

Trn Number: 759161

page: 2

NEW MEXICO STATE ENGINEER OFFICE  
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

LOG The Point of Diversion C 04827 POD1 must be completed and the Well Log filed on or before 04/29/2025.

IT IS THE PERMITTEE'S RESPONSIBILITY TO OBTAIN ALL AUTHORIZATIONS AND PERMISSIONS TO DRILL ON PROPERTY OF OTHER OWNERSHIP BEFORE COMMENCING ACTIVITIES UNDER THIS PERMIT.

ACTION OF STATE ENGINEER

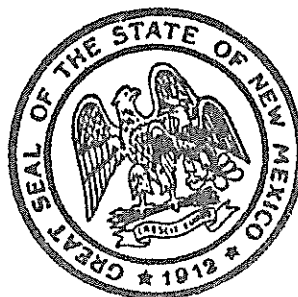
Notice of Intention Rcvd:	Date Rcvd. Corrected:
Formal Application Rcvd: 04/19/2024	Pub. of Notice Ordered:
Date Returned - Correction:	Affidavit of Pub. Filed:

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 29 day of Apr A.D., 2024

Mike A. Hamman, P.E., State Engineer

By: K. Parekh  
KASHYAP PAREKH



Trn Desc: C 04827 POD1

File Number: C 04827  
Trn Number: 759161

page: 3

# OFFICE OF THE STATE ENGINEER/INTERSTATE STREAM COMMISSION – ROSWELL OFFICE

OFFICIAL RECEIPT NUMBER: 2 - 46814 DATE: 4/19/20 FILE NO.: MW  
 TOTAL: 5.00 RECEIVED: Five \*7/100 DOLLARS CHECK NO.: 3699 CASH:         
 PAYOR: Tetra Tech ADDRESS: 8911 W. Capital of Texas CITY: Austin STATE: TX  
 ZIP: 78759 RECEIVED BY:       

INSTRUCTIONS: Indicate the number of actions to the left of the appropriate type of filing. Complete the receipt information. **Original** to payor; **pink** copy to Program Support/ASD; and **yellow** copy for Water Rights. If a mistake is made, void the original and all copies and submit to Program Support/ASD as part of your daily deposit.

## A. Ground Water Filing Fees

- |   |   |           |
|---|---|-----------|
| <input type="checkbox"/> 1.             | Change of Ownership of Water Right  | \$ 2.00   |
| <input type="checkbox"/> 2.             | Application to Appropriate or Supplement Domestic 72-12-1 Well  | \$ 125.00 |
| <input type="checkbox"/> 3.             | Application to Repair or Deepen 72-12-1 Well  | \$ 75.00  |
| <input type="checkbox"/> 4.             | Application for Replacement 72-12-1 Well  | \$ 75.00  |
| <input type="checkbox"/> 5.             | Application to Change Purpose of Use 72-12-1 Well   | \$ 75.00  |
| <input type="checkbox"/> 6.             | Application for Stock Well/Temp. Use  | \$ 5.00   |
| <hr/>                                   |   |           |
| <input type="checkbox"/> 7.             | Application to Appropriate Irrigation, Municipal, or Commercial Use   | \$ 25.00  |
| <input type="checkbox"/> 8.             | Declaration of Water Right  | \$ 1.00   |
| <input type="checkbox"/> 9.             | Application for Additional Point of Diversion Non 72-12-1 Per Well  | \$ 25.00  |
| <input type="checkbox"/> 10.            | Application to Change Place or Purpose of Use Non 72-12-1 Well  | \$ 25.00  |
| <input type="checkbox"/> 11.            | Application to Change Point of Diversion and Place and/or Purpose of Use from Surface Water to Ground Water | \$ 50.00  |
| <input type="checkbox"/> 12.            | Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Ground Water  | \$ 50.00  |
| <input type="checkbox"/> 13.            | Application to Change Point of Diversion of Non 72-12-1 Well  | \$ 25.00  |
| <input type="checkbox"/> 14.            | Application to Repair or Deepen Non 72-12-1 Well  | \$ 5.00   |
| <hr/>                                   |   |           |
| <input checked="" type="checkbox"/> 15. | Application for Test, Expl. Observ. Well  | \$ 5.00   |
| <input type="checkbox"/> 16.            | Application for Extension of Time   | \$ 25.00  |
| <input type="checkbox"/> 17.            | Proof of Application to Beneficial Use  | \$ 25.00  |
| <input type="checkbox"/> 18.            | Notice of Intent to Appropriate   | \$ 25.00  |

## B. Surface Water Filing Fees

- |                              |  |           |
|------------------------------|--|-----------|
| <input type="checkbox"/> 1.  | Change of Ownership of a Water Right   | \$ 5.00   |
| <input type="checkbox"/> 2.  | Declaration of Water Right   | \$ 10.00  |
| <input type="checkbox"/> 3.  | Amended Declaration  | \$ 25.00  |
| <input type="checkbox"/> 4.  | Application to Change Point of Diversion and Place and/or Purpose of Use from Surface Water to Surface Water | \$ 200.00 |
| <input type="checkbox"/> 5.  | Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Surface Water  | \$ 200.00 |
| <input type="checkbox"/> 6.  | Application to Change Point of Diversion   | \$ 100.00 |
| <input type="checkbox"/> 7.  | Application to Change Place and/or Purpose of Use  | \$ 100.00 |
| <input type="checkbox"/> 8.  | Application to Appropriate   | \$ 25.00  |
| <input type="checkbox"/> 9.  | Notice of Intent to Appropriate  | \$ 25.00  |
| <input type="checkbox"/> 10. | Application for Extension of Time  | \$ 50.00  |
| <input type="checkbox"/> 11. | Supplemental Well to a Surface Right   | \$ 100.00 |
| <input type="checkbox"/> 12. | Return Flow Credit   | \$ 100.00 |
| <input type="checkbox"/> 13. | Proof of Completion of Works   | \$ 25.00  |
| <input type="checkbox"/> 14. | Proof of Application of Water to Beneficial Use  | \$ 25.00  |
| <input type="checkbox"/> 15. | Water Development Plan   | \$ 100.00 |
| <input type="checkbox"/> 16. | Declaration of Livestock Water Impoundment   | \$ 10.00  |
| <input type="checkbox"/> 17. | Application for Livestock Water Impoundment  | \$ 10.00  |

## C. Well Driller Fees

- |                             |   |          |
|-----------------------------|---|----------|
| <input type="checkbox"/> 1. | Application for Well Driller's License            | \$ 50.00 |
| <input type="checkbox"/> 2. | Application for Renewal of Well Driller's License | \$ 50.00 |
| <input type="checkbox"/> 3. | Application to Amend Well Driller's License       | \$ 50.00 |

## D. Reproduction of Documents

- |                          |                 |          |
|--------------------------|-----------------|----------|
| <input type="checkbox"/> | @ 0.25¢         | \$ _____ |
| <input type="checkbox"/> | Map(s) @ \$3.00 | \$ _____ |

## E. Certification

## F. Other

## G. Comments:

Fedex

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**All fees are non-refundable.**



**STATE OF NEW MEXICO**  
**OFFICE OF THE STATE ENGINEER**  
**ROSWELL**

**Mike A. Hamman, P.E.**  
State Engineer

**DISTRICT II**  
1900 West Second St.  
Roswell, New Mexico 88201  
Phone: (575) 622-6521  
Fax: (575) 623-8559

April 23, 2024

Tetra Tech Inc. on behalf of Conoco Phillips  
8911 N. Capital of Texas Highway, Bldg 2, Suite 2310  
Midland, TX 79701


RE: Well Plugging Plan of Operations for well No C-4827-POD1

Greetings:

Enclosed is your copy of the Well Plugging Plan of Operations for the above referenced well subject to the attached Conditions of Approval. The proposed method of operation is found to be acceptable and in accordance with the Rules and Regulations Governing Well Driller Licensing; Construction, Repair and Plugging of Wells 19.27.4 NMAC adopted June 30, 2017 by the State Engineer. subject to the attached Conditions of Approval.

Within 30 days after the well is plugged, the well driller is required to file a complete plugging record with the OSE and the permit holder.

Sincerely,

  
\_\_\_\_\_  
Kashyap Parekh  
Water Resources Manager I





**STATE OF NEW MEXICO**  
**OFFICE OF THE STATE ENGINEER**  
**ROSWELL**

1900 West Second St.  
 Roswell, New Mexico 88201  
 Phone: (575) 622-6521  
 Fax: (575) 623- 8559

Applicant has identified a well, listed below, to be plugged. John Scarborough Drilling Inc. (WD-1188) will perform the plugging.

Permittee: Tetra Tech Inc on behalf of Conoco Phillips  
 NMOSE Permit Number: C-4827-POD1

NMOSE File	Casing diameter (inches)	Well depth (feet bgl)	Approximate static water level (feet bgl)	Latitude	Longitude
C-4827-POD1	2.0	105	Unknown	32.053208°	103.49946°

**Specific Plugging Conditions of Approval for Well located in Lea County.**

1. Water well drilling and well drilling activities, including well plugging, are regulated under 19.27.4 NMAC, which requires any person engaged in the business of well drilling within New Mexico to obtain a Well Driller License issued by the New Mexico Office of the State Engineer (NMOSE). Therefore, the firm of a New Mexico licensed Well Driller shall perform the well plugging.
2. Theoretical volume of sealant required for abandonment of the 2.0 inch diameter (I.D.) casing is approximately 17.12 gallons. Total minimum volume of necessary sealant shall be calculated upon sounding the actual pluggable depth of well, which is estimated at 105 feet below ground surface (b.g.s.).
3. The cement-bentonite slurry (bentonite powder) shall be mixed using a maximum of 5.2 gallons water per 94-lb sack of Type I/II Portland cement **PLUS** 0.65 gallons per 1% increase in bentonite up to a maximum 6% bentonite by dry weight ratio.
4. The bentonite shall be hydrated separately with its required increments of water prior to being mixed into the cement slurry.
5. Placement of the sealant within the wells shall be by pumping through a tremie pipe extended to near well bottom and kept below top of the slurry column as the well is plugged from bottom-upwards in a manner that displaces the standing water column.

6. Should cement "shrinks-back" occur in the well, use of a tremie for topping off is required for cement placement deeper than 20 feet below land surface or if water is present in the casing. The approved sealant for topping off is identified in condition 3. of these Specific Conditions of Approval.
7. Any open annulus encountered surrounding the casing shall also be sealed by the placement of the approved sealant. When plugging shallow wells with no construction or environmental concerns, and if the well record on a well to be plugged shows a proper 20-foot annular seal, a plugging plan can propose the use of clean fill material to a nominal 30 feet bgs, then placing an OSE approved sealant to surface. Lacking that information, we would require an excavation of at least 2-feet which shall then be filled in its entirety with sealant to surface.
8. Should the NMED, or another regulatory agency sharing jurisdiction of the project authorize, or by regulation require a more stringent well plugging procedure than herein acknowledged, the more-stringent procedure should be followed. This, in part, includes provisions regarding pre-authorization to proceed, contaminant remediation, inspection, pulling/perforating of casing, or prohibition of free discharge of any fluid from the borehole during or related to the plugging process.
9. NMOSE witnessing of the plugging of the non-artesian well will not be required.
10. Any deviation from this plan must obtain an approved variance from this office prior to implementation.
11. A Well Plugging Record itemizing actual abandonment process and materials used shall be filed with the State Engineer within 30 days after completion of well plugging. For the plugging record, please resurvey coordinate location for well and note coordinate system for GPS unit. Please attach a copy of these plugging conditions.

The NMOSE Well Plugging Plan of Operations is hereby approved with the aforesaid conditions applied.

Witness my hand and seal this 23<sup>rd</sup> day of April 2024

Mike A. Hamman, P.E. State Engineer



By: K. Parekh

Kashyap Parekh  
Water Resources Manager I



# WELL PLUGGING PLAN OF OPERATIONS



**NOTE:** A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging. This form may be used to plug a single well, or if you are plugging multiple monitoring wells on the same site using the same plugging methodology.

**Alert!** Your well may be eligible to participate in the Aquifer Mapping Program (AMP)-NMI Bureau of Geology [geoinfo.nmt.edu/resources/water/cgmn/](http://geoinfo.nmt.edu/resources/water/cgmn/) if within an area of interest and meets the minimum construction requirements, such as there is still water in your well, and the well construction reflected in a well record and log is not compromised, contact AMP at 575-835-5038 or -6951, or by email [nmbg-waterlevels@nmt.edu](mailto:nmbg-waterlevels@nmt.edu), prior to completing this prior form. Showing proof to the OSE that your well was accepted in this program, may delay the plugging of your well until a later date.

**I. FILING FEE:** There is no filing fee for this form.

**II. GENERAL / WELL OWNERSHIP:** ☐ Check here if proposing one plan for multiple monitoring wells on the same site and attaching WD-08m

Existing Office of the State Engineer POD Number (Well Number) for well to be plugged: C-4827-POD1

Name of well owner: Tetra Tech Inc. on Behalf of ConocoPhillips

Mailing address: 8911 N. Capital of Texas Highway, Bldg. 2 Suite 2310 County: \_\_\_\_\_

City: Austin State: Texas Zip code: 78759

Phone number: 512-565-0190 E-mail: christian.llull@tetrattech.com

## III. WELL DRILLER INFORMATION:

Well Driller contracted to provide plugging services: John Scarborough Drilling Inc.

New Mexico Well Driller License No.: WD1188 Expiration Date: 3/31/2026

**IV. WELL INFORMATION:** ☐ Check here if this plan describes method for plugging multiple monitoring wells on the same site and attach supplemental form WD-08m and skip to #2 in this section.

Note: A copy of the existing Well Record for the well(s) to be plugged should be attached to this plan.

1) GPS Well Location: Latitude: 32.053208° deg, -103.4994 min, \_\_\_\_\_ sec  
Longitude: \_\_\_\_\_ deg, \_\_\_\_\_ min, \_\_\_\_\_ sec, NAD 83

OSE DIT APR 19 2024 AM 11:24

2) Reason(s) for plugging well(s):

Completion of monitoring period

3) Was well used for any type of monitoring program? Yes If yes, please use section VII of this form to detail what hydrogeologic parameters were monitored. If the well was used to monitor contaminated or poor quality water, authorization from the New Mexico Environment Department may be required prior to plugging.

4) Does the well tap brackish, saline, or otherwise poor quality water? UNK If yes, provide additional detail, including analytical results and/or laboratory report(s): Unknown

5) Static water level: UNK feet below land surface / feet above land surface (circle one)

6) Depth of the well: 105 feet



- 7) Inside diameter of innermost casing: 2 inches.
- 8) Casing material: Sch. 40 PVC
- 9) The well was constructed with:  
☐ an open-hole production interval, state the open interval: \_\_\_\_\_  
☒ a well screen or perforated pipe, state the screened interval(s): 15-25
- 10) What annular interval surrounding the artesian casing of this well is cement-grouted? \_\_\_\_\_
- 11) Was the well built with surface casing? NA If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? NA If yes, please describe:  

Temporary Well
- 12) Has all pumping equipment and associated piping been removed from the well? \_\_\_\_\_ If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.

**V. DESCRIPTION OF PLANNED WELL PLUGGING:** ☐ If plugging method differs between multiple wells on same site, a separate form must be completed for each method.

Note: If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie pipe, a detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional technical information, such as geophysical logs, that are necessary to adequately describe the proposal. Attach a copy of any signed OSE variance to this plugging plan.

Also, if this planned plugging plan requires a variance to 19.27.4 NMAC, attach a detailed variance request signed by the applicant.

- 1) Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well:  

Tremie Type 1 Cement-Bentonite Slurry from bottom of boring to ground level.
- 2) Will well head be cut-off below land surface after plugging? NA Temporary

**VI. PLUGGING AND SEALING MATERIALS:**

Note: The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant. Attach a copy of the batch mix recipe from the cement company and/or product description for specialty cement mixes or any sealant that deviates from the list of OSE approved sealants.

- 1) For plugging intervals that employ cement grout, complete and attach Table A.
- 2) For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.
- 3) Theoretical volume of grout required to plug the well to land surface: 17.13 gallons
- 4) Type of Cement proposed: Type 1 Cement-Bentonite
- 5) Proposed cement grout mix: 5.2 gallons of water per 94 pound sack of Portland cement.
- 6) Will the grout be: \_\_\_\_\_ batch-mixed and delivered to the site  
                                   x mixed on site

USE ON APR 19 2024 PM 11:24

- 7) Grout additives requested, and percent by dry weight relative to cement:

N/A

- 8) Additional notes and calculations:

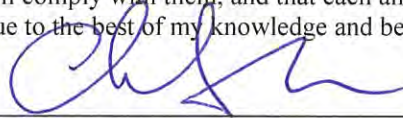
N/A

**VII. ADDITIONAL INFORMATION:** List additional information below, or on separate sheet(s):

N/A

**VIII. SIGNATURE:**

I, CHRISTIAN LULL, say that I have carefully read the foregoing Well Plugging Plan of Operations and any attachments, which are a part hereof; that I am familiar with the rules and regulations of the State Engineer pertaining to the plugging of wells and will comply with them, and that each and all of the statements in the Well Plugging Plan of Operations and attachments are true to the best of my knowledge and belief.



Signature of Applicant



Date

OSE DIT APR 19 2024 AM 11:25

**IX. ACTION OF THE STATE ENGINEER:**

This Well Plugging Plan of Operations is:

☒ Approved subject to the attached conditions.

☐ Not approved for the reasons provided on the attached letter.

April

2024

Witness my hand and official seal this 23rd day of

Mike A. Hamman P.E.

., New Mexico State Engineer

By: K. Parekh  
Kashyap Parekh

Water Resources Manager I

WD-08 Well Plugging Plan  
Version: March 07, 2022  
Page 3 of 5



**TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.**

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			0
Bottom of proposed interval of grout placement (ft bgl)			30
Theoretical volume of grout required per interval (gallons)			17.13
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			5.2
Mixed on-site or batch-mixed and delivered?			on-site
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement			
Grout additive 2 requested			05E DIT APR 19 2024 AM 11:24
Additive 2 percent by dry weight relative to cement			



**TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.**

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			
Bottom of proposed sealant or grout placement (ft bgl)			
Theoretical volume of sealant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)			

QSE DIT APR 19 2024 AM 11:24

**Chavira, Lisbeth**

---

**From:** Taylor, Shelly J <sjtaylor@blm.gov>  
**Sent:** Wednesday, April 3, 2024 6:50 PM  
**To:** Llull, Christian  
**Cc:** Chavira, Lisbeth  
**Subject:** Re: [EXTERNAL] Access Request - Gunner 8 Federal #008H FL (NAPP2400930878)

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

BLM authorizes you to drill and DTW bore on federal surface.

Respectfully,

*Shelly J Taylor*

Assistant Field Manager  
Lands & Minerals - Acting

Bureau of Land Management  
Pecos District/Roswell Field Office  
2909 W 2<sup>nd</sup> St  
Roswell, NM 88201

Direct 575.627.0250  
Mobile 575.200.0614  
[sjtaylor@blm.gov](mailto:sjtaylor@blm.gov)



---

**From:** Llull, Christian <Christian.Llull@tetrattech.com>  
**Sent:** Tuesday, March 26, 2024 10:45 AM  
**To:** Taylor, Shelly J <sjtaylor@blm.gov>  
**Cc:** Chavira, Lisbeth <LISBETH.CHAVIRA@tetrattech.com>  
**Subject:** [EXTERNAL] Access Request - Gunner 8 Federal #008H FL (NAPP2400930878)

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

Shelly,

Tetra Tech is assisting ConocoPhillips with assessment activities associated with a previously reported unplanned release that occurred on December 21, 2023.

The **Gunner 8 Federal #008H FL Release** was the result of equipment failure, approximately 2 bbls of produced water, of which 1 bbl of produced water were recovered.

In order to complete the assessment and the submittal process we are requesting verbal approval to install a DTW on an active COG pad on BLM Land.

KMZ file attached and screengrab below.

This boring location is an on pad – previously disturbed area.

To comply with the New Mexico State Office of Engineer permit requirements, we must include landowner approval when submitting the *Application for Permit to Drill* (WR-07).

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

**Gunner 8 Federal #008H FL**

**Unit Letter M, Section 8, Township 26 South, Range 34 East**

**Lea County, New Mexico**

**Incident Identification (ID) NAPP2400930878**

**Approximate Release Location: 32.052130°,-103.498346°**

**Date Release Discovered: 12/21/2023**

**Volume Released: Approximately 2 barrels (bbls) of produced water were released of which 1 bbl was recovered.**

**Release in pasture**



**Christian Llull, P.G.** | Program Manager  
Mobile +1 (512) 565-0190 | [christian.llull@tetrattech.com](mailto:christian.llull@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)

*This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.*



Please consider the environment before printing. [Read more](#)



**TETRA TECH**



**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 359846

CONDITIONS

Operator:  COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:  229137
	Action Number:  359846
	Action Type:  [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	The Remediation Plan is Conditionally Approved. All samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards for site assessment/characterization/proven depth to water determination. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. The variance request to collect samples every 400' is approved. All off pad areas must meet reclamation standards set forth in the OCD Spill Rule. The work will need to occur in 90 days after the work plan has been reviewed.	7/2/2024



**Chavira, Lisbeth**

---

**From:** Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>  
**Sent:** Wednesday, October 2, 2024 10:18 AM  
**To:** Chavira, Lisbeth  
**Cc:** Llull, Christian; Abbott, Sam; Bratcher, Michael, EMNRD  
**Subject:** RE: [EXTERNAL] Extension Request - NAPP2400930878 (Gunner 8 Federal #008H FL)

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

Your time extension request is approved. Remediation Due date has been updated to December 29, 2024 within the incident page. Please note that this is the second extension. Ensure that the site characterization/assessment report has been completed and is provided within the final closure report.

Please keep a copy of this communication for inclusion within the appropriate reporting documentation.

The OCD requires a copy of all correspondence related to remedial activities be included in all proposals, weekly/monthly/quarterly/semi-annual/annual, or final closure reports. Correspondence reporting requirements may include, but not limited to, time extension requests, sample event notifications, and variance requests.

If you have any questions, please contact me via email at your convenience.

Thank you.

Regards,

**Scott Rodgers** • Environmental Specialist – Adv.  
Environmental Bureau  
EMNRD - Oil Conservation Division  
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113  
505.469.1830 | [scott.rodgers@emnrd.nm.gov](mailto:scott.rodgers@emnrd.nm.gov)  
<http://www.emnrd.nm.gov/oed>



---

**From:** Chavira, Lisbeth <LISBETH.CHAVIRA@tetrattech.com>  
**Sent:** Tuesday, October 1, 2024 3:44 PM  
**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>  
**Cc:** Llull, Christian <Christian.Llull@tetrattech.com>; Abbott, Sam <Sam.Abbott@tetrattech.com>; Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>  
**Subject:** [EXTERNAL] Extension Request - NAPP2400930878 (Gunner 8 Federal #008H FL)

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

Mr. Rodgers:

On behalf of ConocoPhillips, Tetra Tech is requesting a 90-day extension (until December 29, 2024) to complete remedial activities and associated reporting for the Gunner 8 Federal #008H FL Site (NAPP2400930878).

The Remediation Work Plan (Work Plan) was prepared by Tetra Tech on behalf of ConocoPhillips and submitted to NMOCD on July 1, 2024. The Work Plan described the results of the release assessment and provided characterization of the impact at the site. The Work Plan was conditionally approved by the NMOCD on July 2, 2024, with the following comment:

- *The Remediation Plan is Conditionally Approved. All samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards for site assessment/characterization/proven depth to water determination. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. The variance request to collect samples every 400' is approved. All off pad areas must meet reclamation standards set forth in the OCD Spill Rule. The work will need to occur in 90 days after the work plan has been reviewed.*

ConocoPhillips submitted the Work Plan to the Bureau of Land Management (BLM) for their review and approval. On August 21, 2024, Crisha Morgan of the BLM stated that *"the only requirement for this release is an Arch survey as this release falls outside of the previously surveyed space"*.

Tetra Tech contracted SWCA to conduct an archaeological survey per BLM request. SWCA completed the archeological survey for the Gunner 8 Federal 008H on September 4, 2024.

SWCA submitted the archeological report to the BLM via email on September 27, 2024.

The BLM responded yesterday (September 30, 2024), via email with *"as far as archaeology is concerned, the remediation is clear to proceed"*.

Due to completing the additional requirements for the BLM, additional time is required to complete remedial activities. Once the remedial activities are complete, and confirmation sampling data is collected, tabulated, and evaluated, a closure report will be submitted to the OCD.

Please let me know if you have any questions or concerns.

Thank you in advance.

**Lisbeth Chavira** | 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)

*This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.*



Please consider the environment before printing. [Read more](#)



**Chavira, Lisbeth**

---

**From:** Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>  
**Sent:** Wednesday, November 6, 2024 3:46 PM  
**To:** Abbott, Sam  
**Cc:** Chavira, Lisbeth; Llull, Christian  
**Subject:** RE: [EXTERNAL] C-141N Variance Request - NAPP2400930878

Some people who received this message don't often get email from scott.rodgers@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 Afternoon,

The variance request for the two-business day notification is approved.

Please keep a copy of this communication for inclusion within the appropriate reporting documentation.

The OCD requires a copy of all correspondence related to remedial activities be included in all proposals, weekly/monthly/quarterly/semi-annual/annual, or final closure reports. Correspondence reporting requirements may include, but not limited to, time extension requests, sample event notifications, and variance requests.

If you have any questions, please contact me via email at your convenience.

**Scott Rodgers** • Environmental Specialist – Adv.  
Environmental Bureau  
EMNRD - Oil Conservation Division  
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113  
505.469.1830 | [scott.rodgers@emnrd.nm.gov](mailto:scott.rodgers@emnrd.nm.gov)  
<http://www.emnrd.nm.gov/oed>



---

**From:** Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>  
**Sent:** Wednesday, November 6, 2024 2:30 PM  
**To:** Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>  
**Cc:** Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>  
**Subject:** FW: [EXTERNAL] C-141N Variance Request - NAPP2400930878

---

**From:** Abbott, Sam <[Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)>  
**Sent:** Wednesday, November 6, 2024 1:30 PM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>

**Cc:** Chavira, Lisbeth <[LISBETH.CHAVIRA@tetrattech.com](mailto:LISBETH.CHAVIRA@tetrattech.com)>; Llull, Christian <[Christian.Llull@tetrattech.com](mailto:Christian.Llull@tetrattech.com)>

**Subject:** [EXTERNAL] C-141N Variance Request - NAPP2400930878

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

Good afternoon,

I am requesting a variance to the two business day notification to continue confirmation sampling outside of the initial notice period. We received exceedances in our initial confirmation sampling and will need to continue sampling today (11/6/2024).

Below and attached is the sampling notice through the OCD Permitting, please let me know if any additional information is needed.

Thank you in advance.

**Samantha Abbott, PG** | Project Manager

Direct Mobile +1 (512) 739-7874 | Business +1 (512) 338-1667 | [Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)

**Tetra Tech, Inc.** | *Leading with Science*® | OGA

8911 N Capital of Texas Hwy #2310 | Austin, TX 78759 | [tetrattech.com](http://tetrattech.com)

*This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.*



Please consider the environment before printing. [Read more](#)



**TETRA TECH**

---

**From:** [OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us) <[OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us)>

**Sent:** Wednesday, November 6, 2024 12:11 PM

**To:** Llull, Christian <[christian.llull@tetrattech.com](mailto:christian.llull@tetrattech.com)>

**Subject:** The Oil Conservation Division (OCD) has accepted the application, Application ID: 400001

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

To whom it may concern (c/o Christian Llull for COG OPERATING LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2400930878.

The sampling event is expected to take place:

**When:** 11/06/2024 @ 14:00

**Where:** M-08-26S-34E 0 FNL 0 FEL (32.0521001,-103.4984001)

**Additional Information:** The initial round of sampling was conducted on 11/4, and a C-141N was submitted and approved by OCD. Unfortunately, a portion of the analytical results received did not meet action levels, thus an additional sampling event today is warranted today. In addition to this C-141N, we will also request a variance to the two (2) business day notice of sampling via email. Please contact

Lisbeth Chavira at Mobile +1 (512) 596-8201 for additional information.

**Additional Instructions:** Approximate Release Point: 32.052130°,-103.498346°

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

**New Mexico Energy, Minerals and Natural Resources Department**

1220 South St. Francis Drive  
Santa Fe, NM 87505

## **APPENDIX C**

### **Site Characterization Data**



## OCD Land ownership



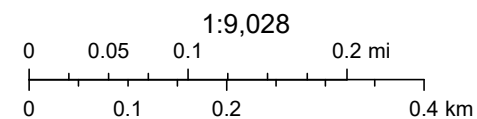
1/24/2024, 1:45:22 PM

Mineral Ownership

Land Ownership

A-All minerals are owned by U.S.

BLM



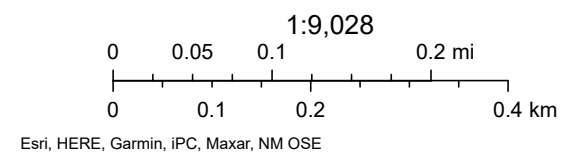
U.S. BLM, Esri, HERE, Garmin, iPC, Maxar



## OCD Water Bodies



1/24/2024, 1:43:21 PM





# 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 04626 POD1</a>	CUB	LE		4	2	1	18	26S	34E	640644	3546672	1230			
<a href="#">C 02295</a>	CUB	LE		2	2	4	12	26S	33E	639865	3547624	1935	250	200	50
<a href="#">C 02292 POD1</a>	CUB	LE		4	1	2	06	26S	34E	640992	3549987	2886	200	140	60
<a href="#">C 03442 POD1</a>	C	LE		4	1	2	06	26S	34E	641056	3550028	2910	251		
<a href="#">C 03441 POD1</a>	C	LE		4	1	2	06	26S	34E	640971	3550039	2942	250		

Average Depth to Water: **170 feet**

Minimum Depth: **140 feet**

Maximum Depth: **200 feet**

Record Count: 5

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

**Easting (X):** 641754.33

**Northing (Y):** 3547203.13

**Radius:** 3000

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.

1/24/24 1:20 PM

Page 1 of 1

WATER COLUMN/ AVERAGE  
DEPTH TO WATER



# National Flood Hazard Layer FIRMette



103°30'13"W 32°3'23"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 1/24/2024 at 2:20 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.



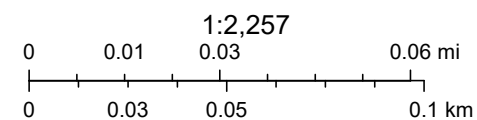
## OCD Karst Areas



1/24/2024, 1:26:28 PM

Karst Occurrence Potential

Low



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

## OCD Induced Seismic Area



1/30/2024, 10:39:53 AM

Seismic Response 3.5 and above    Seismic Response 3.0 to 3.4    Seismic Response 2.5 to 2.9



6 mi.



10 mi.



6 mi.



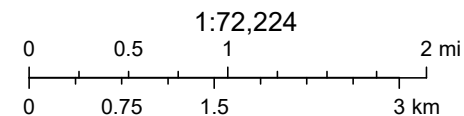
10 mi.



6 mi.



10 mi.



Oil Conservation Division (OCD), Energy, Minerals and Natural Resources Department (EMNRD), Esri, HERE, Garmin, Earthstar Geographics

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. <http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75>: New Mexico Oil Conservation Division



212C-MD-03343		<b>TETRA TECH</b>		<b>LOG OF BORING Gunner 8 Federal #008H DTW</b>				Page 1 of 1	
Project Name: Gunner 8 Fed #008H									
Borehole Location: GPS Coordinates: 32.053208°, -103.499466°				Surface Elevation: 3360'					
Borehole Number: <b>Gunner 8 Federal #008H DTW</b>				Borehole Diameter (in.): 8"		Date Started:		Date Finished: 5/16/2024	

WATER LEVEL OBSERVATIONS														
While Drilling <input checked="" type="checkbox"/> DRY      24 Hours After Completion of Drilling <input checked="" type="checkbox"/> DRY														
Remarks:														
DEPTH (ft)	OPERATION TYPES	SAMPLE	CHLORIDE CONCENTRATION (ppm)	VOC CONCENTRATION (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	WELL DIAGRAM
5												-SP- SAND: Light brown, loose, dry, fine- to coarse-grained, with caliche fragments	2	
10												-SM- SILTY SAND: Brown to dark brown, partially weakly cemented, dry, fine-grained, with large caliche fragments	6	
15												-SP- SAND: Brown, partially weakly cemented, dry, fine- to coarse-grained, with caliche fragments	14	
20												-SP- SAND: Brown, moderately cemented, dry, fine-grained, with clayey sand and caliche fragments	19	
25												-SP- SAND: Light brown to pale brown, partially weakly cemented, fine-grained, with clayey sand and caliche nodules	24	
30												-GM- SAND: Pale brown, loose to partially weakly cemented, dry, very fine- to fine-grained, with caliche fragments	29	
35												-SP- SAND: Pale brown, dry, coarse-grained, with caliche fragments	39	
40												-SC- CLAYEY SAND: Brown, moderately cemented, dry, fine-grained, trace caliche nodules	49	
45												-SC- CLAYEY SAND: Reddish brown, partially weakly, dry, very fine- to fine-grained	59	
50												-SM- SAND: Light brown, loose, dry, very fine-grained, with some indurated clayey sand fragments	69	
55												-SM- SAND: Light brown, loose to partially weakly cemented, dry, very fine- to fine-grained, with some indurated clayey sand fragments	79	
60												-SM- SAND: Brown to reddish brown, loose to partially weakly cemented, dry, very fine- to fine-grained, with indurated clayey sand fragments	89	
65												-- SANDY CLAYSTONE: Light brown to reddish brown, indurated, dry, fine-grained		
70												-- SILTSTONE: Light reddish brown, weakly cemented, dry, fine-grained		
75														
80														
85														
90														
95														
100														
105														

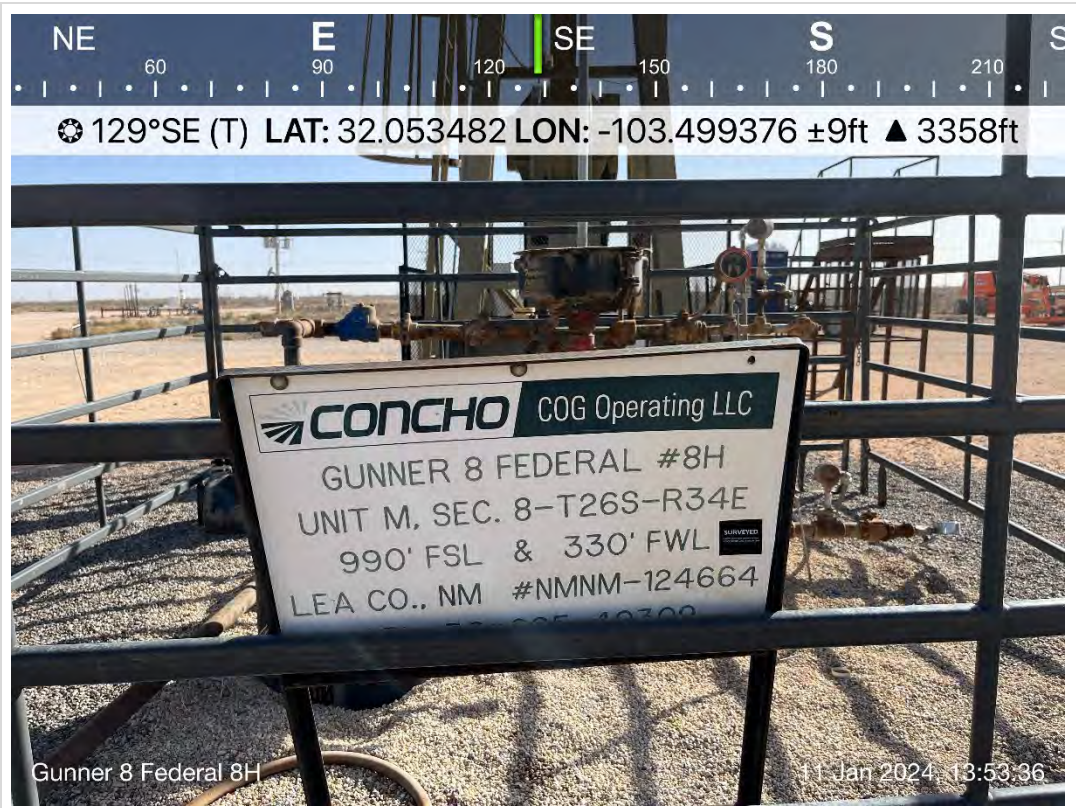
Bottom of borehole at 105.0 feet.

<b>Sampler Types:</b> Split Spoon Shelby Bulk Sample Grab Sample	<b>Acetate Liner</b> Vane Shear California Test Pit	<b>Operation Types:</b> Auger Hollow Stem Auger Continuous Flight Auger Mud Rotary	<b>Notes:</b> Surface elevation is an approximate value obtained from Google Earth data.
--	--	--	---

<b>Logger:</b> Colton Bickerstaff	<b>Drilling Equipment:</b> Air Rotary	<b>Driller:</b> Scarborough Drilling
-----------------------------------	---------------------------------------	--------------------------------------

## **APPENDIX D**

# **Photographic Documentation**

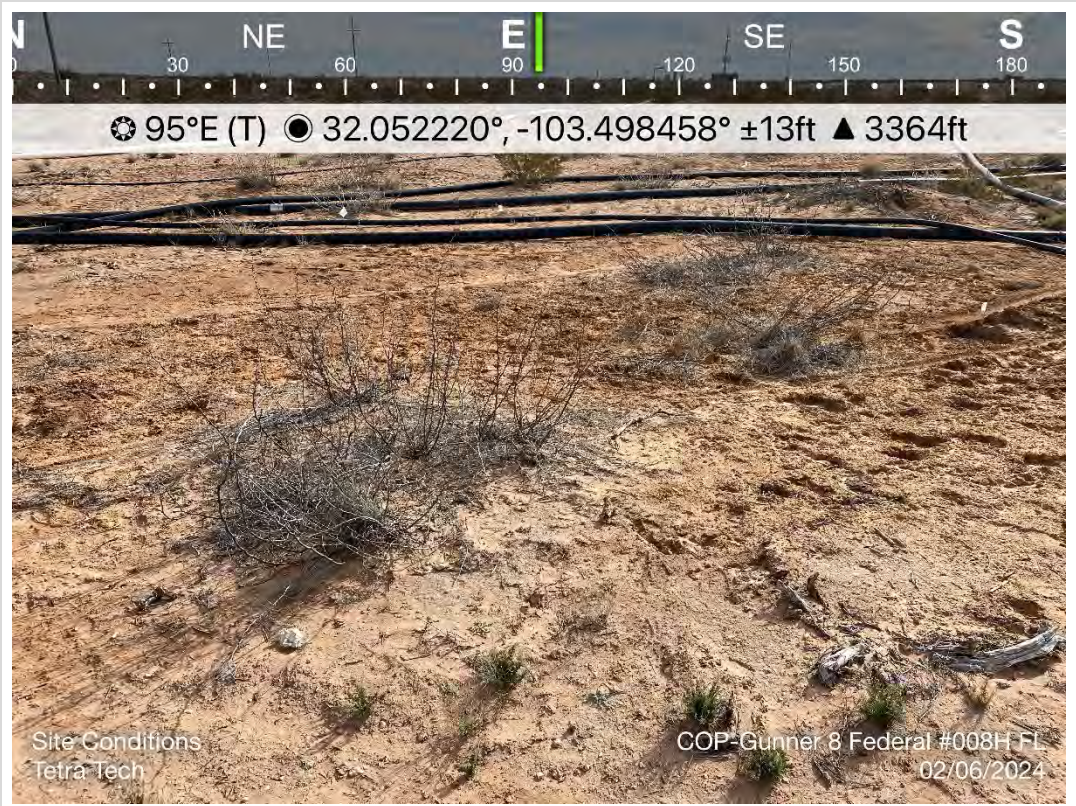


TETRA TECH, INC. PROJECT NO. 212C-MD-03343	DESCRIPTION	Site signage. COG Operating LLC, Gunner 8 Federal #8H and location information.	1
	SITE NAME	Gunner 8 Federal #008H Flowline Release	1/11/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-03343	DESCRIPTION	View north northwest. Release area, surface polylines and steel lines.	2
	SITE NAME	Gunner 8 Federal #008H Flowline Release	2/6/2024



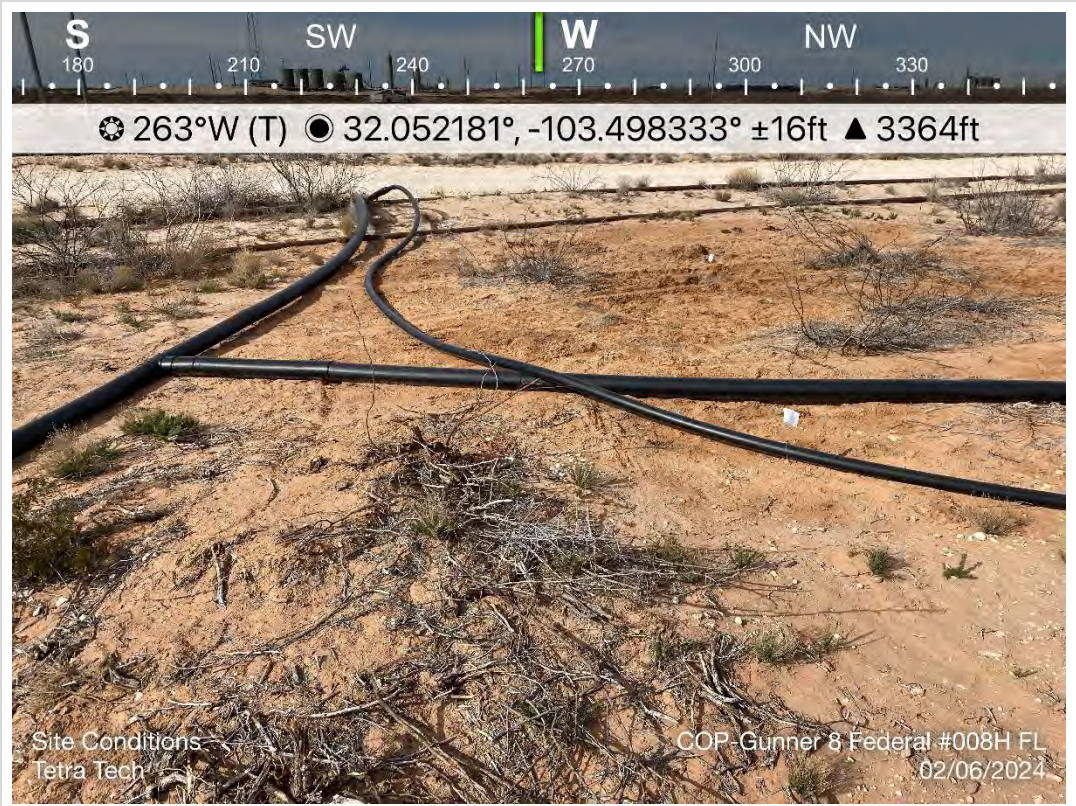


TETRA TECH, INC. PROJECT NO. 212C-MD-03343	DESCRIPTION	View east. Release area and surface polylines.	3
	SITE NAME	Gunner 8 Federal #008H Flowline Release	2/6/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-03343	DESCRIPTION	View south. Release area and surface polylines.	4
	SITE NAME	Gunner 8 Federal #008H Flowline Release	2/6/2024



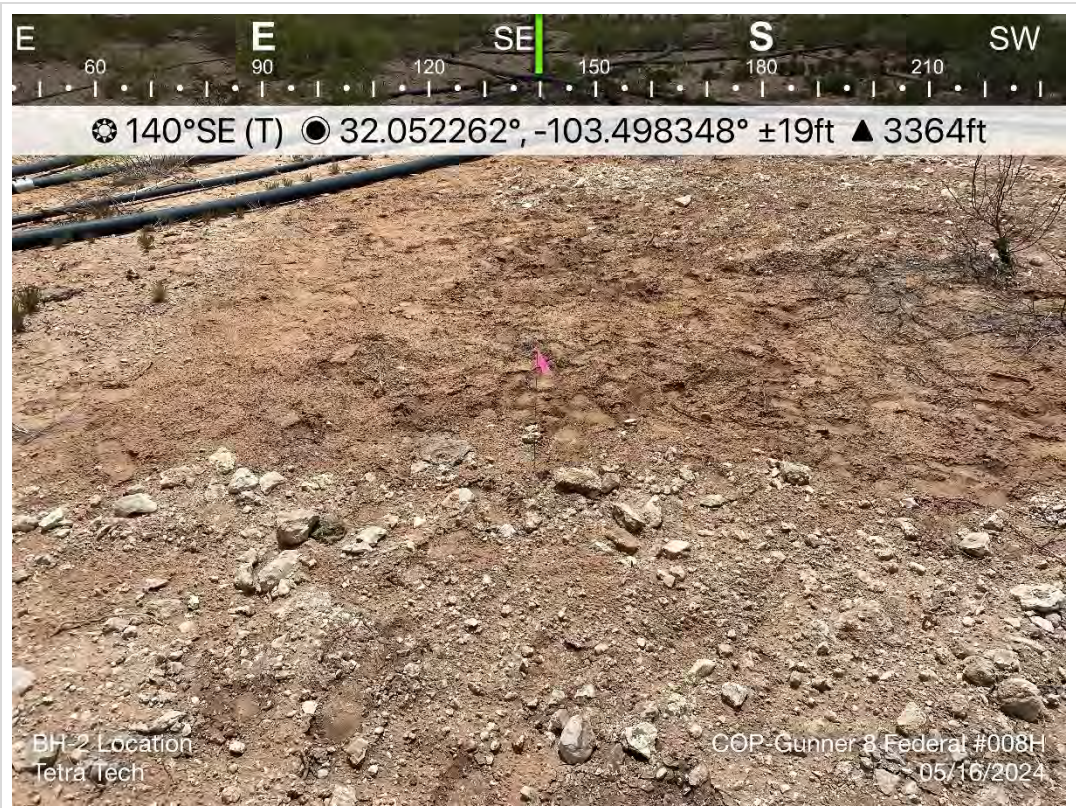


TETRA TECH, INC. PROJECT NO. 212C-MD-03343	DESCRIPTION	View west towards lease road. Release area and surface polylines	5
	SITE NAME	Gunner 8 Federal #008H Flowline Release	2/6/2024

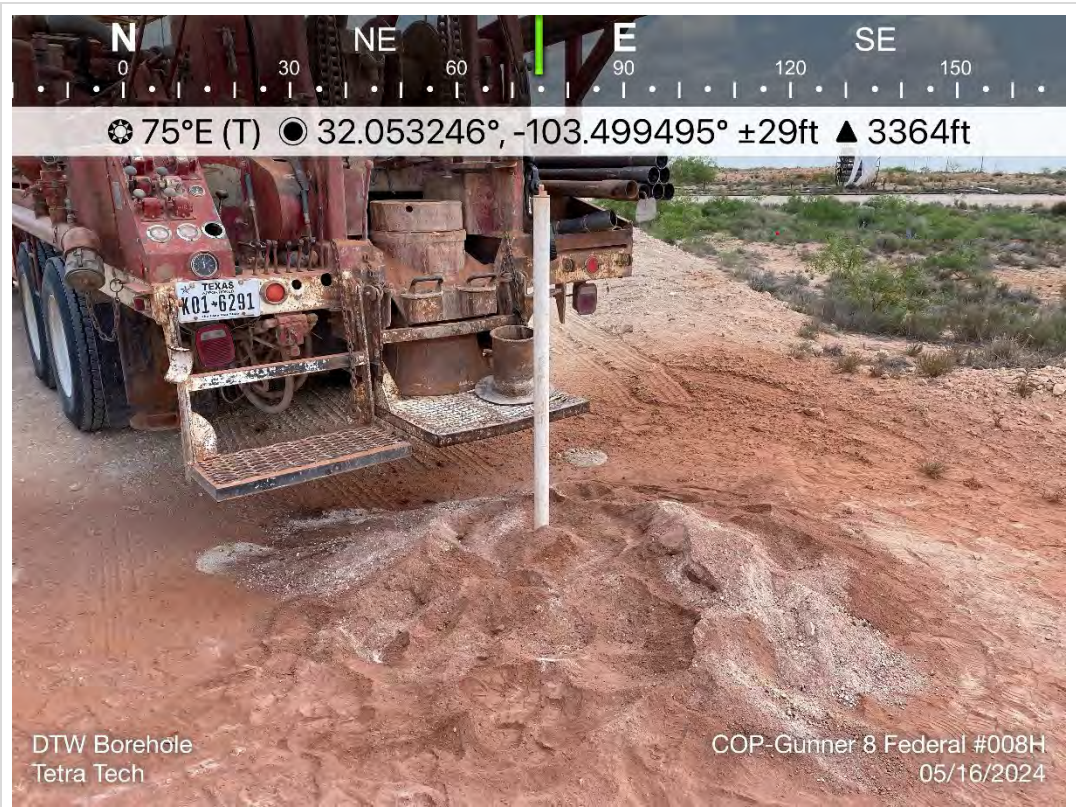


TETRA TECH, INC. PROJECT NO. 212C-MD-03343	DESCRIPTION	View south southeast. Borehole location BH-1. Release area and surface polylines.	6
	SITE NAME	Gunner 8 Federal #008H Flowline Release	5/16/2024





TETRA TECH, INC. PROJECT NO. 212C-MD-03343	DESCRIPTION	View southeast. Borehole location BH-2. Release area and surface polylines.	7
	SITE NAME	Gunner 8 Federal #008H Flowline Release	5/16/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-03343	DESCRIPTION	View east northeast. Depth to water determination boring.	8
	SITE NAME	Gunner 8 Federal #008H Flowline Release	5/16/2024





TETRA TECH, INC. PROJECT NO. 212C-MD-03343	DESCRIPTION	View northeast. View of remediation extent.	9
	SITE NAME	Gunner 8 Federal #008H Flowline Release	11/5/2024

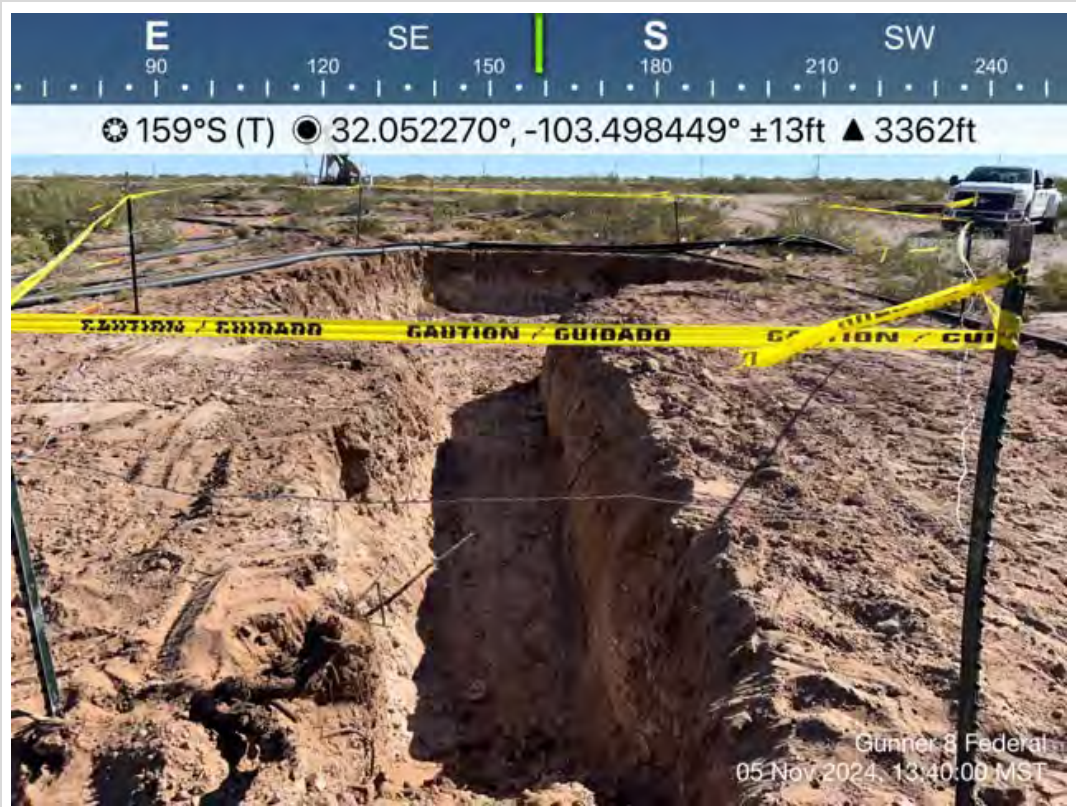


TETRA TECH, INC. PROJECT NO. 212C-MD-03343	DESCRIPTION	View southeast south. View of remediation extent.	10
	SITE NAME	Gunner 8 Federal #008H Flowline Release	11/5/2024





TETRA TECH, INC. PROJECT NO. 212C-MD-03343	DESCRIPTION	View southeast. Borehole location BH-2. Release area and surface polylines.	11
	SITE NAME	Gunner 8 Federal #008H Flowline Release	11/5/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-03343	DESCRIPTION	View south. View of remediation extent.	12
	SITE NAME	Gunner 8 Federal #008H Flowline Release	11/5/2024





TETRA TECH, INC. PROJECT NO. 212C-MD-03343	DESCRIPTION	Seed Mix Used for Reclamation Activities	13
	SITE NAME	Gunner 8 Federal #008H Flowline Release	11/7/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-03343	DESCRIPTION	View east. View of release area remediated and seeded.	14
	SITE NAME	Gunner 8 Federal #008H Flowline Release	11/7/2024





TETRA TECH, INC. PROJECT NO. 212C-MD-03343	DESCRIPTION	View northeast. View of release area remediated and seeded.	15
	SITE NAME	Gunner 8 Federal #008H Flowline Release	11/7/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-03343	DESCRIPTION	View southeast. View of release area remediated and seeded.	16
	SITE NAME	Gunner 8 Federal #008H Flowline Release	11/7/2024



## **APPENDIX E**

### **Waste Manifests**





(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name \_\_\_\_\_

Phone No. \_\_\_\_\_

**GENERATOR**NO. **HW-711600**

Generator Manifest # \_\_\_\_\_  
Generator Name ConocoPhillips  
Address \_\_\_\_\_  
City, State, Zip \_\_\_\_\_  
Phone No. \_\_\_\_\_

Location of Origin  
Lease/Well Name & No. Burner 8 Fed 8H  
County FL Release  
API No. \_\_\_\_\_  
Rig Name & No. 30-025-40309  
AFE/PO No. \_\_\_\_\_

**EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)**

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT E&P WASTE STREAMS
Oil Based Cuttings	Washout Water (Non-Injectable)	
Water Based Muds	Completion Fluid/Flow Back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms		
E&P Contaminated Soil	<b>INTERNAL USE ONLY</b>	<b>TOP SOIL &amp; CALICHE SALES</b>
Gas Plant Waste	Truck Washout (exempt waste) YES NO	QUANTITY TOP SOIL CALICHE

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES**NON-EXEMPT E&P Waste/Service Identification and Amount**

All non-exempt E&amp;P waste must be analysed and be below threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from **Non-Exempt Waste List** on backDISPOSAL QUANTITY B - BARRELS L - LIQUID 13 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operation and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)
- ☐ EMERGENCY NON-OILFIELD Emergency non-hazardous, non-oilfield waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a description of the waste must accompany this form)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

**TRANSPORTER**

Transporter's Name MCRabb  
Address \_\_\_\_\_  
Phone No. \_\_\_\_\_  
Transporter Ticket # \_\_\_\_\_

Driver's Name Victor M.  
Print Name \_\_\_\_\_  
Phone No. \_\_\_\_\_  
Truck No. M38

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

TRUCK TIME STAMP  
IN: 8:50 OUT: 9:05**DISPOSAL FACILITY****RECEIVING AREA**

Name/No. \_\_\_\_\_

Site Name/ Permit No. Halfway Facility / NM1-006  
Address 6601 Hobbs Hwy US 62 / 180 Mile Marker 66 Carlsbad, NM 88220

Phone No. 575-392-6368

NORM READINGS TAKEN? (Circle One) YES NO  
PASS THE PAINT FILTER TEST? (Circle One) YES NO

If YES, was reading > 50 micro roentgens? (Circle One) YES NO**TANK BOTTOMS**

	Feet	Inches
1st Gauge		
2nd Gauge		
Received		

BS&W/BBLs Received		BS&W (%)
Free Water		
Total Received		

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE





## NEW MEXICO NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name \_\_\_\_\_

Phone No. \_\_\_\_\_

## GENERATOR

NO. HW- 715109

Generator Manifest # \_\_\_\_\_

Generator Name Conoco-Phillips

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone No. \_\_\_\_\_

Location of Origin \_\_\_\_\_

Lease/Well \_\_\_\_\_

Name & No. Gunner 8 Federal 0084 FL Release

County \_\_\_\_\_

API No. \_\_\_\_\_

Rig Name &amp; No. \_\_\_\_\_

AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT E&P WASTE STREAMS				
Oil Based Cuttings	Washout Water (Non-Injectable)	<u>End Dump</u>				
Water Based Muds	Completion Fluid/Flow Back (Non-Injectable)					
Water Based Cuttings	Produced Water (Non-Injectable)					
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)					
Tank Bottoms	INTERNAL USE ONLY		TOP SOIL & CALICHE SALES			
E&P Contaminated Soil	Truck Washout (exempt waste)	YES	NO	QUANTITY	TOP SOIL	CALICHE
Gas Plant Waste						

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

DISPOSAL QUANTITY B - BARRELS L - LIQUID Y - YARDS 18 E - EACH

I hereby certify that the above listed material(s), is (are) not hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

☒ RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operation and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT:

Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information☐ RCRA Hazardous Waste Analysis☐ Other (Provide Description Below)☐ EMERGENCY NON-OILFIELD

Emergency non-hazardous, non-oilfield waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a description of the waste must accompany this form)

(PRINT) AUTHORIZED AGENTS SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_

SIGNATURE \_\_\_\_\_

## TRANSPORTER

Transporter's Name McNabb Partners

Address \_\_\_\_\_

Phone No. \_\_\_\_\_

Transporter Ticket # \_\_\_\_\_

Driver's Name Fidencio Trevino Jr

Print Name \_\_\_\_\_

Phone No. \_\_\_\_\_

Truck No. M87

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE \_\_\_\_\_

DRIVER'S SIGNATURE \_\_\_\_\_

DELIVERY DATE 11-5-2024DRIVER'S SIGNATURE Fidencio Trevino Jr

## TRUCK TIME STAMP

IN: 9:23 OUT: 9:41

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. 1003Site Name/Permit No. Halfway Facility / NM1-006Address 6601 Hobbs Hwy US 62 / 180 Mile Marker 66 Carlsbad, NM 88220Phone No. 575-392-6368NORM READINGS TAKEN? (Circle One) YES ☐ NO ☒PASS THE PAINT FILTER TEST? (Circle One) YES ☐ NO ☒If YES, was reading > 50 micro roentgens? (Circle One) YES ☐ NO ☒

## TANK BOTTOMS

	Feet	Inches
1st Gauge		
2nd Gauge		
Received		

BS&W/BBLS Received	BS&W (%)
Free Water	
Total Received	

I hereby certify that the above load material has been (circle one):

ACCEPTED 11-5-24

DENIED

If denied, why? None

NAME (PRINT) \_\_\_\_\_

DATE \_\_\_\_\_

TITLE \_\_\_\_\_

SIGNATURE \_\_\_\_\_





(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company Man Contact Information

Name Scob LairdPhone No. 505-763-5482

## GENERATOR

NO. **HW-711608**

Generator Manifest # \_\_\_\_\_

Generator Name Chasco Phillips

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone No. \_\_\_\_\_

Location of Origin

Lease/Well

Name & No. GUNNER 8 FEDERAL COB

County

API No. 30-025-40309

Rig Name &amp; No. \_\_\_\_\_

AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	_____	NON-INJECTABLE WATERS		OTHER EXEMPT E&P WASTE STREAMS			
Oil Based Cuttings	_____	Washout Water (Non-Injectable) _____		Dump TRUCK - m-38			
Water Based Muds	_____	Completion Fluid/Flow Back (Non-Injectable) _____					
Water Based Cuttings	_____	Produced Water (Non-Injectable) _____					
Produced Formation Solids	_____	Gathering Line Water/Waste (Non-Injectable) _____					
Tank Bottoms	_____	INTERNAL USE ONLY		TOP SOIL & CALICHE SALES			
E&P Contaminated Soil	_____	Truck Washout (exempt waste)	YES	NO	QUANTITY	TOP SOIL	CALICHE
Gas Plant Waste	_____						

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☒ PRODUCTION ☐ GATHERING LINESNON-EXEMPT E&P Waste/Service Identification and Amount  
All non-exempt E&P waste must be analysed and be below threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

DISPOSAL QUANTITY B - BARRELS L - LIQUID 13 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

☒ RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operation and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT:

Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information☐ RCRA Hazardous Waste Analysis☐ Other (Provide Description Below)☐ EMERGENCY NON-OILFIELD

Emergency non-hazardous, non-oilfield waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a description of the waste must accompany this form)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name

Address DIC Nabb PARTNERS

Phone No. \_\_\_\_\_

Transporter Ticket # \_\_\_\_\_

Driver's Name VICTOR MONTANO

Print Name

Phone No. \_\_\_\_\_

Truck No. m-38

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE 11-5-24DRIVER'S SIGNATURE VICTOR MONTANO

## TRUCK TIME STAMP

IN: 10:18 OUT: 10:35

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. pad 3

Site Name/ Permit No.

Halfway Facility / NM1-006Address 6601 Hobbs Hwy US 62 / 180 Mile Marker 66 Carlsbad, NM 88220

Phone No.

575-392-6368

NORM READINGS TAKEN? (Circle One)

YES

NO ☒

If YES, was reading &gt; 50 micro roentgens? (Circle One)

YES

NO

PASS THE PAINT FILTER TEST? (Circle One)

YES

NO ☒

## TANK BOTTOMS

Feet

Inches

1st Gauge		
2nd Gauge		
Received		

BS&W/BBLs Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one):

ACCEPTED 11-5-24

DENIED

If denied, why? None

NAME (PRINT)

DATE

TITLE

SIGNATURE





## NEW MEXICO NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name \_\_\_\_\_

Phone No. \_\_\_\_\_

## GENERATOR

NO. HW- 715108

Generator Manifest # \_\_\_\_\_

Generator Name conoco phillips

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone No. \_\_\_\_\_

Location of Origin \_\_\_\_\_

Lease/Well \_\_\_\_\_

Name & No. Gunnar B Falck / #008H FL Release

County \_\_\_\_\_

API No. \_\_\_\_\_

Rig Name &amp; No. \_\_\_\_\_

AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT E&P WASTE STREAMS		
Oil Based Cuttings	Washout Water (Non-Injectable)	<u>End dump</u>		
Water Based Muds	Completion Fluid/Flow Back (Non-Injectable)			
Water Based Cuttings	Produced Water (Non-Injectable)			
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)			
Tank Bottoms	INTERNAL USE ONLY	TOP SOIL & CALICHE SALES		
E&P Contaminated Soil	Truck Washout (exempt waste)	QUANTITY	TOP SOIL	CALICHE
Gas Plant Waste	YES	NO		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

DISPOSAL QUANTITY B - BARRELS L - LIQUID Y - YARDS 18 E - EACH

I hereby certify that the above listed material(s), is (are) not hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

☒ RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operation and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT:

Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information☐ RCRA Hazardous Waste Analysis☐ Other (Provide Description Below)☐ EMERGENCY NON-OILFIELD

Emergency non-hazardous, non-oilfield waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a description of the waste must accompany this form)

(PRINT) AUTHORIZED AGENTS SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_

SIGNATURE Cotton B.

## TRANSPORTER

Transporter's Name McNabb Partners

Address \_\_\_\_\_

Phone No. \_\_\_\_\_

Transporter Ticket # \_\_\_\_\_

Driver's Name Fidencio Trevino Jr

Print Name \_\_\_\_\_

Phone No. \_\_\_\_\_

Truck No. 1181

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE 11-5-2024DRIVER'S SIGNATURE Fidencio Trevino Jr

DELIVERY DATE \_\_\_\_\_

DRIVER'S SIGNATURE \_\_\_\_\_

## TRUCK TIME STAMP

IN: 11:53 OUT: 11:18

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. Post 3Site Name/ Permit No. Halfway Facility / NM1-006Address 6601 Hobbs Hwy US 62 / 180 Mile Marker 66 Carlsbad, NM 88220Phone No. 575-392-6368NORM READINGS TAKEN? (Circle One) YES (X) NOPASS THE PAINT FILTER TEST? (Circle One) YES (X) NOIf YES, was reading > 50 micro roentgens? (Circle One) YES (X) NO

## TANK BOTTOMS

Feet

Inches

1st Gauge	
2nd Gauge	
Received	

BS&W/BBLs Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one):

ACCEPTED (X)

DENIED

If denied, why? None

NAME (PRINT) \_\_\_\_\_

DATE \_\_\_\_\_

TITLE \_\_\_\_\_

SIGNATURE \_\_\_\_\_



## NEW MEXICO NON-HAZARDOUS OILFIELD WASTE MANIFEST



(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name Jacob Laird

Phone No. \_\_\_\_\_

## GENERATOR

NO. **HW-711607**

Generator Manifest # \_\_\_\_\_

Generator Name Donaco Phillips

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone No. \_\_\_\_\_

Location of Origin

Lease/Well

Name & No. GUNNER #8 FEDERAL #008

County

API No. 30-025-

Rig Name &amp; No. \_\_\_\_\_

AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT E&P WASTE STREAMS
Oil Based Cuttings	Washout Water (Non-Injectable)	<u>DUMP</u> <u>TRUCK - 01-38</u>
Water Based Muds	Completion Fluid/Flow Back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
Gas Plant Waste	QUANTITY	TOP SOIL CALICHE

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☒ PRODUCTION ☐ GATHERING LINESNON-EXEMPT E&P Waste/Service Identification and Amount  
All non-exempt E&P waste must be analysed and be below threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

DISPOSAL QUANTITY B - BARRELS L - LIQUID 13 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

☒ RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operation and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT:

Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information☐ RCRA Hazardous Waste Analysis☐ Other (Provide Description Below)☐ EMERGENCY NON-OILFIELD

Emergency non-hazardous, non-oilfield waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a description of the waste must accompany this form)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name

Address 1110 Nabb Partners

Phone No. \_\_\_\_\_

Transporter Ticket # \_\_\_\_\_

Driver's Name

Print Name VICTOR MANZANO

Phone No. \_\_\_\_\_

Truck No. 11-38

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE 11-5-24DRIVER'S SIGNATURE VICTOR MANZANO

## TRUCK TIME STAMP

IN: 11:25 OUT: 11:40

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. 1003

Site Name/ Permit No.

Halfway Facility / NM1-006Address 6601 Hobbs Hwy US 62 / 180 Mile Marker 66 Carlsbad, NM 88220

Phone No.

575-392-6368NORM READINGS TAKEN? (Circle One) YES ☐ NO ☒  
PASS THE PAINT FILTER TEST? (Circle One) YES ☐ NO ☒If YES, was reading > 50 micro roentgens? (Circle One) YES ☐ NO ☒

## TANK BOTTOMS

Feet

Inches

1st Gauge	
2nd Gauge	
Received	

BS&W/BBLs Received	BS&W (%)
Free Water	
Total Received	

I hereby certify that the above load material has been (circle one):

ACCEPTED 11-5-24

DENIED

If denied, why? none

NAME (PRINT)

DATE

TITLE

SIGNATURE





(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name \_\_\_\_\_

Phone No. \_\_\_\_\_

**GENERATOR**NO. **HW-711609**

Generator Manifest # \_\_\_\_\_

Generator Name Conoco Phillips

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone No. \_\_\_\_\_

Location of Origin \_\_\_\_\_

Lease/Well \_\_\_\_\_

Name & No. Gunner 8 Fedral H 008H F2 R 11-1-1-1

County \_\_\_\_\_

API No. \_\_\_\_\_

Rig Name &amp; No. \_\_\_\_\_

AFE/PO No. \_\_\_\_\_

**EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)**

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT E&P WASTE STREAMS
Oil Based Cuttings	Washout Water (Non-Injectable)	<u>End dump</u>
Water Based Muds	Completion Fluid/Flow Back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	TOP SOIL & CALICHE SALES
E&P Contaminated Soil	Truck Washout (exempt waste) YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	QUANTITY <u>18</u> TOP SOIL CALICHE
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES**NON-EXEMPT E&P Waste/Service Identification and Amount**

All non-exempt E&amp;P waste must be analysed and be below threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from **Non-Exempt Waste List** on back

DISPOSAL QUANTITY B - BARRELS L - LIQUID Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

☒ RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operation and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT:

Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information☐ RCRA Hazardous Waste Analysis☐ Other (Provide Description Below)☐ EMERGENCY NON-OILFIELD

Emergency non-hazardous, non-oilfield waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a description of the waste must accompany this form)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

**TRANSPORTER**Transporter's Name McNabb Partners

Address \_\_\_\_\_

Phone No. \_\_\_\_\_

Transporter Ticket # \_\_\_\_\_

Driver's Name Fidencio Trevino Jr

Print Name \_\_\_\_\_

Phone No. \_\_\_\_\_

Truck No. 1187

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

**TRUCK TIME STAMP**IN: 1:20 OUT: 1:35**DISPOSAL FACILITY****RECEIVING AREA**Name/No. pad 3

Site Name/

Permit No. Halfway Facility / NM1-006Address 6601 Hobbs Hwy US 62 / 180 Mile Marker 66 Carlsbad, NM 88220Phone No. 575-392-6368NORM READINGS TAKEN? (Circle One) YES ☐ NO ☒  
PASS THE PAINT FILTER TEST? (Circle One) YES ☐ NO ☒If YES, was reading > 50 micro roentgens? (Circle One) YES ☐ NO ☒**TANK BOTTOMS**

1st Gauge	Feet	Inches	BS&W/BBLs Received	BS&W (%)
2nd Gauge			Free Water	
Received			Total Received	

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

- If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE



## NEW MEXICO NON-HAZARDOUS OILFIELD WASTE MANIFEST



(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name Scott LairdPhone No. 703-54-82

## GENERATOR

NO. HW-706742

Generator Manifest # \_\_\_\_\_

Generator Name CONCRETE PAVING

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone No. \_\_\_\_\_

Location of Origin

Lease/Well

Name & No. GRANER & FEDERAL

County

API No. 30-025-40309

Rig Name &amp; No. \_\_\_\_\_

AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT E&P WASTE STREAMS				
Oil Based Cuttings	Washout Water (Non-Injectable)	<u>DUMP</u> <u>TRUCK - M-38</u>				
Water Based Muds	Completion Fluid/Flow Back (Non-Injectable)					
Water Based Cuttings	Produced Water (Non-Injectable)					
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)					
Tank Bottoms	INTERNAL USE ONLY					
E&P Contaminated Soil	Truck Washout (exempt waste)	YES	NO	QUANTITY	TOP SOIL	CALICHE
Gas Plant Waste						

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☒ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_

\*please select from Non-Exempt Waste List on back

DISPOSAL QUANTITY B - BARRELS L - LIQUID 13 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

☐ RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operation and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT:

Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information☐ RCRA Hazardous Waste Analysis☐ Other (Provide Description Below)☐ EMERGENCY NON-OILFIELD

Emergency non-hazardous, non-oilfield waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a description of the waste must accompany this form)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name

Address 1100 North Partners

Phone No. \_\_\_\_\_

Transporter Ticket # \_\_\_\_\_

Driver's Name VICTOR MANZANO

Print Name

Phone No. \_\_\_\_\_

Truck No. M-38

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE 11-7-24DRIVER'S SIGNATURE VICTOR MANZANO

## TRUCK TIME STAMP

IN: 10:09 AM OUT: \_\_\_\_\_

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. Pad 3Site Name/  
Permit No.Halfway Facility - NM1-006Address 6601 Hobbs Hwy US 62 / 180 Mile Marker 66 Carlsbad, NM 88220Phone No. 575-392-6368NORM READINGS TAKEN? (Circle One) YES ☒ NO ☐  
PASS THE PAINT FILTER TEST? (Circle One) YES ☒ NO ☐If YES, was reading > 50 micro roentgens? (Circle One) YES ☐ NO ☐

## TANK BOTTOMS

	Feet	Inches
1st Gauge		
2nd Gauge		
Received		

BS&W/BBLs Received	BS&W (%)
Free Water	
Total Received	

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE

## **APPENDIX F**

### **Laboratory Analytical Data**





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

---

February 12, 2024

CHRISTIAN LLULL

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: GUNNER 8 FEDERAL #008H FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 02/07/24 11:12.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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:	02/07/2024	Sampling Date:	02/06/2024
Reported:	02/12/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: AH -1 (0-1') (H240566-01)**

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	02/07/2024	ND	1.86	92.8	2.00	6.19	
Toluene*	<0.050	0.050	02/07/2024	ND	1.93	96.7	2.00	2.57	
Ethylbenzene*	<0.050	0.050	02/07/2024	ND	1.94	97.0	2.00	1.71	
Total Xylenes*	<0.150	0.150	02/07/2024	ND	5.81	96.9	6.00	1.32	
Total BTEx	<0.300	0.300	02/07/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	13800	16.0	02/07/2024	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	02/07/2024	ND	193	96.3	200	0.155	
DRO >C10-C28*	<10.0	10.0	02/07/2024	ND	204	102	200	5.12	
EXT DRO >C28-C36	<10.0	10.0	02/07/2024	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.4 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	02/07/2024	Sampling Date:	02/06/2024
Reported:	02/12/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: AH -1 (2-2.5') (H240566-02)**

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	02/07/2024	ND	1.86	92.8	2.00	6.19		
Toluene*	<0.050	0.050	02/07/2024	ND	1.93	96.7	2.00	2.57		
Ethylbenzene*	<0.050	0.050	02/07/2024	ND	1.94	97.0	2.00	1.71		
Total Xylenes*	<0.150	0.150	02/07/2024	ND	5.81	96.9	6.00	1.32		
Total BTEX	<0.300	0.300	02/07/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16000	16.0	02/07/2024	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	02/07/2024	ND	193	96.3	200	0.155	
DRO >C10-C28*	<10.0	10.0	02/07/2024	ND	204	102	200	5.12	
EXT DRO >C28-C36	<10.0	10.0	02/07/2024	ND					

Surrogate: 1-Chlorooctane 98.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.3 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	02/07/2024	Sampling Date:	02/06/2024
Reported:	02/12/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: AH -2 (0-1') (H240566-03)**

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	02/07/2024	ND	1.86	92.8	2.00	6.19		
Toluene*	<0.050	0.050	02/07/2024	ND	1.93	96.7	2.00	2.57		
Ethylbenzene*	<0.050	0.050	02/07/2024	ND	1.94	97.0	2.00	1.71		
Total Xylenes*	<0.150	0.150	02/07/2024	ND	5.81	96.9	6.00	1.32		
Total BTEX	<0.300	0.300	02/07/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	15600	16.0	02/07/2024	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	02/07/2024	ND	193	96.3	200	0.155	
DRO >C10-C28*	<10.0	10.0	02/07/2024	ND	204	102	200	5.12	
EXT DRO >C28-C36	<10.0	10.0	02/07/2024	ND					

Surrogate: 1-Chlorooctane 92.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.1 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	02/07/2024	Sampling Date:	02/06/2024
Reported:	02/12/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: AH -2 (2-2.25') (H240566-04)**

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	02/07/2024	ND	1.86	92.8	2.00	6.19		
Toluene*	<0.050	0.050	02/07/2024	ND	1.93	96.7	2.00	2.57		
Ethylbenzene*	<0.050	0.050	02/07/2024	ND	1.94	97.0	2.00	1.71		
Total Xylenes*	<0.150	0.150	02/07/2024	ND	5.81	96.9	6.00	1.32		
Total BTEx	<0.300	0.300	02/07/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	10000	16.0	02/07/2024	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	02/07/2024	ND	193	96.3	200	0.155	
DRO >C10-C28*	<10.0	10.0	02/07/2024	ND	204	102	200	5.12	
EXT DRO >C28-C36	<10.0	10.0	02/07/2024	ND					

Surrogate: 1-Chlorooctane 91.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.2 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	02/07/2024	Sampling Date:	02/06/2024
Reported:	02/12/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: AH -3 (0-1') (H240566-05)**

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	02/07/2024	ND	1.86	92.8	2.00	6.19		
Toluene*	<0.050	0.050	02/07/2024	ND	1.93	96.7	2.00	2.57		
Ethylbenzene*	<0.050	0.050	02/07/2024	ND	1.94	97.0	2.00	1.71		
Total Xylenes*	<0.150	0.150	02/07/2024	ND	5.81	96.9	6.00	1.32		
Total BTEX	<0.300	0.300	02/07/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	14800	16.0	02/07/2024	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	02/07/2024	ND	193	96.3	200	0.155	
DRO >C10-C28*	<10.0	10.0	02/07/2024	ND	204	102	200	5.12	
EXT DRO >C28-C36	<10.0	10.0	02/07/2024	ND					

Surrogate: 1-Chlorooctane 93.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.2 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	02/07/2024	Sampling Date:	02/06/2024
Reported:	02/12/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: AH -4 (0-1') (H240566-06)**

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	02/07/2024	ND	1.86	92.8	2.00	6.19		
Toluene*	<0.050	0.050	02/07/2024	ND	1.93	96.7	2.00	2.57		
Ethylbenzene*	<0.050	0.050	02/07/2024	ND	1.94	97.0	2.00	1.71		
Total Xylenes*	<0.150	0.150	02/07/2024	ND	5.81	96.9	6.00	1.32		
Total BTEX	<0.300	0.300	02/07/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4240	16.0	02/07/2024	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	02/07/2024	ND	193	96.3	200	0.155	
DRO >C10-C28*	<10.0	10.0	02/07/2024	ND	204	102	200	5.12	
EXT DRO >C28-C36	<10.0	10.0	02/07/2024	ND					

Surrogate: 1-Chlorooctane 89.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.7 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	02/07/2024	Sampling Date:	02/06/2024
Reported:	02/12/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: AH -4 (1-1.5') (H240566-07)**

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	02/07/2024	ND	2.01	100	2.00	4.48		
Toluene*	<0.050	0.050	02/07/2024	ND	2.01	100	2.00	4.15		
Ethylbenzene*	<0.050	0.050	02/07/2024	ND	2.01	100	2.00	3.77		
Total Xylenes*	<0.150	0.150	02/07/2024	ND	5.84	97.4	6.00	3.74		
Total BTEX	<0.300	0.300	02/07/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4240	16.0	02/07/2024	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	02/07/2024	ND	193	96.3	200	0.155	
DRO >C10-C28*	<10.0	10.0	02/07/2024	ND	204	102	200	5.12	
EXT DRO >C28-C36	<10.0	10.0	02/07/2024	ND					

Surrogate: 1-Chlorooctane 87.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.4 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	02/07/2024	Sampling Date:	02/06/2024
Reported:	02/12/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: AH -5 (0-1') (H240566-08)**

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	02/07/2024	ND	2.01	100	2.00	4.48		
Toluene*	<0.050	0.050	02/07/2024	ND	2.01	100	2.00	4.15		
Ethylbenzene*	<0.050	0.050	02/07/2024	ND	2.01	100	2.00	3.77		
Total Xylenes*	<0.150	0.150	02/07/2024	ND	5.84	97.4	6.00	3.74		
Total BTEX	<0.300	0.300	02/07/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	02/07/2024	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	02/07/2024	ND	193	96.3	200	0.155	
DRO >C10-C28*	<10.0	10.0	02/07/2024	ND	204	102	200	5.12	
EXT DRO >C28-C36	<10.0	10.0	02/07/2024	ND					

Surrogate: 1-Chlorooctane 73.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 66.4 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	02/07/2024	Sampling Date:	02/06/2024
Reported:	02/12/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: AH -6 (0-1') (H240566-09)**

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	02/07/2024	ND	2.01	100	2.00	4.48		
Toluene*	<0.050	0.050	02/07/2024	ND	2.01	100	2.00	4.15		
Ethylbenzene*	<0.050	0.050	02/07/2024	ND	2.01	100	2.00	3.77		
Total Xylenes*	<0.150	0.150	02/07/2024	ND	5.84	97.4	6.00	3.74		
Total BTEx	<0.300	0.300	02/07/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/07/2024	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	02/07/2024	ND	193	96.3	200	0.155	
DRO >C10-C28*	<10.0	10.0	02/07/2024	ND	204	102	200	5.12	
EXT DRO >C28-C36	<10.0	10.0	02/07/2024	ND					

Surrogate: 1-Chlorooctane 80.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.5 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	02/07/2024	Sampling Date:	02/06/2024
Reported:	02/12/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: AH -7 (0-1') (H240566-10)**

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	02/07/2024	ND	2.01	100	2.00	4.48		
Toluene*	<0.050	0.050	02/07/2024	ND	2.01	100	2.00	4.15		
Ethylbenzene*	<0.050	0.050	02/07/2024	ND	2.01	100	2.00	3.77		
Total Xylenes*	<0.150	0.150	02/07/2024	ND	5.84	97.4	6.00	3.74		
Total BTEX	<0.300	0.300	02/07/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/07/2024	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	02/07/2024	ND	193	96.3	200	0.155	
DRO >C10-C28*	<10.0	10.0	02/07/2024	ND	204	102	200	5.12	
EXT DRO >C28-C36	<10.0	10.0	02/07/2024	ND					

Surrogate: 1-Chlorooctane 75.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 68.1 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	02/07/2024	Sampling Date:	02/06/2024
Reported:	02/12/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: AH -8 (0-1') (H240566-11)**

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	02/07/2024	ND	2.01	100	2.00	4.48		
Toluene*	<0.050	0.050	02/07/2024	ND	2.01	100	2.00	4.15		
Ethylbenzene*	<0.050	0.050	02/07/2024	ND	2.01	100	2.00	3.77		
Total Xylenes*	<0.150	0.150	02/07/2024	ND	5.84	97.4	6.00	3.74		
Total BTEX	<0.300	0.300	02/07/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	02/07/2024	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	02/07/2024	ND	193	96.3	200	0.155	
DRO >C10-C28*	<10.0	10.0	02/07/2024	ND	204	102	200	5.12	
EXT DRO >C28-C36	<10.0	10.0	02/07/2024	ND					

Surrogate: 1-Chlorooctane 89.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.9 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager

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

---

### Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

\*=Accredited Analyte

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

A handwritten signature in black ink, appearing to read "Celey D. Keene", is written over a horizontal line.

---

Celey D. Keene, Lab Director/Quality Manager





CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

**Company Name:** Tetra Tech

**Project Manager:** Christian Lull

**Address:** 8911 Capital of Texas Hwy, Suite 2310

**City:** Austin **State:** TX **Zip:**

**Phone #:** (512)565-0190 **Fax #:**

**Project #:** 212C-MD-03343 **Project Owner:** ConocoPhillips

**Project Name:** Gunner 8 Federal #008H Flowline

**Project Location:** Lea County, New Mexico

**Sampler Name:** Colton Bickersstaff

**P.O. #:**

**Company:** Tetra Tech

**Attn:** Christian Lull

**Address:** EMAIL

**City:**

**State:** **Zip:**

**Phone #:**

**Fax #:**

**BILL TO**

**ANALYSIS REQUEST**

**Lab I.D.** **Sample I.D.**

	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.	SAMPLING	DATE	TIME	TPH 8015M	BTEX 8021B	Chloride SM4500Cl-B							
			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER : ACID/BASE:														ICE / COOL
1 AH-1 (0-1')	G 1	X	X								2/6/2024		X	X	X							
2 AH-1 (2-2.5')	G 1	X	X								2/6/2024		X	X	X							
3 AH-2 (0-1')	G 1	X	X								2/6/2024		X	X	X							
4 AH-2 (2-2.25')	G 1	X	X								2/6/2024		X	X	X							
5 AH-3 (0-1')	G 1	X	X								2/6/2024		X	X	X							
6 AH-4 (0-1')	G 1	X	X								2/6/2024		X	X	X							
7 AH-4 (1-1.5')	G 1	X	X								2/6/2024		X	X	X							
8 AH-5 (0-1')	G 1	X	X								2/6/2024		X	X	X							
9 AH-6 (0-1')	G 1	X	X								2/6/2024		X	X	X							
10 AH-7 (0-1')	G 1	X	X								2/6/2024		X	X	X							

**Relinquished By:** Colton Bickersstaff

**Date:** 2/7/24 **Received By:** *[Signature]*

**Time:** 11:12

**Observed Temp., °C:** 34 **Corrected Temp., °C:**

**Sample Condition:** ☒ Intact ☐ Leaky ☐ No

**Checked By:** *[Signature]* **(Initials)**

**Remarks:**

**Verbal Result:** ☐ Yes ☐ No **Adet Phone #:**

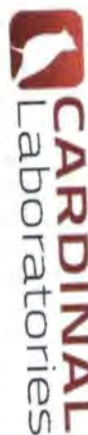
**APR results are emailed. Please provide Email address:** Christian.Lull@tetratech.com

**Thermometer:** ☒ Standard ☐ Backup (left, sample condition)

**Probe:** ☒ Yes ☐ No **Observed Temp., °C:**

**Thermometer ID:** #1140 **Correction Factor:** 4.0C

**Date:** 2/7/24 **Time:** 4:00 **Corrected Temp., °C:**



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

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

[illegible]



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

---

March 04, 2024

CHRISTIAN LLULL

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: GUNNER 8 FEDERAL #008H FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 02/29/24 10:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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:	02/29/2024	Sampling Date:	02/28/2024
Reported:	03/04/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA COUNTY,NM		

**Sample ID: T - 1 (0-1') (H241000-01)**

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	03/01/2024	ND	2.30	115	2.00	0.400	
Toluene*	<0.050	0.050	03/01/2024	ND	2.25	112	2.00	0.197	
Ethylbenzene*	<0.050	0.050	03/01/2024	ND	2.22	111	2.00	0.310	
Total Xylenes*	<0.150	0.150	03/01/2024	ND	6.40	107	6.00	0.308	
Total BTX	<0.300	0.300	03/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 71.5-134

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7860	16.0	03/01/2024	ND	416	104	400	3.77	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/29/2024	ND	187	93.3	200	0.378	
DRO >C10-C28*	<10.0	10.0	02/29/2024	ND	186	92.9	200	5.10	
EXT DRO >C28-C36	<10.0	10.0	02/29/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.6 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	02/29/2024	Sampling Date:	02/28/2024
Reported:	03/04/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA COUNTY,NM		

**Sample ID: T - 1 (2'-3') (H241000-02)**

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	03/01/2024	ND	2.30	115	2.00	0.400		
Toluene*	<0.050	0.050	03/01/2024	ND	2.25	112	2.00	0.197		
Ethylbenzene*	<0.050	0.050	03/01/2024	ND	2.22	111	2.00	0.310		
Total Xylenes*	<0.150	0.150	03/01/2024	ND	6.40	107	6.00	0.308		
Total BTEx	<0.300	0.300	03/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.4 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	10200	16.0	03/01/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/29/2024	ND	187	93.3	200	0.378	
DRO >C10-C28*	<10.0	10.0	02/29/2024	ND	186	92.9	200	5.10	
EXT DRO >C28-C36	<10.0	10.0	02/29/2024	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.4 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	02/29/2024	Sampling Date:	02/28/2024
Reported:	03/04/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA COUNTY,NM		

**Sample ID: T - 1 (3'-4') (H241000-03)**

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	03/01/2024	ND	2.30	115	2.00	0.400		
Toluene*	<0.050	0.050	03/01/2024	ND	2.25	112	2.00	0.197		
Ethylbenzene*	<0.050	0.050	03/01/2024	ND	2.22	111	2.00	0.310		
Total Xylenes*	<0.150	0.150	03/01/2024	ND	6.40	107	6.00	0.308		
Total BTEX	<0.300	0.300	03/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.1 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	12000	16.0	03/01/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/29/2024	ND	187	93.3	200	0.378	
DRO >C10-C28*	<10.0	10.0	02/29/2024	ND	186	92.9	200	5.10	
EXT DRO >C28-C36	<10.0	10.0	02/29/2024	ND					

Surrogate: 1-Chlorooctane 91.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.7 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	02/29/2024	Sampling Date:	02/28/2024
Reported:	03/04/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA COUNTY,NM		

**Sample ID: T - 1 (5'-6') (H241000-04)**

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	03/01/2024	ND	2.30	115	2.00	0.400		
Toluene*	<0.050	0.050	03/01/2024	ND	2.25	112	2.00	0.197		
Ethylbenzene*	<0.050	0.050	03/01/2024	ND	2.22	111	2.00	0.310		
Total Xylenes*	<0.150	0.150	03/01/2024	ND	6.40	107	6.00	0.308		
Total BTEX	<0.300	0.300	03/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.3 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	11000	16.0	03/01/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/29/2024	ND	187	93.3	200	0.378	
DRO >C10-C28*	<10.0	10.0	02/29/2024	ND	186	92.9	200	5.10	
EXT DRO >C28-C36	<10.0	10.0	02/29/2024	ND					

Surrogate: 1-Chlorooctane 94.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.5 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	02/29/2024	Sampling Date:	02/28/2024
Reported:	03/04/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA COUNTY,NM		

**Sample ID: T - 1 (7'-8') (H241000-05)**

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	03/01/2024	ND	2.30	115	2.00	0.400		
Toluene*	<0.050	0.050	03/01/2024	ND	2.25	112	2.00	0.197		
Ethylbenzene*	<0.050	0.050	03/01/2024	ND	2.22	111	2.00	0.310		
Total Xylenes*	<0.150	0.150	03/01/2024	ND	6.40	107	6.00	0.308		
Total BTEX	<0.300	0.300	03/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1260	16.0	03/01/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/29/2024	ND	187	93.3	200	0.378	
DRO >C10-C28*	<10.0	10.0	02/29/2024	ND	186	92.9	200	5.10	
EXT DRO >C28-C36	<10.0	10.0	02/29/2024	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	02/29/2024	Sampling Date:	02/28/2024
Reported:	03/04/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA COUNTY,NM		

**Sample ID: T - 1 (9'-10') (H241000-06)**

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	03/01/2024	ND	2.30	115	2.00	0.400		
Toluene*	<0.050	0.050	03/01/2024	ND	2.25	112	2.00	0.197		
Ethylbenzene*	<0.050	0.050	03/01/2024	ND	2.22	111	2.00	0.310		
Total Xylenes*	<0.150	0.150	03/01/2024	ND	6.40	107	6.00	0.308		
Total BTEX	<0.300	0.300	03/01/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2000	16.0	03/01/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/01/2024	ND	187	93.3	200	0.378	
DRO >C10-C28*	270	10.0	03/01/2024	ND	186	92.9	200	5.10	
EXT DRO >C28-C36	195	10.0	03/01/2024	ND					

Surrogate: 1-Chlorooctane 88.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.9 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

---

### 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

---

Cardinal Laboratories

\*=Accredited Analyte

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

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

---

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Tetra Tech

Project Manager: Christian Llull

Address: 8911 Capital o Texas Hwy, Suite 2310

City: Austin

Phone #: (512)565-0190

Project #: 212C-MD-03343

Project Name: Gunner 8 Federal #008H Flowline Release

Project Location: Lea County, New Mexico

Sampler Name: Colton Bickerstaff

101 East Marland, Hobbs, NM 88240

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

State: TX

Fax #: 212C-MD-03343

Project Owner: ConocoPhillips

City:

State:

Phone #:

BILL TO

P.O. #:

Company: Tetra Tech

Attn: Christian Llull

Address: EMAIL

City:

State:

Zip:

Fax #:

ANALYSIS REQUEST

TPH 8015M

BTEX 8021B

Chloride SM4500CI-B

Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX					DATE	TIME	TPH 8015M	BTEX 8021B	Chloride SM4500CI-B
			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE					
1034000	T-1 (0-1')	G 1						2/28/2024		X	X	X
	T-1 (2-3')	G 1						2/28/2024		X	X	X
	T-1 (3-4')	G 1						2/28/2024		X	X	X
	T-1 (5-6')	G 1						2/28/2024		X	X	X
	T-1 (7-8')	G 1						2/28/2024		X	X	X
	T-1 (9-10')	G 1						2/28/2024		X	X	X

Relinquished By: Colton Bickerstaff

Date: 2/28/24

Received By: Speed Keene

Time: 10:50

Delivered By: (Check One)

Sampler - UPS - Bus - Other:

Observed Temp, °C: 19

Corrected Temp, °C:

Sample Condition

Checked By: (Initials)

Thermometer ID: #140

Correction Factor: #140

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

REMARKS:

FORM-006 R 3.2 10/07/21

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



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

May 22, 2024

CHRISTIAN LLULL

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: GUNNER 8 FEDERAL #008H FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 05/16/24 14:48.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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 fluid and cursive, with the first name "Celey" and last name "Keene" clearly distinguishable.

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:	05/16/2024	Sampling Date:	05/16/2024
Reported:	05/22/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: BH - 1 (3'-4') (H242717-01)**

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	05/17/2024	ND	2.16	108	2.00	2.44		
Toluene*	<0.050	0.050	05/17/2024	ND	2.08	104	2.00	2.80		
Ethylbenzene*	<0.050	0.050	05/17/2024	ND	2.09	104	2.00	2.54		
Total Xylenes*	<0.150	0.150	05/17/2024	ND	5.95	99.1	6.00	2.64		
Total BTX	<0.300	0.300	05/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 90.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	11100	16.0	05/20/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/17/2024	ND	182	91.0	200	4.89	
DRO >C10-C28*	<10.0	10.0	05/17/2024	ND	167	83.4	200	3.60	
EXT DRO >C28-C36	<10.0	10.0	05/17/2024	ND					

Surrogate: 1-Chlorooctane 96.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.5 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	05/16/2024	Sampling Date:	05/16/2024
Reported:	05/22/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: BH - 1 (5'-6') (H242717-02)**

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	05/17/2024	ND	2.16	108	2.00	2.44		
Toluene*	<0.050	0.050	05/17/2024	ND	2.08	104	2.00	2.80		
Ethylbenzene*	<0.050	0.050	05/17/2024	ND	2.09	104	2.00	2.54		
Total Xylenes*	<0.150	0.150	05/17/2024	ND	5.95	99.1	6.00	2.64		
Total BTEX	<0.300	0.300	05/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 90.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	15200	16.0	05/20/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/17/2024	ND	182	91.0	200	4.89	
DRO >C10-C28*	<10.0	10.0	05/17/2024	ND	167	83.4	200	3.60	
EXT DRO >C28-C36	<10.0	10.0	05/17/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.7 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	05/16/2024	Sampling Date:	05/16/2024
Reported:	05/22/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: BH - 1 (7'-8') (H242717-03)**

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	05/17/2024	ND	2.16	108	2.00	2.44		
Toluene*	<0.050	0.050	05/17/2024	ND	2.08	104	2.00	2.80		
Ethylbenzene*	<0.050	0.050	05/17/2024	ND	2.09	104	2.00	2.54		
Total Xylenes*	<0.150	0.150	05/17/2024	ND	5.95	99.1	6.00	2.64		
Total BTEX	<0.300	0.300	05/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 91.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6660	16.0	05/20/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/17/2024	ND	182	91.0	200	4.89	
DRO >C10-C28*	<10.0	10.0	05/17/2024	ND	167	83.4	200	3.60	
EXT DRO >C28-C36	<10.0	10.0	05/17/2024	ND					

Surrogate: 1-Chlorooctane 92.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.5 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	05/16/2024	Sampling Date:	05/16/2024
Reported:	05/22/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: BH - 1 (9'-10') (H242717-04)**

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	05/17/2024	ND	2.16	108	2.00	2.44		
Toluene*	<0.050	0.050	05/17/2024	ND	2.08	104	2.00	2.80		
Ethylbenzene*	<0.050	0.050	05/17/2024	ND	2.09	104	2.00	2.54		
Total Xylenes*	<0.150	0.150	05/17/2024	ND	5.95	99.1	6.00	2.64		
Total BTEX	<0.300	0.300	05/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 91.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5860	16.0	05/20/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/17/2024	ND	182	91.0	200	4.89	
DRO >C10-C28*	<10.0	10.0	05/17/2024	ND	167	83.4	200	3.60	
EXT DRO >C28-C36	<10.0	10.0	05/17/2024	ND					

Surrogate: 1-Chlorooctane 97.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.3 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	05/16/2024	Sampling Date:	05/16/2024
Reported:	05/22/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: BH - 1 (14'-15') (H242717-05)**

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	05/17/2024	ND	2.16	108	2.00	2.44		
Toluene*	<0.050	0.050	05/17/2024	ND	2.08	104	2.00	2.80		
Ethylbenzene*	<0.050	0.050	05/17/2024	ND	2.09	104	2.00	2.54		
Total Xylenes*	<0.150	0.150	05/17/2024	ND	5.95	99.1	6.00	2.64		
Total BTEX	<0.300	0.300	05/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 89.7 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	944	16.0	05/20/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/18/2024	ND	182	91.0	200	4.89	
DRO >C10-C28*	<10.0	10.0	05/18/2024	ND	167	83.4	200	3.60	
EXT DRO >C28-C36	<10.0	10.0	05/18/2024	ND					

Surrogate: 1-Chlorooctane 87.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.1 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	05/16/2024	Sampling Date:	05/16/2024
Reported:	05/22/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: BH - 1 (19'-20') (H242717-06)**

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	05/17/2024	ND	2.16	108	2.00	2.44		
Toluene*	<0.050	0.050	05/17/2024	ND	2.08	104	2.00	2.80		
Ethylbenzene*	<0.050	0.050	05/17/2024	ND	2.09	104	2.00	2.54		
Total Xylenes*	<0.150	0.150	05/17/2024	ND	5.95	99.1	6.00	2.64		
Total BTEX	<0.300	0.300	05/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 91.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	816	16.0	05/20/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/17/2024	ND	170	84.9	200	2.87	
DRO >C10-C28*	<10.0	10.0	05/17/2024	ND	182	91.1	200	4.22	
EXT DRO >C28-C36	<10.0	10.0	05/17/2024	ND					

Surrogate: 1-Chlorooctane 83.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.0 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	05/16/2024	Sampling Date:	05/16/2024
Reported:	05/22/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: BH - 1 (24'-25') (H242717-07)**

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	05/18/2024	ND	2.16	108	2.00	2.44		
Toluene*	<0.050	0.050	05/18/2024	ND	2.08	104	2.00	2.80		
Ethylbenzene*	<0.050	0.050	05/18/2024	ND	2.09	104	2.00	2.54		
Total Xylenes*	<0.150	0.150	05/18/2024	ND	5.95	99.1	6.00	2.64		
Total BTEX	<0.300	0.300	05/18/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 91.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	05/20/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/17/2024	ND	170	84.9	200	2.87		
DRO >C10-C28*	<10.0	10.0	05/17/2024	ND	182	91.1	200	4.22		
EXT DRO >C28-C36	<10.0	10.0	05/17/2024	ND						

Surrogate: 1-Chlorooctane 95.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	05/16/2024	Sampling Date:	05/16/2024
Reported:	05/22/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: BH - 2 (3'-4') (H242717-08)**

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	05/18/2024	ND	2.16	108	2.00	2.44		
Toluene*	<0.050	0.050	05/18/2024	ND	2.08	104	2.00	2.80		
Ethylbenzene*	<0.050	0.050	05/18/2024	ND	2.09	104	2.00	2.54		
Total Xylenes*	<0.150	0.150	05/18/2024	ND	5.95	99.1	6.00	2.64		
Total BTEX	<0.300	0.300	05/18/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 91.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	10000	16.0	05/20/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/17/2024	ND	170	84.9	200	2.87	
DRO >C10-C28*	<10.0	10.0	05/17/2024	ND	182	91.1	200	4.22	
EXT DRO >C28-C36	<10.0	10.0	05/17/2024	ND					

Surrogate: 1-Chlorooctane 99.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	05/16/2024	Sampling Date:	05/16/2024
Reported:	05/22/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: BH - 2 (5'-6') (H242717-09)**

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	05/18/2024	ND	2.16	108	2.00	2.44		
Toluene*	<0.050	0.050	05/18/2024	ND	2.08	104	2.00	2.80		
Ethylbenzene*	<0.050	0.050	05/18/2024	ND	2.09	104	2.00	2.54		
Total Xylenes*	<0.150	0.150	05/18/2024	ND	5.95	99.1	6.00	2.64		
Total BTEX	<0.300	0.300	05/18/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 90.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	11600	16.0	05/20/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/17/2024	ND	170	84.9	200	2.87	
DRO >C10-C28*	<10.0	10.0	05/17/2024	ND	182	91.1	200	4.22	
EXT DRO >C28-C36	<10.0	10.0	05/17/2024	ND					

Surrogate: 1-Chlorooctane 99.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	05/16/2024	Sampling Date:	05/16/2024
Reported:	05/22/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: BH - 2 (7'-8') (H242717-10)**

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	05/18/2024	ND	2.16	108	2.00	2.44		
Toluene*	<0.050	0.050	05/18/2024	ND	2.08	104	2.00	2.80		
Ethylbenzene*	<0.050	0.050	05/18/2024	ND	2.09	104	2.00	2.54		
Total Xylenes*	<0.150	0.150	05/18/2024	ND	5.95	99.1	6.00	2.64		
Total BTEX	<0.300	0.300	05/18/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5200	16.0	05/20/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/17/2024	ND	170	84.9	200	2.87	
DRO >C10-C28*	<10.0	10.0	05/17/2024	ND	182	91.1	200	4.22	
EXT DRO >C28-C36	<10.0	10.0	05/17/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	05/16/2024	Sampling Date:	05/16/2024
Reported:	05/22/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: BH - 2 (9'-10') (H242717-11)**

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	05/18/2024	ND	2.16	108	2.00	2.44		
Toluene*	<0.050	0.050	05/18/2024	ND	2.08	104	2.00	2.80		
Ethylbenzene*	<0.050	0.050	05/18/2024	ND	2.09	104	2.00	2.54		
Total Xylenes*	<0.150	0.150	05/18/2024	ND	5.95	99.1	6.00	2.64		
Total BTEX	<0.300	0.300	05/18/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 91.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2000	16.0	05/20/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/17/2024	ND	170	84.9	200	2.87	
DRO >C10-C28*	<10.0	10.0	05/17/2024	ND	182	91.1	200	4.22	
EXT DRO >C28-C36	<10.0	10.0	05/17/2024	ND					

Surrogate: 1-Chlorooctane 95.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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:	05/16/2024	Sampling Date:	05/16/2024
Reported:	05/22/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	LEA COUNTY,NM		

**Sample ID: BH - 2 (14'-15') (H242717-12)**

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	05/18/2024	ND	2.16	108	2.00	2.44		
Toluene*	<0.050	0.050	05/18/2024	ND	2.08	104	2.00	2.80		
Ethylbenzene*	<0.050	0.050	05/18/2024	ND	2.09	104	2.00	2.54		
Total Xylenes*	<0.150	0.150	05/18/2024	ND	5.95	99.1	6.00	2.64		
Total BTEX	<0.300	0.300	05/18/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.0 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	544	16.0	05/20/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/17/2024	ND	170	84.9	200	2.87	
DRO >C10-C28*	<10.0	10.0	05/17/2024	ND	182	91.1	200	4.22	
EXT DRO >C28-C36	<10.0	10.0	05/17/2024	ND					

Surrogate: 1-Chlorooctane 87.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.8 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



---

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

---

### Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

\*=Accredited Analyte

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

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

---

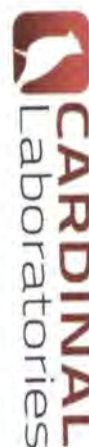
Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Tetra Tech		P.O. #:		BILL TO		ANALYSIS REQUEST	
Project Manager: Christian Llull		Company: Tetra Tech					
Address: 8911 Capital o Texas Hwy, Suite 2310		Attn: Christian Llull					
City: Austin		State: TX Zip:					
Phone #: (512)565-0190 Fax #: 747560		Address: EMAIL					
Project #: 212C-MD-03343 Project Owner: ConocoPhillips		City:					
Project Name: Gunner 8 Federal #0084 Flowline Release		State: Zip:					
Project Location: Lea County, New Mexico		Phone #:					
Sampler Name: Colton Bickelstaff		Fax #:					
Lab I.D.		PRESERV.		SAMPLING			
Sample I.D.		GROUNDWATER					
		WASTEWATER					
		SOIL					
		OIL					
		SLUDGE					
		OTHER					
		ACID/BASE:					
		ICE / COOL					
		OTHER					
		DATE		TIME			
1 BH-1 (3-4)		X		X		TPH 8015M	
2 BH-1 (5-6)		X		X		BTEX 8021B	
3 BH-1 (7-8)		X		X		Chloride SM4500CI-B	
4 BH-1 (9-10)		X		X			
5 BH-1 (14-15)		X		X			
6 BH-1 (19-20)		X		X			
7 BH-1 (24-25)		X		X			
8 BH-2 (3-4)		X		X			
9 BH-2 (5-6)		X		X			
10 BH-2 (7-8)		X		X			
11 BH-2 (9-10)		X		X			
12 BH-2 (14-15)		X		X			
13 BH-2 (19-20)		X		X			
14 BH-2 (24-25)		X		X			
15 BH-2 (3-4)		X		X			
16 BH-2 (5-6)		X		X			
17 BH-2 (7-8)		X		X			
18 BH-2 (9-10)		X		X			
19 BH-2 (14-15)		X		X			
20 BH-2 (19-20)		X		X			
21 BH-2 (24-25)		X		X			
22 BH-2 (3-4)		X		X			
23 BH-2 (5-6)		X		X			
24 BH-2 (7-8)		X		X			
25 BH-2 (9-10)		X		X			
26 BH-2 (14-15)		X		X			
27 BH-2 (19-20)		X		X			
28 BH-2 (24-25)		X		X			
29 BH-2 (3-4)		X		X			
30 BH-2 (5-6)		X		X			
31 BH-2 (7-8)		X		X			
32 BH-2 (9-10)		X		X			
33 BH-2 (14-15)		X		X			
34 BH-2 (19-20)		X		X			
35 BH-2 (24-25)		X		X			
36 BH-2 (3-4)		X		X			
37 BH-2 (5-6)		X		X			
38 BH-2 (7-8)		X		X			
39 BH-2 (9-10)		X		X			
40 BH-2 (14-15)		X		X			
41 BH-2 (19-20)		X		X			
42 BH-2 (24-25)		X		X			
43 BH-2 (3-4)		X		X			
44 BH-2 (5-6)		X		X			
45 BH-2 (7-8)		X		X			
46 BH-2 (9-10)		X		X			
47 BH-2 (14-15)		X		X			
48 BH-2 (19-20)		X		X			
49 BH-2 (24-25)		X		X			
50 BH-2 (3-4)		X		X			
51 BH-2 (5-6)		X		X			
52 BH-2 (7-8)		X		X			
53 BH-2 (9-10)		X		X			
54 BH-2 (14-15)		X		X			
55 BH-2 (19-20)		X		X			
56 BH-2 (24-25)		X		X			
57 BH-2 (3-4)		X		X			
58 BH-2 (5-6)		X		X			
59 BH-2 (7-8)		X		X			
60 BH-2 (9-10)		X		X			
61 BH-2 (14-15)		X		X			
62 BH-2 (19-20)		X		X			
63 BH-2 (24-25)		X		X			
64 BH-2 (3-4)		X		X			
65 BH-2 (5-6)		X		X			
66 BH-2 (7-8)		X		X			
67 BH-2 (9-10)		X		X			
68 BH-2 (14-15)		X		X			
69 BH-2 (19-20)		X		X			
70 BH-2 (24-25)		X		X			
71 BH-2 (3-4)		X		X			
72 BH-2 (5-6)		X		X			
73 BH-2 (7-8)		X		X			
74 BH-2 (9-10)		X		X			
75 BH-2 (14-15)		X		X			
76 BH-2 (19-20)		X		X			
77 BH-2 (24-25)		X		X			
78 BH-2 (3-4)		X		X			
79 BH-2 (5-6)		X		X			
80 BH-2 (7-8)		X		X			
81 BH-2 (9-10)		X		X			
82 BH-2 (14-15)		X		X			
83 BH-2 (19-20)		X		X			
84 BH-2 (24-25)		X		X			
85 BH-2 (3-4)		X		X			
86 BH-2 (5-6)		X		X			
87 BH-2 (7-8)		X		X			
88 BH-2 (9-10)		X		X			
89 BH-2 (14-15)		X		X			
90 BH-2 (19-20)		X		X			
91 BH-2 (24-25)		X		X			
92 BH-2 (3-4)		X		X			
93 BH-2 (5-6)		X		X			
94 BH-2 (7-8)		X		X			
95 BH-2 (9-10)		X		X			
96 BH-2 (14-15)		X		X			
97 BH-2 (19-20)		X		X			
98 BH-2 (24-25)		X		X			
99 BH-2 (3-4)		X		X			
100 BH-2 (5-6)		X		X			
101 BH-2 (7-8)		X		X			
102 BH-2 (9-10)		X		X			
103 BH-2 (14-15)		X		X			
104 BH-2 (19-20)		X		X			
105 BH-2 (24-25)		X		X			
106 BH-2 (3-4)		X		X			
107 BH-2 (5-6)		X		X			
108 BH-2 (7-8)		X		X			
109 BH-2 (9-10)		X		X			
110 BH-2 (14-15)		X		X			
111 BH-2 (19-20)		X		X			
112 BH-2 (24-25)		X		X			
113 BH-2 (3-4)		X		X			
114 BH-2 (5-6)		X		X			
115 BH-2 (7-8)		X		X			
116 BH-2 (9-10)		X		X			
117 BH-2 (14-15)		X		X			
118 BH-2 (19-20)		X		X			
119 BH-2 (24-25)		X		X			
120 BH-2 (3-4)		X		X			
121 BH-2 (5-6)		X		X			
122 BH-2 (7-8)		X		X			
123 BH-2 (9-10)		X		X			
124 BH-2 (14-15)		X		X			
125 BH-2 (19-20)		X		X			
126 BH-2 (24-25)		X		X			
127 BH-2 (3-4)		X		X			
128 BH-2 (5-6)		X		X			
129 BH-2 (7-8)		X		X			
130 BH-2 (9-10)		X		X			
131 BH-2 (14-15)		X		X			
132 BH-2 (19-20)		X		X			
133 BH-2 (24-25)		X		X			
134 BH-2 (3-4)		X		X			
135 BH-2 (5-6)		X		X			
136 BH-2 (7-8)		X		X			
137 BH-2 (9-10)		X		X			
138 BH-2 (14-15)		X		X			
139 BH-2 (19-20)		X		X			
140 BH-2 (24-25)		X		X			
141 BH-2 (3-4)		X		X			
142 BH-2 (5-6)		X		X			
143 BH-2 (7-8)		X		X			
144 BH-2 (9-10)		X		X			
145 BH-2 (14-15)		X		X			
146 BH-2 (19-20)		X		X			
147 BH-2 (24-25)		X		X			
148 BH-2 (3-4)		X		X			
149 BH-2 (5-6)		X		X			
150 BH-2 (7-8)		X		X			
151 BH-2 (9-10)		X		X			
152 BH-2 (14-15)		X		X			
153 BH-2 (19-20)		X		X			
154 BH-2 (24-25)		X		X			
155 BH-2 (3-4)		X		X			
156 BH-2 (5-6)		X		X			
157 BH-2 (7-8)		X		X			
158 BH-2 (9-10)		X		X			
159 BH-2 (14-15)		X		X			
160 BH-2 (19-20)		X		X			
161 BH-2 (24-25)		X		X			
162 BH-2 (3-4)		X		X			
163 BH-2 (5-6)		X		X			
164 BH-2 (7-8)		X		X			
165 BH-2 (9-10)		X		X			
166 BH-2 (14-15)		X		X			
167 BH-2 (19-20)		X		X			
168 BH-2 (24-25)		X		X			
169 BH-2 (3-4)		X		X			
170 BH-2 (5-6)		X		X			
171 BH-2 (7-8)		X		X			
172 BH-2 (9-10)		X		X			
173 BH-2 (14-15)		X		X			
174 BH-2 (19-20)		X		X			
175 BH-2 (24-25)		X		X			
176 BH-2 (3-4)		X		X			
177 BH-2 (5-6)		X		X			
178 BH-2 (7-8)		X		X			
179 BH-2 (9-10)		X		X			
180 BH-2 (14-15)		X		X			
181 BH-2 (19-20)		X		X			
182 BH-2 (24-25)		X		X			
183 BH-2 (3-4)		X		X			
184 BH-2 (5-6)		X		X			
185 BH-2 (7-8)		X		X			
186 BH-2 (9-10)		X		X			
187 BH-2 (14-15)		X		X			
188 BH-2 (19-20)		X		X			
189 BH-2 (24-25)		X		X			
190 BH-2 (3-4)		X		X			
191 BH-2 (5-6)		X		X			
192 BH-2 (7-8)		X		X			
193 BH-2 (9-10)		X		X			
194 BH-2 (14-15)		X		X			
195 BH-2 (19-20)		X		X			
196 BH-2 (24-25)		X		X			
197 BH-2 (3-4)		X		X			
198 BH-2 (5-6)		X		X			
199 BH-2 (7-8)		X		X			
200 BH-2 (9-10)		X		X			
201 BH-2 (14-15)		X		X			
202 BH-2 (19-20)		X		X			
203 BH-2 (24-25)		X		X			
204 BH-2 (3-4)		X		X			
205 BH-2 (5-6)		X		X			
206 BH-2 (7-8)		X		X			
207 BH-2 (9-10)		X		X			
208 BH-2 (14-15)		X		X			
209 BH-2 (19-20)		X		X			
210 BH-2 (24-25)		X		X			
211 BH-2 (3-4)		X		X			
212 BH-2 (5-6)		X		X			
213 BH-2 (7-8)		X		X			
214 BH-2 (9-10)		X		X			
215 BH-2 (14-15)		X		X			
216 BH-2 (19-20)		X		X			
217 BH-2 (24-25)		X		X			
218 BH-2 (3-4)		X		X			
219 BH-2 (5-6)		X		X			
220 BH-2 (7-8)		X		X			
221 BH-2 (9-10)		X		X			
222 BH-2 (14-15)		X		X			
223 BH-2 (19-20)		X		X			
224 BH-2 (24-25)		X		X			
225 BH-2 (3-4)		X		X			
226 BH-2 (5-6)		X		X			
227 BH-2 (7-8)		X		X			
228 BH-2 (9-10)		X		X			
229 BH-2 (14-15)		X		X			
230 BH-2 (19-20)		X		X			
231 BH-2 (24-25)		X		X			
232 BH-2 (3-4)		X		X			
233 BH-2 (5-6)		X		X			
234 BH-2 (7-8)		X		X			
235 BH-2 (9-10)		X		X			
236 BH-2 (14-15)		X		X			



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Tetra Tech

## BILL TO

## ANALYSIS REQUEST

Project Manager: Christian Lull

P.O. #:

Address: 8911 Capital o Texas Hwy, Suite 2310

Company: Tetra Tech

City: Austin

State: TX Zip:

Attn: Christian Lull

Phone #: (512)565-0190 Fax #:

Address: EMAIL

Project #: 212C-MD-03343 Project Owner: ConocoPhillips

City: State: Zip:

Project Location: Lea County, New Mexico

Phone #:

Sampler Name: Colton Bickerstaff

Fax #:

Lab I.D.

Sample I.D.

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX						PRESERV.	SAMPLING	DATE	TIME	TPH 8015M	BTEX 8021B	Chloride SM4500Cl-B	HOLD
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER								
11	BH-2 (9-10')	G 1	X	X								5/16/2024		X	X	X	
12	BH-2 (14-15')	G 1	X	X								5/16/2024		X	X	X	
13	BH-2 (19-20')	G 1	X	X								5/16/2024		X	X	X	
14	BH-2 (24-25')	G 1	X	X								5/16/2024		X	X	X	

PLEASE NOTE: Liability and Damages: Cardinal's liability and damage recovery for any claim arising out of this service is limited to the amount paid by the client for the service. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of data, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services furnished by Cardinal, regardless of whether such claim is based upon any of the above stated theories or otherwise.

Relinquished By: Colton Bickerstaff

Date: 5/16/24

Received By:

Relinquished By:

Date:

Received By:

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

Observed Temp. °C  
Corrected Temp. °C

Sample Condition  
Cool intact ☒ Yes ☐ No ☐ No

CHECKED BY: (Initials)

Thermometer ID #140

Standard ☒ Buscena (only) Sample Condition

Correction Factor

Yes ☐ No ☐ Corrected Temp. °C

FORM-006 R 3.2 10/07/21

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





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

---

October 30, 2024

LISBETH CHAVIRA

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: GUNNER 8 FEDERAL #008H FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 10/29/24 14:08.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](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  
 LISBETH CHAVIRA  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	10/29/2024	Sampling Date:	10/29/2024
Reported:	10/30/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY,NM		

**Sample ID: BACKFILL - COMPOSITE (H246559-01)**

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	10/29/2024	ND	2.05	102	2.00	1.48		
Toluene*	<0.050	0.050	10/29/2024	ND	2.03	102	2.00	1.21		
Ethylbenzene*	<0.050	0.050	10/29/2024	ND	2.08	104	2.00	0.00394		
Total Xylenes*	<0.150	0.150	10/29/2024	ND	6.22	104	6.00	0.456		
Total BTEX	<0.300	0.300	10/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/30/2024	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	10/29/2024	ND	220	110	200	4.28	
DRO >C10-C28*	<10.0	10.0	10/29/2024	ND	213	106	200	2.08	
EXT DRO >C28-C36	<10.0	10.0	10/29/2024	ND					

Surrogate: 1-Chlorooctane 79.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.9 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager

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

---

### 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

---

Cardinal Laboratories

\*=Accredited Analyte

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

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

---

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

<b>Project Manager:</b> Lisbeth Chavira <b>Address:</b> 8911 Capital Of Texas Hwy, Suite 2310 <b>City:</b> Austin <b>State:</b> TX <b>Zip:</b> _____ <b>Phone #:</b> (512) 565-0190 <b>Fax #:</b> _____ <b>Project #:</b> 212C-MD-03343 <b>Project Owner:</b> Comoco/Phillips <b>Project Name:</b> Gunner 8 Federal #008H Flowline Release <b>Project Location:</b> Lea County, New Mexico <b>Sampler Name:</b> Will Erftendson <b>Lab I.D.:</b> _____										<b>BILL TO</b> <b>P.O. #:</b> _____ <b>Company:</b> Tetra Tech <b>Attn:</b> Lisbeth Chavira <b>Address: EMAIL</b> _____ <b>City:</b> _____ <b>State:</b> _____ <b>Zip:</b> _____ <b>Phone #:</b> _____ <b>Fax #:</b> _____										<b>ANALYSIS REQUEST</b>																													
<b>PLEASE NOTE:</b> Liability and Coverage: Contractor's liability and coverage is limited to the amount paid by the client for the analysis. All claims including those for negligence and any other claims whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the analysis.										<b>Backfill-Composite</b>										<b>Sample I.D.</b>																													
										(GRAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :										MATRIX PRESERV. SAMPLING																													
Date: 10/29/24 Time: 11:08 Received By: <i>[Signature]</i>										Date: _____ Time: _____ Received By: _____										Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No    Add'l Phone #: _____ All Results are emailed. Please provide Email address: Lisbeth.Chavira@tetratech.com																													
Delivered By: (Circle One) Sampler - UPS - Bus - Other: _____										Observed Temp. °C: 45C Corrected Temp. °C: 39C										Sample Condition: Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>										CHECKED BY: <i>[Signature]</i> (Initials)										Turnaround Time: Standard <input type="checkbox"/> Rush YES 12hr FAX <input checked="" type="checkbox"/> Backline (only) Sample Condition: Cool <input type="checkbox"/> Intact <input type="checkbox"/> Observed Temp. °C: _____ Thermometer ID #140 Correction Factor 0.5°C Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Corrected Temp. °C: _____									
Relinquished By: Will Erftendson										Relinquished By: _____										REMARKS: Backfill sample collected at The Intrepid PH, located at: 32.133182, -103.278828																													

Page 4 of 4





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

---

November 05, 2024

LISBETH CHAVIRA

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: GUNNER 8 FEDERAL #008H FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 11/04/24 15:42.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](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  
 LISBETH CHAVIRA  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	11/04/2024	Sampling Date:	11/04/2024
Reported:	11/05/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY,NM		

**Sample ID: FS - 1 (H246695-01)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/05/2024	ND	1.86	93.1	2.00	11.1		
Toluene*	<0.050	0.050	11/05/2024	ND	1.79	89.6	2.00	10.2		
Ethylbenzene*	<0.050	0.050	11/05/2024	ND	1.81	90.7	2.00	8.34		
Total Xylenes*	<0.150	0.150	11/05/2024	ND	5.39	89.8	6.00	8.28		
Total BTX	<0.300	0.300	11/05/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	15600	16.0	11/05/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2024	ND	187	93.5	200	23.1	
DRO >C10-C28*	<10.0	10.0	11/04/2024	ND	176	88.1	200	26.5	
EXT DRO >C28-C36	<10.0	10.0	11/04/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.6 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	11/04/2024	Sampling Date:	11/04/2024
Reported:	11/05/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY,NM		

**Sample ID: FS - 2 (H246695-02)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/05/2024	ND	1.86	93.1	2.00	11.1		
Toluene*	<0.050	0.050	11/05/2024	ND	1.79	89.6	2.00	10.2		
Ethylbenzene*	<0.050	0.050	11/05/2024	ND	1.81	90.7	2.00	8.34		
Total Xylenes*	<0.150	0.150	11/05/2024	ND	5.39	89.8	6.00	8.28		
Total BTEX	<0.300	0.300	11/05/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 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	22000	16.0	11/05/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2024	ND	187	93.5	200	23.1	
DRO >C10-C28*	<10.0	10.0	11/04/2024	ND	176	88.1	200	26.5	
EXT DRO >C28-C36	<10.0	10.0	11/04/2024	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.2 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	11/04/2024	Sampling Date:	11/04/2024
Reported:	11/05/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY,NM		

**Sample ID: FS - 3 (H246695-03)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/05/2024	ND	1.86	93.1	2.00	11.1		
Toluene*	<0.050	0.050	11/05/2024	ND	1.79	89.6	2.00	10.2		
Ethylbenzene*	<0.050	0.050	11/05/2024	ND	1.81	90.7	2.00	8.34		
Total Xylenes*	<0.150	0.150	11/05/2024	ND	5.39	89.8	6.00	8.28		
Total BTEX	<0.300	0.300	11/05/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	24800	16.0	11/05/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2024	ND	187	93.5	200	23.1	
DRO >C10-C28*	<10.0	10.0	11/04/2024	ND	176	88.1	200	26.5	
EXT DRO >C28-C36	<10.0	10.0	11/04/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.1 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received:	11/04/2024	Sampling Date:	11/04/2024
Reported:	11/05/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY,NM		

**Sample ID: NSW - 1 (H246695-04)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/05/2024	ND	1.86	93.1	2.00	11.1	
Toluene*	<0.050	0.050	11/05/2024	ND	1.79	89.6	2.00	10.2	
Ethylbenzene*	<0.050	0.050	11/05/2024	ND	1.81	90.7	2.00	8.34	
Total Xylenes*	<0.150	0.150	11/05/2024	ND	5.39	89.8	6.00	8.28	
Total BTEX	<0.300	0.300	11/05/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 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	320	16.0	11/05/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2024	ND	187	93.5	200	23.1	
DRO >C10-C28*	<10.0	10.0	11/04/2024	ND	176	88.1	200	26.5	
EXT DRO >C28-C36	<10.0	10.0	11/04/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.0 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	11/04/2024	Sampling Date:	11/04/2024
Reported:	11/05/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY,NM		

**Sample ID: SSW - 1 (H246695-05)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/05/2024	ND	1.86	93.1	2.00	11.1		
Toluene*	<0.050	0.050	11/05/2024	ND	1.79	89.6	2.00	10.2		
Ethylbenzene*	<0.050	0.050	11/05/2024	ND	1.81	90.7	2.00	8.34		
Total Xylenes*	<0.150	0.150	11/05/2024	ND	5.39	89.8	6.00	8.28		
Total BTEX	<0.300	0.300	11/05/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 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	48.0	16.0	11/05/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2024	ND	187	93.5	200	23.1	
DRO >C10-C28*	<10.0	10.0	11/04/2024	ND	176	88.1	200	26.5	
EXT DRO >C28-C36	<10.0	10.0	11/04/2024	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.9 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	11/04/2024	Sampling Date:	11/04/2024
Reported:	11/05/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY,NM		

**Sample ID: ESW - 1 (H246695-06)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/05/2024	ND	1.86	93.1	2.00	11.1		
Toluene*	<0.050	0.050	11/05/2024	ND	1.79	89.6	2.00	10.2		
Ethylbenzene*	<0.050	0.050	11/05/2024	ND	1.81	90.7	2.00	8.34		
Total Xylenes*	<0.150	0.150	11/05/2024	ND	5.39	89.8	6.00	8.28		
Total BTEX	<0.300	0.300	11/05/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 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	80.0	16.0	11/05/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2024	ND	187	93.5	200	23.1	
DRO >C10-C28*	<10.0	10.0	11/04/2024	ND	176	88.1	200	26.5	
EXT DRO >C28-C36	<10.0	10.0	11/04/2024	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.5 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	11/04/2024	Sampling Date:	11/04/2024
Reported:	11/05/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY,NM		

**Sample ID: WSW - 1 (H246695-07)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/05/2024	ND	1.86	93.1	2.00	11.1		
Toluene*	<0.050	0.050	11/05/2024	ND	1.79	89.6	2.00	10.2		
Ethylbenzene*	<0.050	0.050	11/05/2024	ND	1.81	90.7	2.00	8.34		
Total Xylenes*	<0.150	0.150	11/05/2024	ND	5.39	89.8	6.00	8.28		
Total BTEX	<0.300	0.300	11/05/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	11/05/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/04/2024	ND	187	93.5	200	23.1	
DRO >C10-C28*	<10.0	10.0	11/04/2024	ND	176	88.1	200	26.5	
EXT DRO >C28-C36	<10.0	10.0	11/04/2024	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.1 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager





---

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

---

### Notes and Definitions

QR-04	The RPD for the BS/BSD was outside of historical limits.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

\*=Accredited Analyte

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

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

---

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Tetra Tech		P.O. #:		BILL TO										ANALYSIS REQUEST									
Project Manager: Lisbeth Chavira		Address: 8911 Capital Of Texas Hwy, Suite 2310		City: Austin		State: TX		Zip:		Attn: Lisbeth Chavira		Address: EMAIL		City:		State:		Zip:		Phone #:		Fax #:	
Project #: 212C-MD-03343		Project Owner: ConocoPhillips		City:		State:		Zip:		Phone #:		Fax #:		TPH 8015M		BTEX 8021B		Chloride SM4500Cl-B					
Project Name: Gunner 8 Federal #008H Flowline Release		Project Location: Lea County, New Mexico		Sample Name: Colton Bickerstaff		Lab I.D.:		Sample I.D.:		(G)RAB OR (C)OMP		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE	
OTHER : ACID/BASE :		ICE / COOL		OTHER :		DATE		TIME		TPH 8015M		BTEX 8021B		Chloride SM4500Cl-B									
FOR LAB USE ONLY		MATRIX		PRESERV.		SAMPLING																	
1 FS-1		C 1		X		11/4/2024		13:00		X		X		X									
2 FS-2		C 1		X		11/4/2024		13:10		X		X		X									
3 FS-3		C 1		X		11/4/2024		13:20		X		X		X									
4 NSW-1		C 1		X		11/4/2024		13:30		X		X		X									
5 SSW-1		C 1		X		11/4/2024		13:40		X		X		X									
6 ESW-1		C 1		X		11/4/2024		13:50		X		X		X									
7 WSW-1		C 1		X		11/4/2024		14:00		X		X		X									



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

---

November 06, 2024

LISBETH CHAVIRA

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: GUNNER 8 FEDERAL #008H FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 11/06/24 13:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](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  
 LISBETH CHAVIRA  
 901 WEST WALL STREET , STE 100  
 MIDLAND TX, 79701  
 Fax To: (432) 682-3946

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/06/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY,NM		

**Sample ID: FS - 2 ( 5' ) (H246762-01)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/06/2024	ND	1.92	96.1	2.00	14.4		
Toluene*	<0.050	0.050	11/06/2024	ND	1.98	99.1	2.00	15.1		
Ethylbenzene*	<0.050	0.050	11/06/2024	ND	1.89	94.5	2.00	16.5		
Total Xylenes*	<0.150	0.150	11/06/2024	ND	6.08	101	6.00	14.6		
Total BTX	<0.300	0.300	11/06/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	3400	16.0	11/06/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/06/2024	ND	201	100	200	0.754	
DRO >C10-C28*	<10.0	10.0	11/06/2024	ND	189	94.5	200	0.390	
EXT DRO >C28-C36	<10.0	10.0	11/06/2024	ND					

Surrogate: 1-Chlorooctane 90.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.6 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received:	11/06/2024	Sampling Date:	11/06/2024
Reported:	11/06/2024	Sampling Type:	Soil
Project Name:	GUNNER 8 FEDERAL #008H FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03343	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA COUNTY,NM		

**Sample ID: FS - 3 ( 5' ) (H246762-02)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/06/2024	ND	1.92	96.1	2.00	14.4		
Toluene*	<0.050	0.050	11/06/2024	ND	1.98	99.1	2.00	15.1		
Ethylbenzene*	<0.050	0.050	11/06/2024	ND	1.89	94.5	2.00	16.5		
Total Xylenes*	<0.150	0.150	11/06/2024	ND	6.08	101	6.00	14.6		
Total BTEX	<0.300	0.300	11/06/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	10200	16.0	11/06/2024	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/06/2024	ND	201	100	200	0.754	
DRO >C10-C28*	<10.0	10.0	11/06/2024	ND	189	94.5	200	0.390	
EXT DRO >C28-C36	<10.0	10.0	11/06/2024	ND					

Surrogate: 1-Chlorooctane 97.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.6 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



---

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

---

### Notes and Definitions

QR-04	The RPD for the BS/BSD was outside of historical limits.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

\*=Accredited Analyte

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

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

---

Celey D. Keene, Lab Director/Quality Manager



**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

[illegible]

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

General Information  
Phone: (505) 629-6116

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

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

QUESTIONS

Action 417846

**QUESTIONS**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 417846
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2400930878
Incident Name	NAPP2400930878 GUNNER 8 FEDERAL 008H @ 0
Incident Type	Produced Water Release
Incident Status	Reclamation Report Received
Incident Facility	[fAPP2203943927] Gunner 8 Fed 8H - RT Btty

<b>Location of Release Source</b>	
<i>Please answer all the questions in this group.</i>	
Site Name	GUNNER 8 FEDERAL 008H
Date Release Discovered	12/21/2023
Surface Owner	Federal

<b>Incident Details</b>	
<i>Please answer all the questions in this group.</i>	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

<b>Nature and Volume of Release</b>	
<i>Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.</i>	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure   Flow Line - Production   Produced Water   Released: 2 BBL   Recovered: 1 BBL   Lost: 1 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.



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

General Information  
Phone: (505) 629-6116

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

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

QUESTIONS, Page 2

Action 417846

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 417846
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	More info needed to determine if this will be treated as a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Unavailable.
Reasons why this would be considered a submission for a notification of a major release	Unavailable.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

**Initial Response**

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Brittany Esparza Title: Environmental Technician Email: <a href="mailto:brittany.Esparza@ConocoPhillips.com">brittany.Esparza@ConocoPhillips.com</a> Date: 01/09/2024
--	--

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

General Information  
Phone: (505) 629-6116

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

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

QUESTIONS, Page 3

Action 417846

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 417846
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS****Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Greater than 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	None
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

**Remediation Plan**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

**Soil Contamination Sampling:** (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride (EPA 300.0 or SM4500 Cl B)	16000
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	465
GRO+DRO (EPA SW-846 Method 8015M)	465
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	10/01/2024
On what date will (or did) the final sampling or liner inspection occur	10/03/2024
On what date will (or was) the remediation complete(d)	10/05/2024
What is the estimated surface area (in square feet) that will be reclaimed	537
What is the estimated volume (in cubic yards) that will be reclaimed	80
What is the estimated surface area (in square feet) that will be remediated	537
What is the estimated volume (in cubic yards) that will be remediated	80

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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

General Information  
Phone: (505) 629-6116

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

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

QUESTIONS, Page 4

Action 417846

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:
	229137
	Action Number:
	417846
Action Type:	
[C-141] Reclamation Report C-141 (C-141-v-Reclamation)	

**QUESTIONS**

<b>Remediation Plan (continued)</b>	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
<b>This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:</b>	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	Gunner 8 Fed 8H - RT Btty [fAPP2203943927]
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	No
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	No
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	Yes
OTHER (Non-listed remedial process)	No
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Brittany Esparza Title: Environmental Technician Email: <a href="mailto:brittany.Esparza@ConocoPhillips.com">brittany.Esparza@ConocoPhillips.com</a> Date: 01/07/2025
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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

General Information  
Phone: (505) 629-6116

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

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

QUESTIONS, Page 5

Action 417846

QUESTIONS (continued)

Operator:  COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:  229137
	Action Number:  417846
	Action Type:  [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No



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

General Information  
Phone: (505) 629-6116

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

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

QUESTIONS, Page 6

Action 417846

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 417846
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

Sampling Event Information	
Last sampling notification (C-141N) recorded	400001
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/06/2024
What was the (estimated) number of samples that were to be gathered	3
What was the sampling surface area in square feet	537

Remediation Closure Request	
<i>Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.</i>	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	537
What was the total volume (cubic yards) remediated	106
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	537
What was the total volume (in cubic yards) reclaimed	106
Summarize any additional remediation activities not included by answers (above)	NA
<p><i>The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.</i></p>	
<p>I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.</p>	
I hereby agree and sign off to the above statement	Name: Brittany Esparza Title: Environmental Technician Email: <a href="mailto:brittany.Esparza@ConocoPhillips.com">brittany.Esparza@ConocoPhillips.com</a> Date: 01/07/2025

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

General Information  
Phone: (505) 629-6116

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

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

QUESTIONS, Page 7

Action 417846

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 417846
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

<b>Reclamation Report</b>	
<i>Only answer the questions in this group if all reclamation steps have been completed.</i>	
Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	537
What was the total volume of replacement material (in cubic yards) for this site	106
<i>Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.</i>	
Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseedling commence(d)	11/07/2024
Summarize any additional reclamation activities not included by answers (above)	NA
<i>The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseedling plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 NMAC.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.	
I hereby agree and sign off to the above statement	Name: Brittany Esparza Title: Environmental Technician Email: <a href="mailto:brittany.Esparza@ConocoPhillips.com">brittany.Esparza@ConocoPhillips.com</a> Date: 01/07/2025

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

General Information  
Phone: (505) 629-6116

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

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

QUESTIONS, Page 8

Action 417846

QUESTIONS (continued)

Operator:  COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:  229137
	Action Number:  417846
	Action Type:  [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

<b>Revegetation Report</b>	
<i>Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.</i>	
Requesting a restoration complete approval with this submission	No
<i>Per Paragraph (4) of Subsection (D) of 19.15.29.13 NMAC for any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.</i>	

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

General Information  
Phone: (505) 629-6116

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

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

CONDITIONS

Action 417846

CONDITIONS

Operator:  COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:  229137
	Action Number:  417846
	Action Type:  [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	The Reclamation Report is approved. A revegetation report will not be accepted until revegetation of the release area, including areas reasonably needed for production or drilling activities, is complete and meet the requirements of 19.15.29.13 NMAC. Areas not reasonably needed for production or drilling activities will still need to be reclaimed and revegetated as early as practicable.	2/13/2025