



May 24, 2024

District Supervisor  
Oil Conservation Division, District 2  
506 W. Texas Ave.  
Artesia, New Mexico 88210

**Re: Revised Closure Report  
ConocoPhillips Company (Heritage COG Operating LLC)  
GJ West Coop Unit South Tank Battery Release  
Unit Letter B, Section 28, Township 17 South, Range 29 East  
Eddy County, New Mexico  
2RP-4923  
Incident ID nMAP1822950996**

Dear Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips Company (ConocoPhillips) to assess a historical release that occurred from the GJ West Coop Unit South Tank Battery. The approximate release site coordinates are 32.811015°, -104.075707°, located in the Public Land Survey System (PLSS) Unit Letter B, Section 28, Township 17 South, Range 29 East, Eddy County, New Mexico (Site). The Site location is shown on Figures 1 and 2. The site is located on State Trust Lands.

## BACKGROUND

According to the State of New Mexico Oil Conservation Division (NMOCD) C-141 Initial Report (Appendix A), the release was discovered on August 10, 2018. The release was caused by Lact Services leaving the proving valves on the LACT unit open. The release consisted of approximately 34 barrels (bbls) of crude oil, of which 5 bbls were recovered during the initial response activities via vacuum truck. The release occurred on the lease pad as well as in the adjacent pasture. The NMOCD received the C-141 on August 10, 2028 and, subsequently, assigned the release the Incident ID nMAP1822950996 and the remediation permit (RP) number 2RP-4923.

The GJ West Coop South Tank Battery Release (2RP-4923/nMAP1822950996) is included in an Agreed Compliance Order ("ACO") with the NMOCD, related to unresolved releases from ConocoPhillips' predecessor-in-interest ("COG"). The ACO required ConocoPhillips to submit characterization and/or remediation plans with proposed timeframes for the ongoing corrective actions or remediations identified to the NMOCD no later than March 31, 2022.

As of March 11, 2022, ConocoPhillips has submitted characterization and remediation plans for all of the properties identified and owned. All documentation was submitted in accordance with ACO terms. These documents have been submitted to the NMOCD via CentreStack, a Secure Access & File Sharing platform, at the direction of Mr. Bradford Billings, NMOCD. The Remediation Plan previously completed by White Buffalo Environmental Inc. (WBE) was included as a portion of the ACO.

## LAND OWNERSHIP

According to the NMOCD Oil and Gas Map, the site is located on State Trust Lands managed by the New Mexico State Land Office (NMSLO). A review of the NMSLO Land Status Map was completed, and the Site is within active oil and gas lease B005140012. The active lease is under Concho Oil & Gas LLC/COG Operations LLC. Based on guidance provided by the NMSLO, as the release footprint is located on an

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active oil and gas lease and the footprint is wholly located within the boundaries of the active oil and gas lease, no Remediation Right of Entry (ROE) is required at the Site.

## CULTURAL PROPERTIES PROTECTION

As of December 1, 2022, the NMSLO Cultural Properties Protection (CPP) Rule is in effect. In tandem with this CPP rule, the NMSLO has begun enforcing application and permitting requirements per Rule 12 (19.2.12 NMAC) for Water/Soil Boring Exploration Permits. Any intrusive activities must be permitted through the Water Bureau, Oil, Gas, and Minerals Division, NMSLO.

To comply with the NMSLO CPP Rule, Tetra Tech, on behalf of ConocoPhillips, contracted SWCA Environmental Consultants (SWCA) to conduct an intensive pedestrian survey for the GJ West Coop South TB release covering 8.81 acres (3.56 ha) on the SLO-managed land Eddy County, New Mexico. On June 7, 2023, SWCA surveyed a 100-foot buffer from the inadvertent release location footprint, located entirely on SLO-managed land.

No archaeological sites or historic properties were observed during the investigation. Two isolated occurrences (IO) were discovered. IO 1 consisted of three quartzite pieces of lithic debitage and six coke bottle glass pieces. IO 2 consisted of a chert tested cobble and lithic debitage piece of quartzite with a cortical platform that measured 3-4 cm. No additional investigation or treatment was recommended regarding the current undertaking. A copy of the NMCRIS Activity No. 153146 is included in the 2023 Work Plan.

## SITE CHARACTERIZATION

A site characterization was performed in accordance with 19.15.29.11 New Mexico State Administrative Code (NMAC) and the guidance document Process Updates re: Submissions of Form C-141 Release Notification and Corrective Actions (12/01/2023). A summary of the site characterization is presented below:

Shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (feet bgs)	76 feet bgs
Method used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water?	No
<b><u>What is the minimum distance between the closest lateral extents of the release and the following surface areas:</u></b>	
A continuously flowing watercourse or any other significant watercourse	Greater than 5 miles
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 miles
An occupied permanent residence, school, hospital, institution, or church	18 miles
A spring or private domestic fresh water well used by less than five households for domestic or stock watering purposes	1.1 miles
Any other fresh water well or spring	0.63 miles
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 miles
A wetland	0.25 miles
A subsurface mine	Greater than 5 miles
A (non-karst) unstable area	Greater than 5 miles
Categorized risk of this well / site being in a karst geology	Medium



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**A 100-year floodplain**

0.35 miles

**Did the release impact areas not on an exploration, development, production, or storage site?**

No

There are no water wells listed in the New Mexico Office of the State Engineer (NMOSE) database located within approximately 0.5 miles (800 meters) of the Site. The nearest well with recent groundwater data is located approximately 0.63 miles from the Site with a depth to water of 76 feet below ground surface (bgs). Based on recent conversations with NMOCD representatives concerning other incidents, this 0.63-mile distance is with the discretionary limit for use as groundwater depth determination. The site characterization data are presented in Appendix B.

## 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 RRAL
Chloride	10,000 mg/kg
TPH (GRO+DRO+ORO)	2,500 mg/kg
TPH (GRO+DRO)	1,000 mg/kg
BTEX	50 mg/kg

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

Constituent	Site RRAL
Chloride	600 mg/kg
TPH (GRO+DRO+MRO)	100 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

## WBE ASSESSMENT AND REMEDIAL ACTION

Based on available documentation, White Buffalo Environmental, Inc. (WBE) was contracted by Lact Services to assess the nMAP1822950996 release. Beginning on August 11, 2018, WBE conducted site assessment activities based on visual observations and information included on the Form C-141. A total of twenty-three (23) locations (SP1 through SP23) within the release extent were field tested/screened for chloride, TPH and benzene at multiple depths. A total of 23 soil samples were submitted to Cardinal Laboratory for analysis of chloride via Standard Method SM4500Cl-B, TPH via EPA Method 8015M, and BTEX via EPA Method 8021B. Analytical results for SP1 through SP23 are summarized in Table 1.

To enable access to the facility, WBE excavated the on-pad release footprint to 6 inches bgs to remove saturated soils. Approximately 40 cubic yards of impacted soil was removed and disposed of at Lea Land Disposal. The excavated area was backfilled with non-impacted, like material.

Additionally, WBE field tested/screened and collected a total forty-four (44) surface soil samples (SW1 through SW44) around the release extent in an attempt to laterally bound the impacted area. The soil samples were submitted to Cardinal Laboratory for analysis of chloride via Standard Method SM4500Cl-B,

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TPH via EPA Method 8015M, and BTEX via EPA Method 8021B. Analytical results for SW1 through SW44 are summarized in Table 2.

Of the sixty-seven (67) analyzed soil samples, analytical results associated with SP16, SW-24, SW-30 and SW43 were above the reclamation requirements for TPH. There was no other reclamation requirement or RRAL exceedances from the 2018 assessment activities. The approximate release extent and assessment sample locations are shown on Figure 3. The extent of remedial action performed by WBE is shown in Figure 4.

## WHITE BUFFALO ENVIRONMENTAL REMEDIATION WORK PLAN

Based on the results of the 2018 assessment activities and remedial action, WBE prepared a Remediation Work Plan Request to address the nMAP1822950996 release area. It is unclear when the Remediation Work Plan Request, dated October 25, 2018, was initially submitted to NMOCD by COG Operating, LLC (COG). There is no documentation available indicating the Remediation Work Plan Request was initially approved or rejected.

As previously mentioned, the WBE Remediation Work Plan Request was resubmitted to the NMOCD by Tetra Tech in March 2022 as part of the ACO submittals. The work plan was rejected on December 9, 2022 via email from Brittany Hall of the NMOCD with the following reasoning:

- *"The depth to groundwater has not been adequately determined. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided in the submission. The responsible party may choose to remediate to the most stringent levels listed in Table 1 of 19.15.29 NMAC in lieu of drilling to determine the depth to groundwater.*
- *Horizontal delineation submitted was incomplete and did not meet the requirements of 19.15.29.11 NMAC. The values for determination of horizontal impact are derived by either approved "background" values or Table I Closure Criteria for releases where groundwater is at a depth of 50 feet or less. This is especially important for "on-pad" releases to ensure the release did not extend to the "off-pad"/pasture area. A visual footprint on the surface is not sufficient to assess the horizontal extent of the release. Laboratory data must be provided as evidence of delineation efforts. Any sample exceeding approved "background" values or Table I Closure Criteria for releases where groundwater is at a depth of 50 feet or less requires additional samples for horizontal delineation.*
- *In the report it states "Pad Area - WBE excavated the top 6" bgs of saturated soil, loaded into dump truck and hauled to Lea Landfill. The pad area was backfilled with non-impacted like material imported to the site and that no further actions will be conducted on the pad with the sample results indicating the pad area is under the Site Closure Criteria." The field screening results show TPH levels below the TPH closure standard at 1' bgs. There is no analytical data that shows TPH is below closure standards. The field results also do not show if GRO+DRO is under the 1,000 mg/kg closure standard.*
- *2RP-4923 closed. Refer to incident #nMAP1822950996 in all future communication.*
- *Please submit a complete report through the OCD Permitting website by 03/10/2023."*

A copy of the NMOCD email correspondence is included in the 2023 Work Plan.

## ADDITIONAL ASSESSMENT AND SAMPLING RESULTS

On behalf of ConocoPhillips, Tetra Tech conducted a visual Site inspection on September 21, 2022 to assess current Site conditions, document the observed impact, and photograph the area. Tetra Tech observed no obvious signs of staining and/or residual impact at the Site. Additionally, the pasture portions of the WBE-reported release footprint exhibited vegetation growth. Photographic documentation of current site conditions during the 2022 site visit is included in the 2023 Work Plan.

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## 2022 ASSESSMENT ACTIVITIES

Based on the findings of the visual inspection and the WBE analytical data, additional soil sampling was conducted in select locations to assess the current soil contaminant concentrations within the reported release footprint. On November 8, 2022, Tetra Tech installed eleven (11) hand auger borings (SP 2-22, SP 4-22, SP 7-22, SP 11-22, SP 13-22, SP 16-22, SP 17-22, SP 18-22, SP 21-22, SW 26-22 and SW 32-22) at locations previously sampled by WBE. A total of sixteen (16) soil samples were submitted to Cardinal Laboratories in Hobbs, New Mexico for analysis of chloride via Standard Method SM4500Cl-B, TPH via EPA Method 8015M, and BTEX via EPA Method 8021B.

Analytical results from the 2022 additional assessment sampling activities are summarized in Table 3. Analytical results associated with sample location SP 17-22 exceeded the TPH reclamation requirements for soils above 4 feet bgs outside of oil gas operations of 100 mg/kg. All other analytical results were below the reclamation requirements and Site RRALs for all constituents.

## 2023 ASSESSMENT ACTIVITIES

On behalf of ConocoPhillips, Tetra Tech conducted additional soil sampling at the Site to complete delineation at hand auger location SP-17-22. On September 11, 2023, Tetra Tech installed five (5) borings (SP-17-22 and AH-23-1 through AH-23-4) around the previously sampled SP-17-22 hand auger location. AH-23-1 through A-23-4 were installed to 1 feet bgs around SP-17-22 to complete horizontal delineation. SP-17-22 was installed from 1 to 6 feet bgs to complete vertical delineation.

A total of ten (10) soil samples were submitted to Cardinal Laboratories in Hobbs, New Mexico for analysis of chloride via Standard Method SM4500Cl-B, TPH via EPA Method 8015M, and BTEX via EPA Method 8021B.

Analytical results from the 2023 additional assessment activities are summarized in Table 4. Analytical results associated with sample location SP 17-22 exceeded reclamation requirements for TPH of 100 mg/kg from 2-3 feet. All other analytical results were below the reclamation requirements and Site RRALs for all constituents.

Results from the additional assessment activities from November 2022 and September 2023 indicate that the release footprint provided by WBE no longer appears to be accurate to field. This discrepancy, given the age of the release, may be due to the previous remedial activities conducted on-pad, rain, sheet flow, and/or natural attenuation of hydrocarbon which have modified the release footprint over time. Based on the results of the 2022 and 2023 analytical results, it appears that the soil contaminant concentrations are no longer above cleanup levels with the exception of the area near sample location SP17/SP17-22. The November 2022 and September 2023 hand auger locations, as well as the release extent observed by Tetra Tech, are presented in Figure 5.

## REVISED REMEDIATION WORK PLAN AND NMOCD APPROVAL

Tetra Tech, on behalf of ConocoPhillips, prepared a Revised Remediation Work Plan dated November 8, 2023. The Revised Remediation Work Plan described the results of the release assessment and provided characterization of the impact at the site. ConocoPhillips proposed to remove soils that exceeded the Site reclamation limits and RRALs as determined by the results of the assessment activities.

The Revised Work Plan was approved via email by Ashley Maxwell of the NMOCD on Monday, November 30, 2023, with the following comment:

- *"Remediation plan approved. Submit report via the OCD permitting portal by May 14, 2024."*

Regulatory correspondence is included in Appendix C.

## NMSLO ECO CORRESPONDENCE

The approved Revised Work Plan dated September 1, 2023, describing the Site assessment and proposed remedial activities was submitted via email to Tami Knight of the State Land Office Environmental

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Compliance Office (ECO) on November 30, 2023. The Revised Remediation Work Plan was approved by Tami Knight on December 15, 2023, with the following comments:

- *“Documentation of proposed remediation actions for the subject was received from your office on November 30, 2023. The NMSLO Environmental Compliance Office (ECO) has reviewed the plan, and based on the information provided in the document received from your office, ECO has approved the remediation plan. Please submit the remediation closure report to [eco@slo.state.nm.us](mailto:eco@slo.state.nm.us).”*

Regulatory correspondence is included in Appendix C.

## REMEDIAL ACTIVITIES AND CONFIRMATION SAMPLING

From February 27-29, 2024, Tetra Tech personnel were onsite to supervise the remedial activities proposed in the approved Revised Remediation Work Plan, including excavation, disposal, and confirmation sampling. Prior to confirmation sampling, on February 22, 2024, the NMOCD district office was notified via the OCD Portal in accordance with Subsection D of 19.15.29.12 NMAC. Documentation of associated regulatory correspondence is included in Appendix C.

Impacted soils were excavated as indicated in Figure 6. The areas within the release footprint were excavated to a maximum depth of 4 feet below surrounding grade. Due to safety concerns associated with working around pressurized lines, impacted soils were excavated by hand or hydro-excavation within 4 feet of subsurface lines. Heavy machinery remained outside this buffer zone to avoid any associated risk or disturbance. Photographs from the excavated areas prior to backfill are provided in Appendix D.

All excavated material was transported offsite for proper disposal. Approximately 64 cubic yards of material were transported to the R360 Permian Basin facility. Copies of the waste manifests are included in Appendix E.

Following excavation, confirmation floor and sidewall samples were collected and submitted for laboratory analysis to verify efficacy of remediation activities. Per the NMOCD approved confirmation sampling plan, confirmation samples were collected such that each discrete sample (sidewall and floor) was representative of no more than 200 square feet of excavated area. One (1) confirmation floor sample location and four (4) confirmation sidewall sample locations were collected for laboratory analysis during remedial activities. Confirmation sidewall sample locations were categorized with the cardinal direction (N, E, S, W) followed by SW-#. Confirmation floor sample locations were labeled with “FS”-#. Excavated areas, depths and confirmation sample locations are indicated in Figure 6.

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 limits and established Site RRALs to demonstrate compliance.

The results of the February 2024 confirmation sampling events are summarized in Table 5. All final confirmation soil samples (floor and sidewall) were below applicable cleanup levels for chloride, TPH, and BTEX. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix F.

## RECLAMATION ACTIVITIES

Based on 19.15.29.13 NMAC, all 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 applicable cleanup levels for chloride, TPH, and BTEX. Excavated areas, depths and

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confirmation sample locations are indicated in Figure 5. The results of the February 2024 confirmation sampling events are summarized in Table 5.

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 NMSLO Sandy Loam (SL) Sites Seed Mixture 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 6. 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. The NMSLO seed mixture details in corresponding pounds per live seed per acre are included in Appendix G. Reclamation activities have been implemented in consultation with the State Land Office in accordance with 19.2.100.67 NMAC for surface reclamations on State Oil and Gas Leases.

#### NMOCD REJECTION AND 2024 ADDITIONAL ASSESSMENT SAMPLING

A Closure Report dated April 2, 2024 was prepared by Tetra Tech on behalf of ConocoPhillips and submitted to the NMOCD for review. In an email dated April 16, 2024, Ms. Ashley Maxwell of the NMOCD asked for clarification on the 2022-2023 assessment activities:

*"Can you address why sample SW24 wasn't addressed during the Tetra Tech's resampling event? The initial sample collected by White Buffalo exceeds closure and reclamation criteria at 1,049 TPH @ 1 foot bgs."*

In response, Tetra Tech proposed to collect an additional soil sample from the 0-1 foot interval at the SW24 location for laboratory analysis. The Closure Report was subsequently rejected by NMOCD on April 19, 2024 with the following comments:

- *"Tetra Tech is conducting additional sampling."*

A copy of the regulatory correspondence is included in Appendix C.

On May 2, 2024, Tetra Tech personnel returned to the Site to install one (1) boring (SW 24-R) to 1 foot bgs at the previously sampled SW24 hand auger location. The sample location is indicated on Figure 5. One (1) soil sample was submitted to Cardinal Laboratories for analysis of chloride via Standard Method SM4500Cl-B, TPH via EPA Method 8015M, and BTEX via EPA Method 8021B.

Analytical results from the 2024 additional assessment are summarized in Table 7. Analytical results associated with the additional soil sample requested by the NMOCD were below the reclamation requirements and Site RRALs for all constituents. Toluene was detected at a concentration of 0.088 mg/kg. All other results were below the laboratory detection limits.

#### CONCLUSION

The Closure Report for the GJ West Coop South Tank Battery release was originally submitted to the NMOCD on April 5, 2024. Upon review, the NMOCD identified a data gap in the 2022-2023 resampling events (Appendix C). To address the NMOCD comment, Tetra Tech conducted additional soil sampling on behalf of ConocoPhillips at the 2018 SW24 sampling location in order to assess current soil concentrations

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at that location. The resampling event was conducted on May 2, 2024, and the analytical results were below the reclamation requirements and Site RRALs for all Table 1 constituents.

ConocoPhillips respectfully requests closure of the incident based on the confirmation sampling results and remedial activities performed, as well as the results of the 2024 additional assessment sampling requested by the NMOCD. The final C-141 forms are enclosed in Appendix A.

Sincerely,  
**Tetra Tech, Inc.**



Samantha Abbott, P.G.  
Project Manager



Christian M. Llull, P.G.  
Program Manager

cc:  
Mr. Ike Tavaréz, RMR – ConocoPhillips



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## LIST OF ATTACHMENTS

### Figures:

- Figure 1 – Overview Map
- Figure 2 – Topographic Map
- Figure 3 – Approximate Release Extent and Site Assessment (WBE)
- Figure 4 – Initial Response by WBE
- Figure 5 – Additional Site Assessment
- Figure 6 – Remediation Extent and Confirmation Sampling Locations

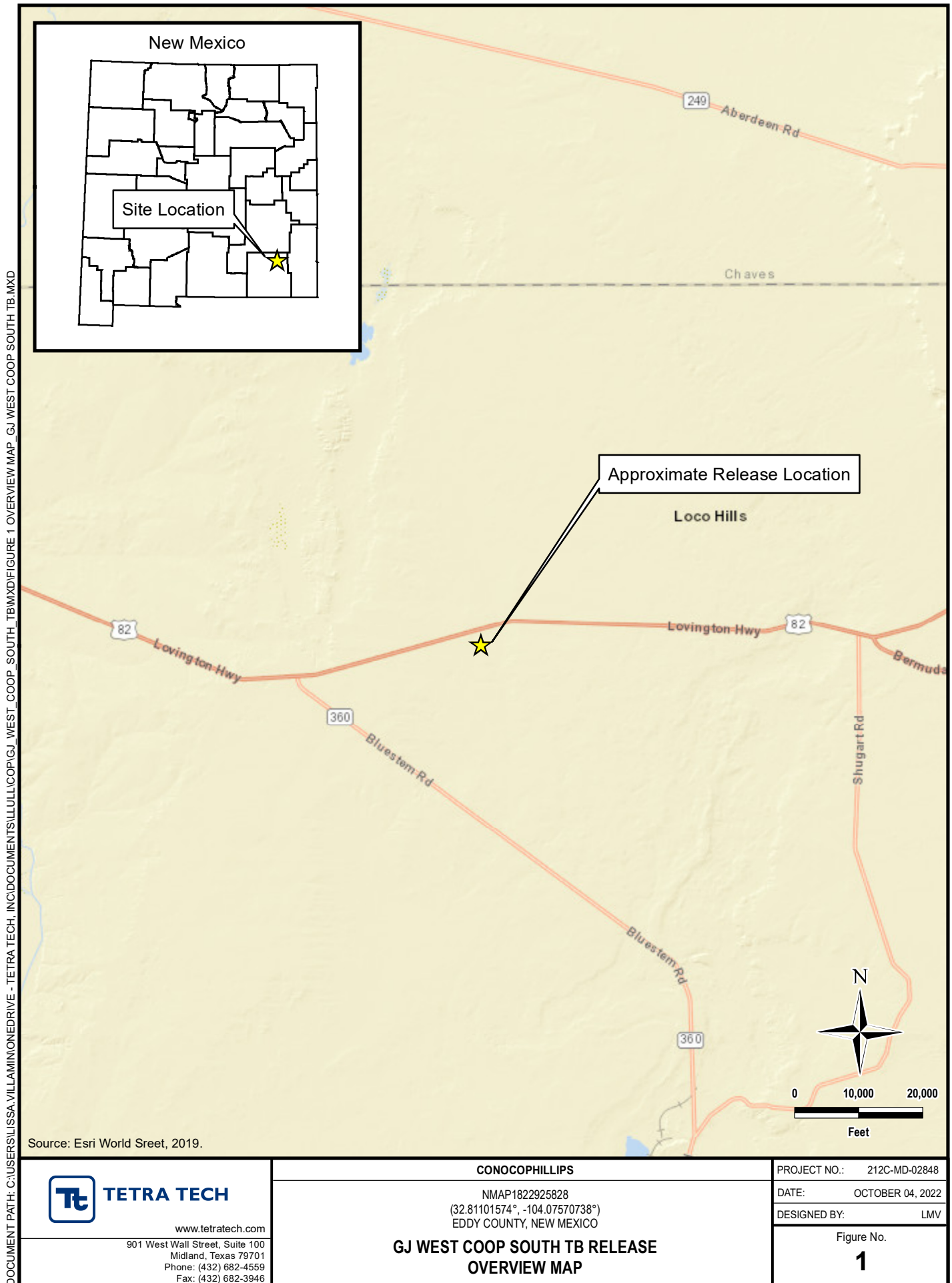
### Tables:

- Table 1 – Summary of Analytical Results – 2018 Sample Point Soil Assessment
- Table 2 – Summary of Analytical Results – 2018 Sidewall Soil Assessment
- Table 3 – Summary of Analytical Results – 2022 Additional Soil Assessment
- Table 4 – Summary of Analytical Results – 2023 Additional Soil Assessment
- Table 5 – Summary of Analytical Results – Soil Remediation
- Table 6 – Summary of Analytical Results – Soil Backfill
- Table 7 – Summary of Analytical Results – 2024 Additional Soil Assessment

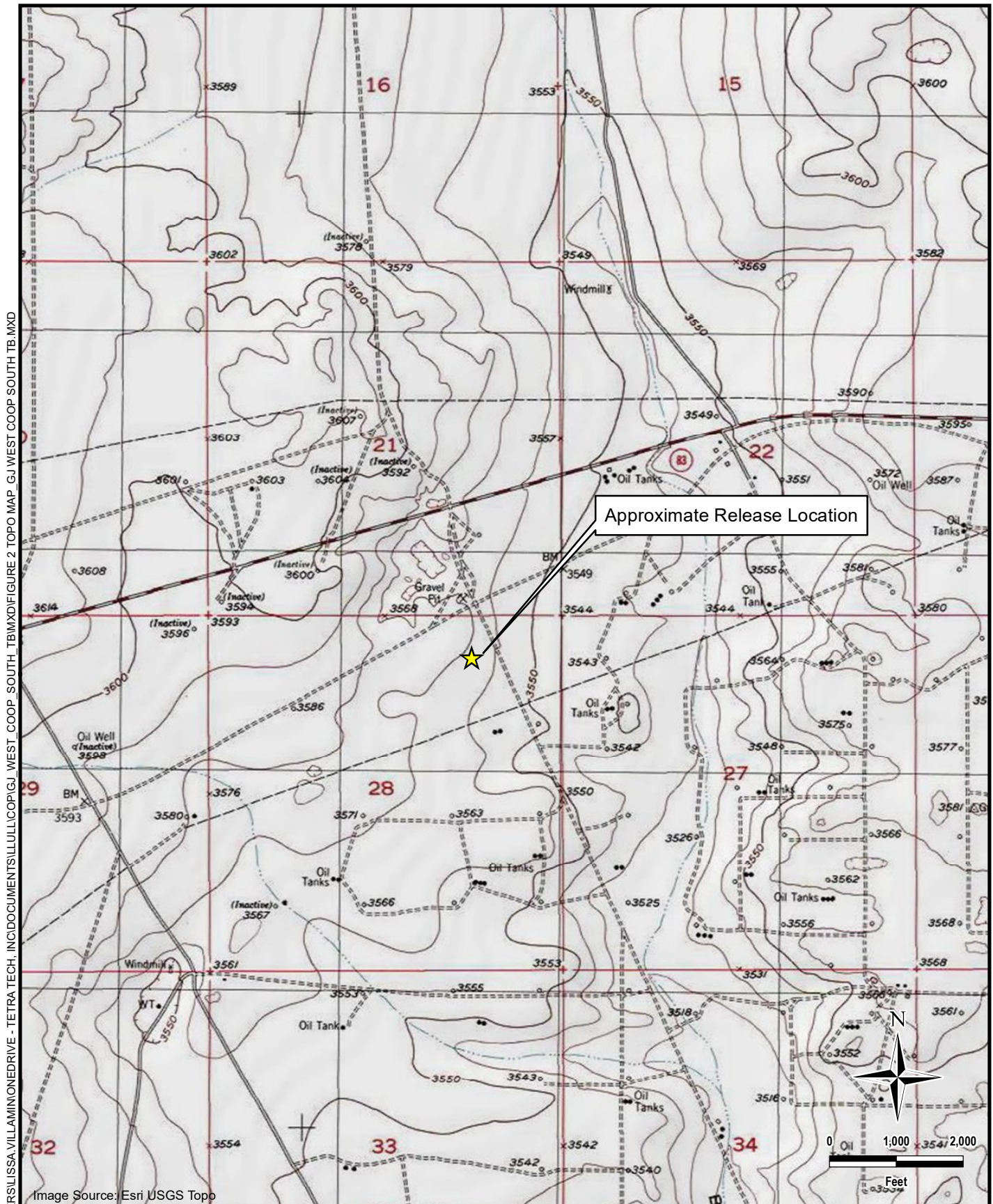
### Appendices:

- Appendix A – C-141 Forms
- Appendix B – Regulatory Correspondence
- Appendix C – Site Characterization Data
- Appendix D – Photographic Documentation
- Appendix E – Waste Manifests
- Appendix F – Laboratory Analytical Data
- Appendix G – NMSLO Seed Mix Details

## **FIGURES**







**TETRA TECH**

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CONOCOPHILLIPS

NMAP1822925828  
(32.81101574°, -104.07570738°)  
EDDY COUNTY, NEW MEXICO

**GJ WEST COOP SOUTH TB RELEASE  
TOPOGRAPHIC MAP**

PROJECT NO.: 212C-MD-02848

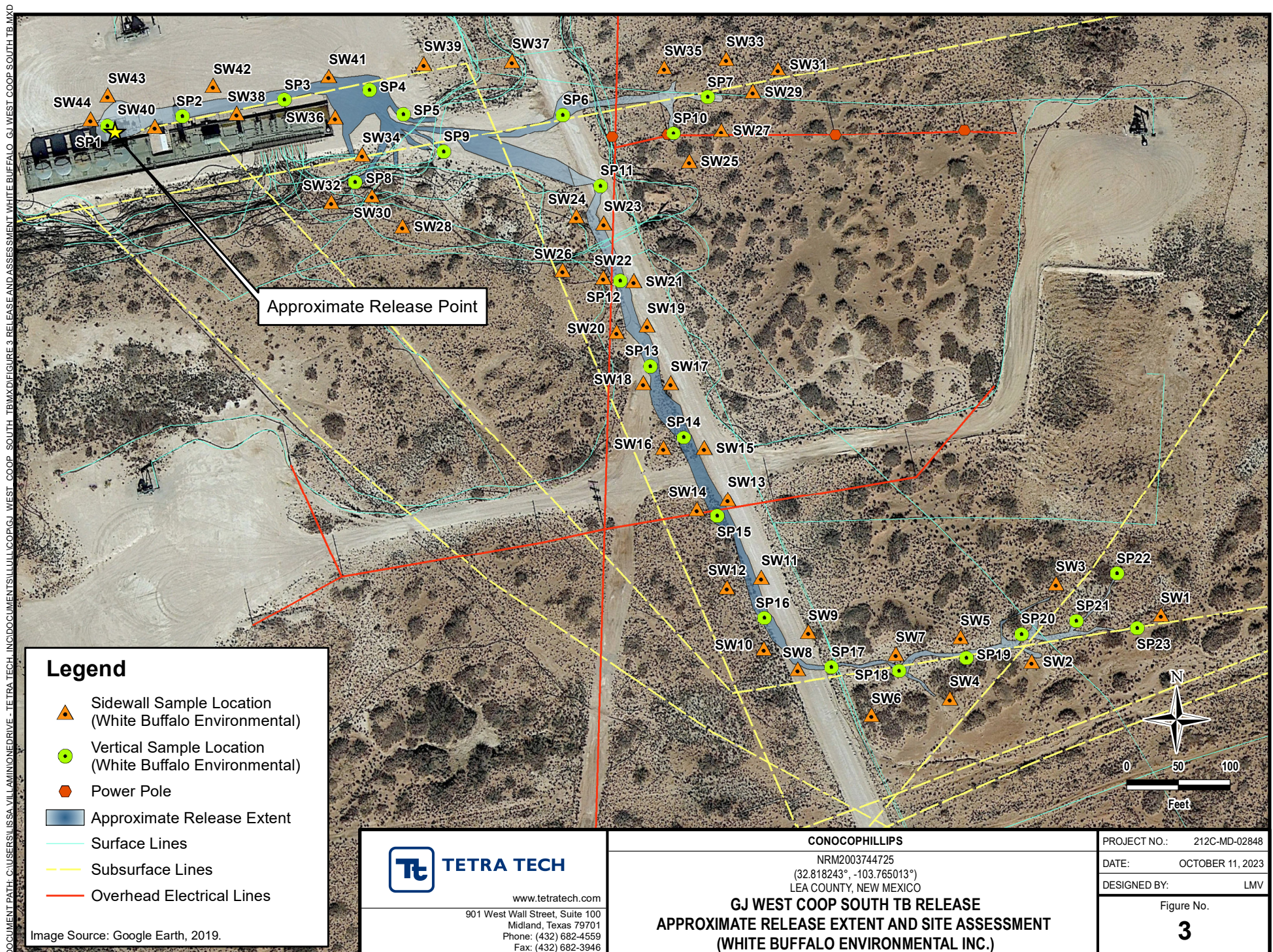
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DESIGNED BY: LMV

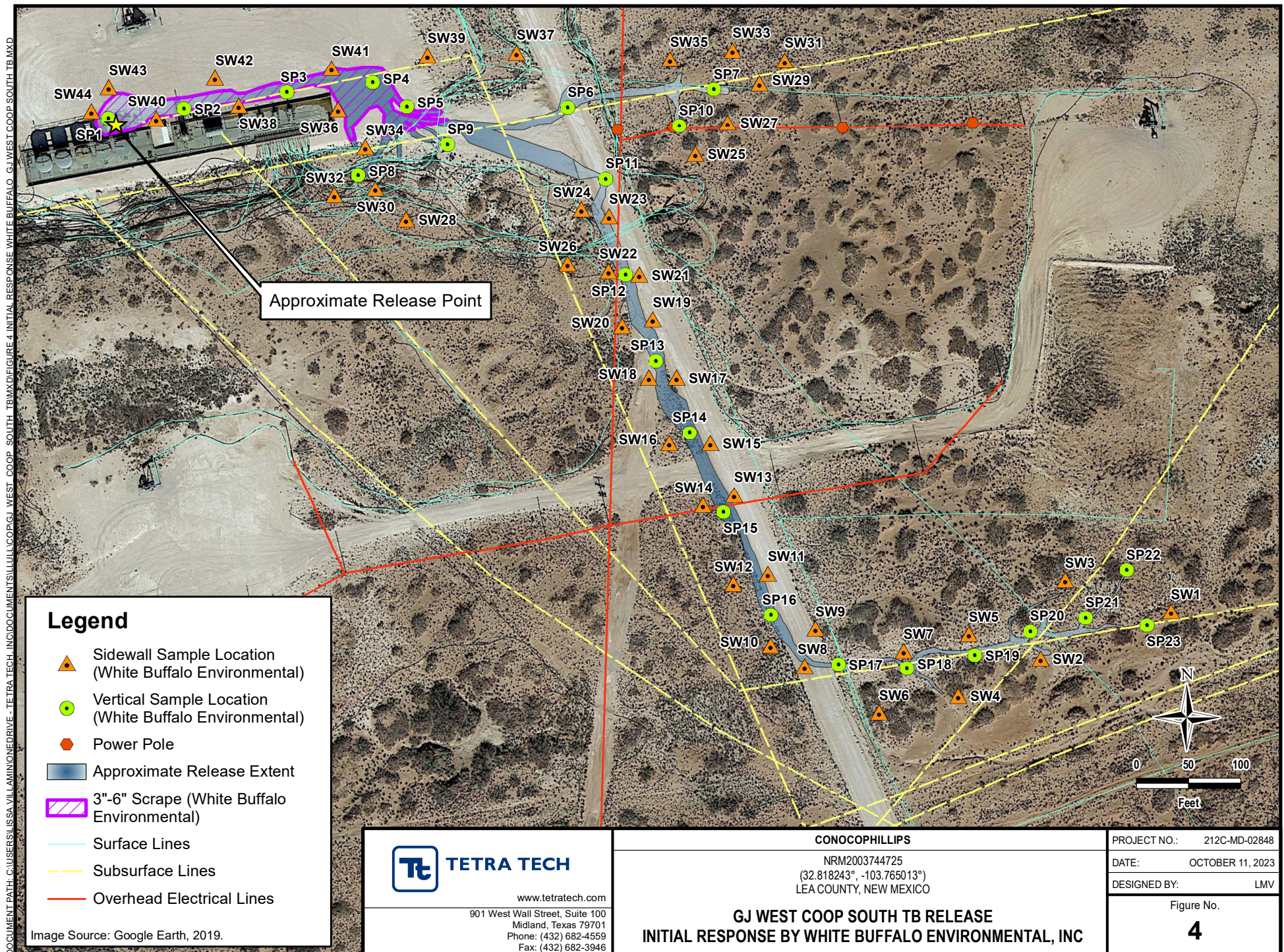
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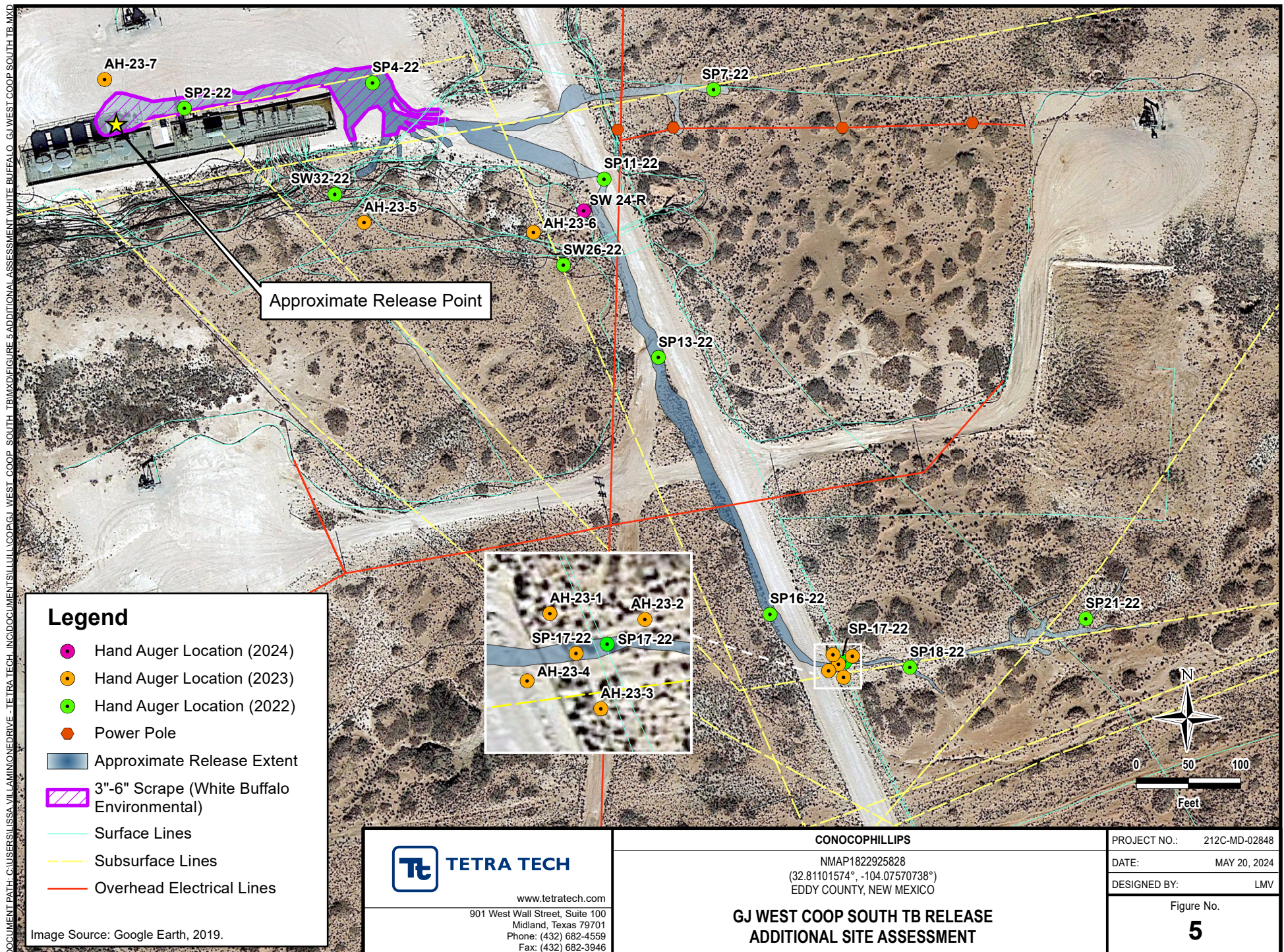




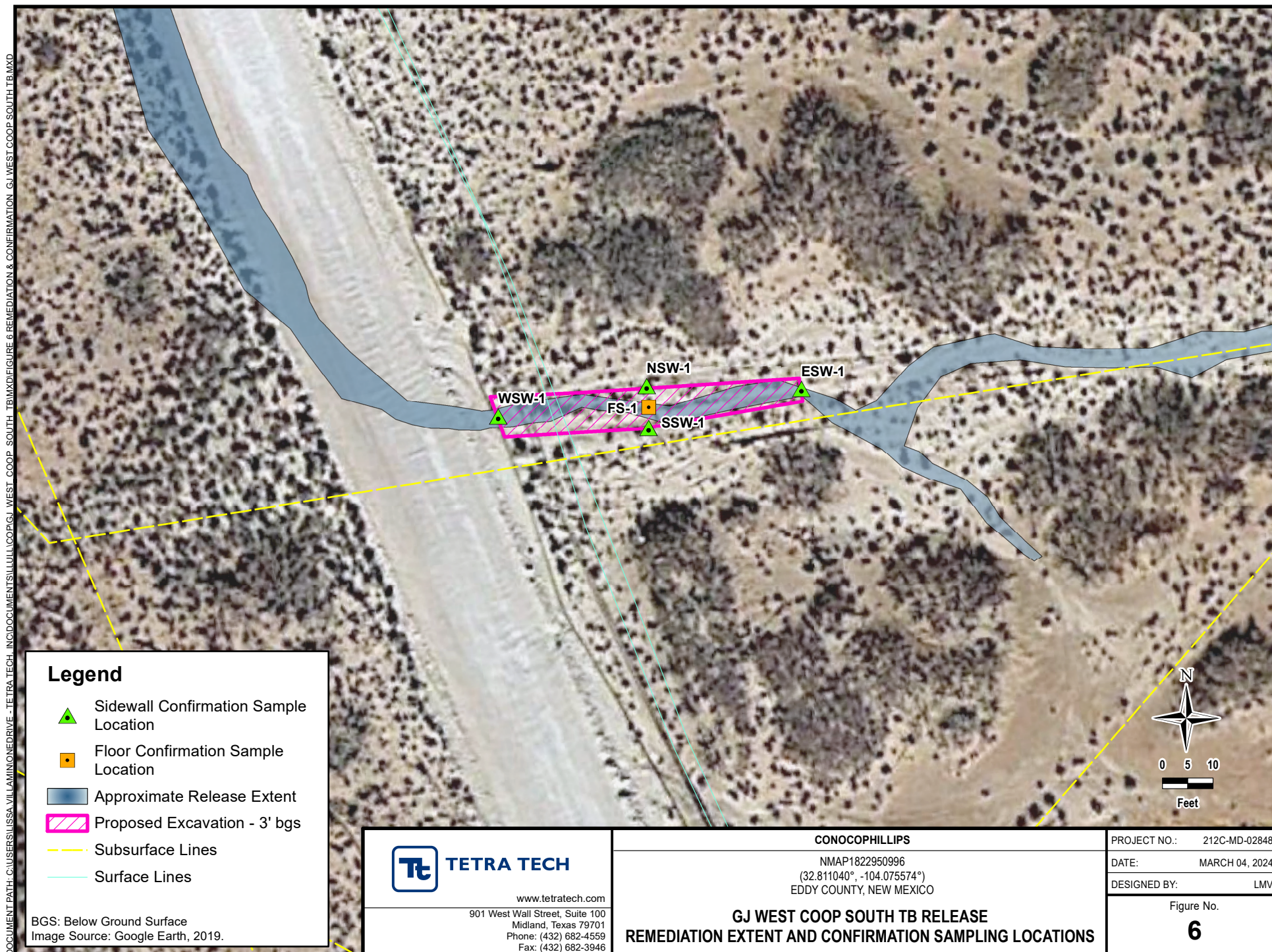












## **TABLES**

TABLE 1  
SUMMARY OF ANALYTICAL RESULTS  
2018 SAMPLE POINT SOIL ASSESSMENT- 2RP-4923 / nMAP1822925828  
CONOCOPHILLIPS  
GJ WEST COOP SOUTH TB RELEASE  
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth	Field Screening Results		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
			Chloride	PID	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)					
			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
SP1	8/23/2018	3	< 30	35	48.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SP2	8/23/2018	3	< 30	19	64.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SP3	8/23/2018	3	< 30	40	48.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SP4	8/23/2018	3	< 30	48	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SP5	8/23/2018	3	68	112	80.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SP6	8/23/2018	3	< 30	80	48.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SP7	8/23/2018	3	< 30	92	64.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SP8	8/23/2018	3	< 30	52	96.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		29.2		< 10.0		29.2
SP9	8/23/2018	2	< 30	12	80.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SP10	8/23/2018	2	< 30	51	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SP11	8/23/2018	4	278	12	640		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SP12	8/23/2018	6	278	12	656		< 0.050	QM-07	< 0.050	QM-07	< 0.050	QM-07	< 0.150	QM-07	< 0.300	QM-07	< 10.0		< 10.0		< 10.0		-
SP13	8/23/2018	2	147	18	128		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SP14	8/23/2018	2	87	15	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SP15	8/23/2018	2	157	19	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SP16	9/14/2018	10	304	298	304		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		191		29.3		220
SP17	8/23/2018	3	< 30	72	16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		58.1		11.7		69.8
SP18	8/23/2018	3	112	22	16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		18.7		< 10.0		18.7
SP19	8/23/2018	2	40	6	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SP20	8/23/2018	2	95	4	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SP21	9/7/2018	2	42	9	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SP22	8/23/2018	2	52	2	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SP23	9/7/2018	2	45	15	< 16.0		< 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

## QUALIFIERS:

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.



TABLE 2  
SUMMARY OF ANALYTICAL RESULTS  
2018 SIDEWALL SOIL ASSESSMENT- 2RP-4923 / nMAP1822925828  
CONOCOPHILLIPS  
GJ WEST COOP SOUTH TB RELEASE  
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth	Field Screening Results		Chloride <sup>1</sup>		BTX <sup>2</sup>										TPH <sup>3</sup>						
			Chloride	PID			Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTX		GRO C <sub>6</sub> - C <sub>10</sub>		DRO > C <sub>10</sub> - C <sub>28</sub>		EXT DRO > C <sub>28</sub> - C <sub>36</sub>		Total TPH (GRO+DRO+EXT DRO)
			ft. bgs	ppm	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg		
SW1	9/11/2018	1	20	8	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW2	9/11/2018	1	56	45	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW3	9/11/2018	1	28	21	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW4	9/11/2018	1	70	62	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		42.8		< 10.0		42.8
SW5	9/11/2018	1	80	0	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW6	9/11/2018	1	52	0	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW7	9/11/2018	1	70	0	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW8	9/11/2018	1	84	0	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW9	9/11/2018	1	42	0	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW10	9/11/2018	1	70	0	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW11	9/11/2018	1	46	9	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW12	9/11/2018	1	70	0	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW13	9/11/2018	1	74	0	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW14	9/11/2018	1	52	19	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW15	9/11/2018	1	60	0	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW16	9/11/2018	1	52	0	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW17	9/11/2018	1	54	4	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW18	9/11/2018	1	40	2	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW19	9/11/2018	1	68	12	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW20	9/11/2018	1	92	0	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW21	9/11/2018	1	58	0	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW22	9/11/2018	1	71	0	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW23	9/11/2018	1	58	0	16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		28.7		< 10.0		28.7
SW24	9/11/2018	1	70	0	224		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		869		180		1,049
SW25	9/11/2018	1	65	3	16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW26	9/14/2018	6	70	68	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW27	9/13/2018	1	50	5	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW28	9/14/2018	5	320	104	464		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW29	9/13/2018	1	< 30	4	16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW30	9/13/2018	1	68	605	112		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		515		77.9		593
SW31	9/14/2018	3	394	10	384		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW32	9/14/2018	8	46	4	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW33	9/13/2018	1	52	4	16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW34	9/13/2018	1	52	10	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW35	9/13/2018	1	62	0	16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW36	9/13/2018	1	70	2	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW37	9/14/2018	1	60	0	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW38	9/14/2018	1	45	0	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW39	9/14/2018	1	20	4	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW40	9/14/2018	1	68	31	64.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		21.8		< 10.0		21.8
SW41	9/14/2018	1	189	0	208		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW42	9/14/2018	1	169	7	192		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SW43	9/14/2018	1	62	301	48.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		261		30.9		292
SW44	9/14/2018	1	< 30	2	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 SM4500C1-B

2 Method 8021B

3 Method 8015M

## QUALIFIERS:

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

TABLE 3  
SUMMARY OF ANALYTICAL RESULTS  
2022 ADDITIONAL SOIL ASSESSMENT- nMAP1822925828/2RP-4923  
CONOCOPHILLIPS  
GJ WEST COOP SOUTH TB RELEASE  
EDDY 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)	
		ft. bgs	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>					
		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):	10,000 mg/kg		< 10 mg/kg		-		-		-		< 50 mg/kg		-		-		2,500 mg/kg			
SP 2 - 22	11/8/2022	0-1	128		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
SP 4 - 22	11/8/2022	1-2	96.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
SP 7 - 22	11/8/2022	0-1	64.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
SP 11 - 22	11/8/2022	0-1	64.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
		2-3	48.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
SP 13 - 22	11/8/2022	1-2	64.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
SP 16 - 22	11/8/2022	0-1	48.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
		2-3	48.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
		5-6	80.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
SP 17 - 22	11/8/2022	0-1	64.0	S-04	<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		771		177		948	
SP 18 - 22	11/8/2022	0-1	48.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
SP 21 - 22	11/8/2022	1-2	48.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
SW 26 - 22	11/8/2022	1-2	64.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
		4-5	64.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
SW 32 - 22	11/8/2022	0-1	48.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
		2-3	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

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

Shaded rows indicate intervals proposed for excavation.

## QUALIFIERS:

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.



TABLE 4  
SUMMARY OF ANALYTICAL RESULTS  
2023 ADDITIONAL SOIL ASSESSMENT- nMAP1822925828/2RP-4923  
CONOCOPHILLIPS  
GJ WEST COOP SOUTH TB RELEASE  
EDDY 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	
		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	(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):		10,000 mg/kg		< 10 mg/kg		-		-		-		< 50 mg/kg		-		-		-		2,500 mg/kg
SP-17-22	9/13/2023	1-2	16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
		2-3	16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		108		30.4		138.4	
		5-6	16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
AH-23-1	9/13/2023	0-1	16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
AH-23-2	9/13/2023	0-1	16.0		<0.050	QM-07	<0.050	QM-07	<0.050	QM-07	<0.150		<0.300		<10.0		<10.0		<10.0		-	
AH-23-3	9/13/2023	0-1	<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
AH-23-4	9/13/2023	0-1	<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
AH-23-5	9/13/2023	0-1	<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
AH-23-6	9/13/2023	0-1	<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
AH-23-7	9/13/2023	0-1	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

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

Shaded rows indicate intervals proposed for excavation.

## QUALIFIERS:

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

TABLE 5  
SUMMARY OF ANALYTICAL RESULTS  
SOIL REMEDIATION - nMAP1822925828/2RP-4923  
CONOCOPHILLIPS  
GJ WEST COOP SOUTH TB RELEASE  
EDDY COUNTY, STATE

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
NSW-1	2/27/2024	-	32		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
ESW-1	2/27/2024	-	16		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
WSW-1	2/27/2024	-	32		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-	
SSW-1	2/27/2024	-	<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		12.2		10.6		22.8	
FS-1	2/27/2024	-	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

TABLE 6  
SUMMARY OF ANALYTICAL RESULTS  
SOIL BACKFILL  
CONOCOPHILLIPS  
CAVENESS PIT (32.7486806, -103.8670468)  
EDDY COUNTY, STATE

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 (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>					
		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	
BACKFILL - COMPOSITE	2/27/2024	<16.0		<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

TABLE 7  
SUMMARY OF ANALYTICAL RESULTS  
2024 ADDITIONAL SOIL ASSESSMENT - nMAP1822925828/2RP-4923  
CONOCOPHILLIPS  
GJ WEST COOP SOUTH TB RELEASE  
EDDY 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
															C <sub>6</sub> - C <sub>10</sub>		> C <sub>10</sub> - C <sub>28</sub>		> C <sub>28</sub> - C <sub>36</sub>		
					mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg
SW 24-R	5/2/2024	0-1	32		<0.050		0.088		<0.050		<0.150		0.088		<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  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised April 3, 2017  
Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

## Release Notification and Corrective Action

### OPERATOR

☒ Initial Report ☐ Final Report


Name of Company: COG Operating, LLC (229137)	Contact: Robert McNeill
Address: 600 West Illinois Avenue, Midland, TX 79701	Telephone No. 432-683-7443
Facility Name: G J West Coop Unit South	Facility Type: Tank Battery
Surface Owner: State	Mineral Owner: State
API No.	

### LOCATION OF RELEASE

Unit Letter B	Section 28	Township 17S	Range 29E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
------------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	----------------

Latitude 32.81101574 Longitude -104.07570738 NAD83

### NATURE OF RELEASE

Type of Release Oil	Volume of Release 34 bbl.	Volume Recovered 5 bbl.
Source of Release Open Valve	Date and Hour of Occurrence August 10, 2018 12:00am	Date and Hour of Discovery August 10, 2018 12:00am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher – NMOCD Maria Pruett – NMOCD Ryan Mann – SLO	
By Whom? Dakota Neel	Date and Hour August 10, 2018 5:05pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.*		
The release was caused by a 3 <sup>rd</sup> party leaving the proving valves open. The valves were closed.		
Describe Area Affected and Cleanup Action Taken.*		
The release was in the pasture. A vacuum truck was dispatched to remove all freestanding fluids. Concho will have the spill area sampled to 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.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.		
Signature: 	OIL CONSERVATION DIVISION	
Printed Name: DeAnn Grant		
Title: HSE Administrative Assistant	Approval Date:	Expiration Date:
E-mail Address: agrant@concho.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: August 13, 2018 Phone: (432) 253-4513		

\* Attach Additional Sheets If Necessary



Incident ID	
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

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

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

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

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

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

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	
District RP	
Facility ID	
Application ID	

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

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

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

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

**OCD Only**

Received by: Shelly Wells \_\_\_\_\_ Date: 11/9/2023 \_\_\_\_\_

Incident ID	
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: \_\_\_\_\_ Title: \_\_\_\_\_

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

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

**OCD Only**Received by: Shelly Wells Date: 11/9/2023☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

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

Incident ID	
District RP	
Facility ID	
Application ID	

## Closure


The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

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

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

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

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

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

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

**OCD Only**

Received by: \_\_\_\_\_ 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**

### **Site Characterization Data**



# 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="#">RA 11807 POD1</a>	RA	ED		1	2	3	22	17S	29E	587360	3631585	1045	131	76	55

Average Depth to Water: **76 feet**

Minimum Depth: **76 feet**

Maximum Depth: **76 feet**

Record Count: 1

### UTMNAD83 Radius Search (in meters):

**Easting (X):** 586743

**Northing (Y):** 3630740.96

**Radius:** 1200

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.

10/3/22 11:18 AM

Page 1 of 1

WATER COLUMN/ AVERAGE  
DEPTH TO WATER



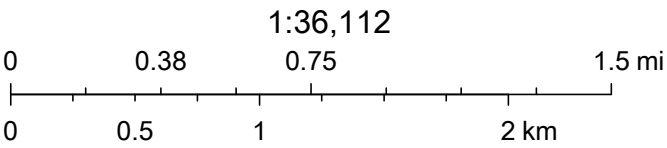
# OCD Karst Potential Map



9/23/2022, 3:46:12 PM

Karst Occurrence Potential

- High
- Medium
- Low



BLM, OCD, New Mexico Tech, Bureau of Land Management, Esri, HERE, Garmin, GeoTechnologies, Inc., NGA, USGS



# OCD Mineral & Surface Ownership



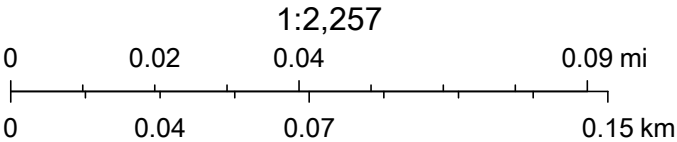
9/26/2023, 10:06:04 AM

Mineral Ownership

N-No minerals are owned by the U.S.

Land Ownership

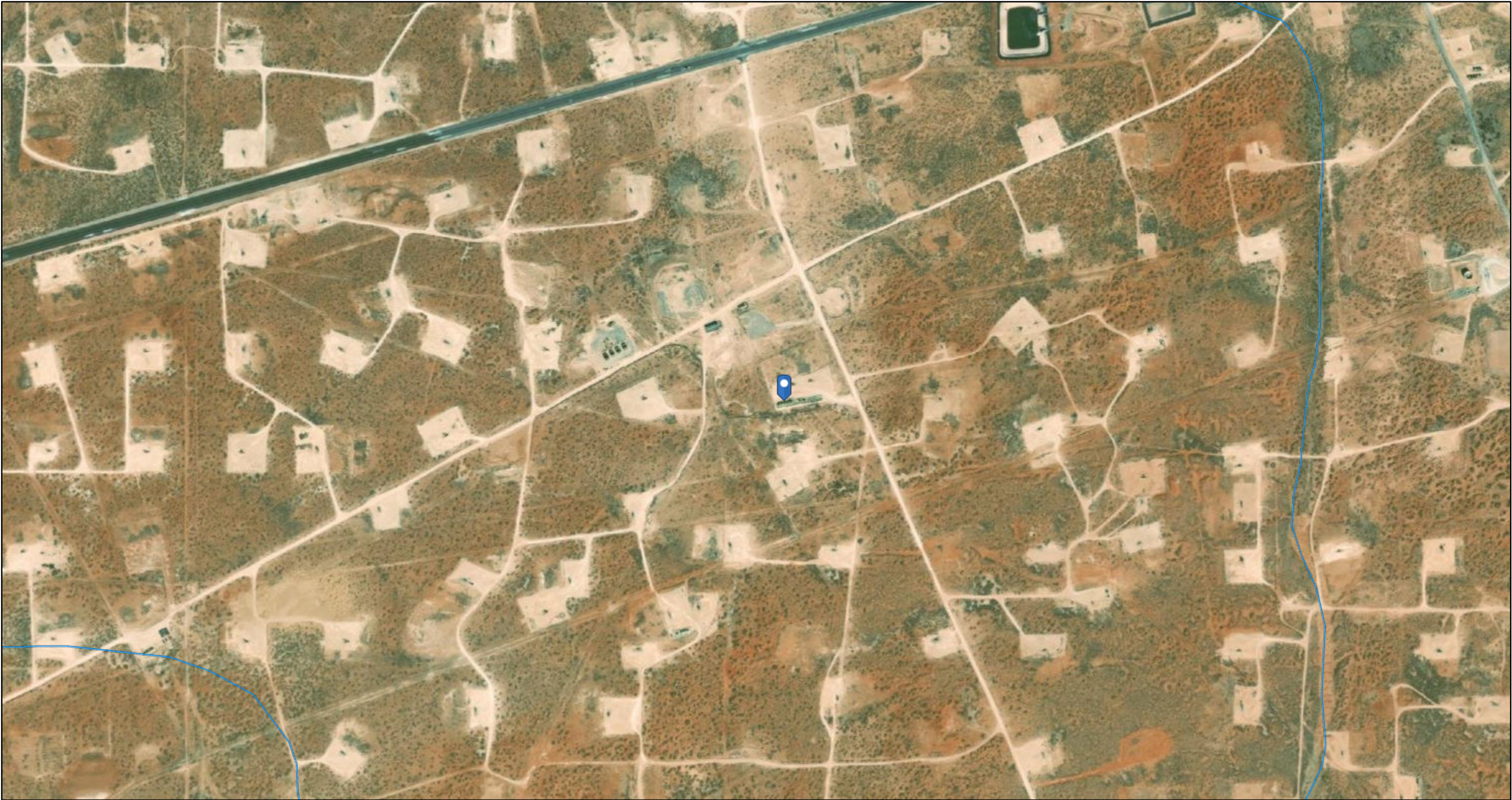
S



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

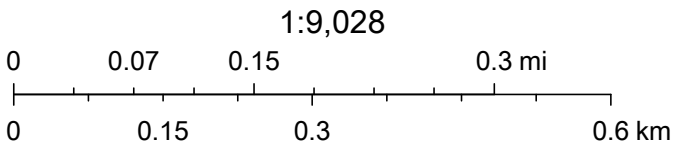


# OCD Waterbodies Map



9/23/2022, 3:49:17 PM

— OSE Streams



Esri, HERE, Garmin, GeoTechnologies, Inc., Maxar, NM  
OSE



## **APPENDIX C**

### **Regulatory Correspondence**



**From:** [OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us)  
**To:** [Lull, Christian](#)  
**Subject:** The Oil Conservation Division (OCD) has approved the application, Application ID: 284157  
**Date:** Thursday, November 30, 2023 9:56:21 AM

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

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

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nMAP1822950996, with the following conditions:

- **Remediation plan approved. Submit report via the OCD permitting portal by May 14, 2024.**

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you,  
Ashley Maxwell  
Projects Environmental Specialist - A  
505-635-5000  
[Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)

**New Mexico Energy, Minerals and Natural Resources Department**  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**From:** [Knight, Tami C.](#)  
**To:** [Lull, Christian](#)  
**Cc:** [Chama, Sam](#); [Poole, Nicholas](#); [Barnes, Will](#); [Griffin, Becky R.](#); [David, Deon W.](#)  
**Subject:** Remediation Plan\_NMAP1822950996 \_GJ West Coop\_FINAL.pdf - Approved  
**Date:** Friday, December 15, 2023 9:25:51 AM  
**Attachments:** [image001.jpg](#)  
[image002.jpg](#)  
[image003.jpg](#)  
[image004.jpg](#)

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

Documentation of proposed remediation actions for the subject was received from your office on November 30, 2023. The NMSLO Environmental Compliance Office (ECO) has reviewed the plan, and based on the information provided in the document received from your office, ECO has approved the remediation plan. Please submit the remediation closure report to [eco@slo.state.nm.us](mailto:eco@slo.state.nm.us).

#### Environmental Compliance Office

Surface Resources Division

[eco@slo.state.nm.us](mailto:eco@slo.state.nm.us)

[nmstatelands.org](http://nmstatelands.org)

.....

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**From:** [OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us)  
**To:** [Lull, Christian](#)  
**Subject:** The Oil Conservation Division (OCD) has accepted the application, Application ID: 316619  
**Date:** Thursday, February 22, 2024 11:26:25 AM

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

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

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nMAP1822950996.

The sampling event is expected to take place:

**When:** 02/27/2024 @ 10:00

**Where:** B-28-17S-29E 0 FNL 0 FEL (32.811015,-104.075707)

**Additional Information:** GJ West Coop South TB Release  
ConocoPhillips - Heritage COG Operating LLC  
Section 34, Township 17 South, Range 27 East  
Eddy County, New Mexico  
INCIDENT ID nMAP1822950996  
DOR: 8/10/2018  
Landowner: NMSLO  
Release Location: 32.81101574, -104.07570738

**Additional Instructions:** GJ West Coop South TB Release  
ConocoPhillips - Heritage COG Operating LLC  
Section 34, Township 17 South, Range 27 East  
Eddy County, New Mexico  
INCIDENT ID nMAP1822950996  
DOR: 8/10/2018  
Landowner: NMSLO  
Release Location: 32.81101574, -104.07570738

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



**From:** [Maxwell, Ashley, EMNRD](#)  
**To:** [Lull, Christian](#); [Abbott, Sam](#)  
**Subject:** NMAP1822950996 G J WEST COOP UNIT SOUTH Reclamation  
**Date:** Tuesday, April 16, 2024 10:39:10 AM  
**Attachments:** [APP\\_330603\\_991670.pdf](#)

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

Good Morning,

Can you address why sample SW24 wasn't addressed during the Tetra Tech's resampling event? The initial sample collected by White Buffalo exceeds closure and reclamation criteria at 1,049 TPH @ 1 foot bgs.

**Ashley Maxwell** • Environmental Specialist  
Environmental Bureau Projects Group  
EMNRD - Oil Conservation Division  
1000 Rio Brazos Road | Aztec, NM 87110  
505.635.5000 | [Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>

Please be advised that the new Digital C-141 is live as of December 1, 2023. Please review the new Digital C-141 submission Dec 1, 2023 Guidance document posted on the EMNRD Website prior to submitting any C-141s. The guidance documents can be found at <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> or <https://www.emnrd.nm.gov/ocd/ocd-forms/>.

**From:** [Maxwell, Ashley, EMNRD](#)  
**To:** [Abbott, Sam](#); [Lull, Christian](#)  
**Subject:** RE: [EXTERNAL] RE: NMAP1822950996 G J WEST COOP UNIT SOUTH Reclamation  
**Date:** Friday, April 19, 2024 10:29:05 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[image005.png](#)

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

Not a problem. I'm going to move forward with rejecting the initial report so that this new sampling will be included.

Thanks!

Ashley

**Ashley Maxwell** • Environmental Specialist  
Environmental Bureau Projects Group  
EMNRD - Oil Conservation Division  
1000 Rio Brazos Road | Aztec, NM 87110  
505.635.5000 | [Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>

Please be advised that the new Digital C-141 is live as of December 1, 2023. Please review the new Digital C-141 submission Dec 1, 2023 Guidance document posted on the EMNRD Website prior to submitting any C-141s. The guidance documents can be found at <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> or <https://www.emnrd.nm.gov/ocd/ocd-forms/>.

---

**From:** Abbott, Sam <Sam.Abbott@tetrattech.com>  
**Sent:** Friday, April 19, 2024 9:22 AM  
**To:** Maxwell, Ashley, EMNRD <Ashley.Maxwell@emnrd.nm.gov>; Lull, Christian <Christian.Lull@tetrattech.com>  
**Subject:** [EXTERNAL] RE: NMAP1822950996 G J WEST COOP UNIT SOUTH Reclamation

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

Hi Ashley,

It appears that this may have been an unintentional oversight at the time of the additional assessment.

With OCD approval, Tetra Tech and ConocoPhillips propose to collect an additional soil sample from the 0-1' interval at the SW24 location to be analyzed for Table I constituents and characterize the current soil concentrations.

Thank you,  
Sam

**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)

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



**TETRA TECH**

---

**From:** Maxwell, Ashley, EMNRD <[Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)>

**Sent:** Tuesday, April 16, 2024 10:38 AM

**To:** Llull, Christian <[Christian.Llull@tetrattech.com](mailto:Christian.Llull@tetrattech.com)>; Abbott, Sam <[Sam.Abbott@tetrattech.com](mailto:Sam.Abbott@tetrattech.com)>

**Subject:** NMAP1822950996 G J WEST COOP UNIT SOUTH Reclamation



**Abbott, Sam**

---

**From:** Llull, Christian  
**Sent:** Friday, April 19, 2024 10:33 AM  
**To:** Tavarez, Ike  
**Cc:** Abbott, Sam  
**Subject:** FW: The Oil Conservation Division (OCD) has rejected the application, Application ID: 330603

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged



Rejected – requires additional sampling and report revisions.

**GJ West Coop South TB Release**  
**ConocoPhillips - Heritage COG Operating LLC**  
**Section 34, Township 17 South, Range 27 East**  
**Eddy County, New Mexico**  
**INCIDENT ID nMAP1822950996**  
**2RP-4923**  
**DOR: 8/10/2018**  
**Landowner: NMSLO**  
**Release Location: 32.81101574, -104.07570738**

Christian

---

**From:** OCDOnline@state.nm.us <OCDOnline@state.nm.us>  
**Sent:** Friday, April 19, 2024 10:30 AM  
**To:** Llull, Christian <christian.llull@tetrattech.com>  
**Subject:** The Oil Conservation Division (OCD) has rejected the application, Application ID: 330603

 **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 rejected the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nMAP1822950996, for the following reasons:

- **Tetra Tech is conducting additional sampling.**

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 330603. Please review and make the required correction(s) prior to resubmitting.

If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

Thank you,  
Ashley Maxwell  
Projects Environmental Specialist - A

505-635-5000

[Ashley.Maxwell@emnrd.nm.gov](mailto:Ashley.Maxwell@emnrd.nm.gov)

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

1220 South St. Francis Drive

Santa Fe, NM 87505

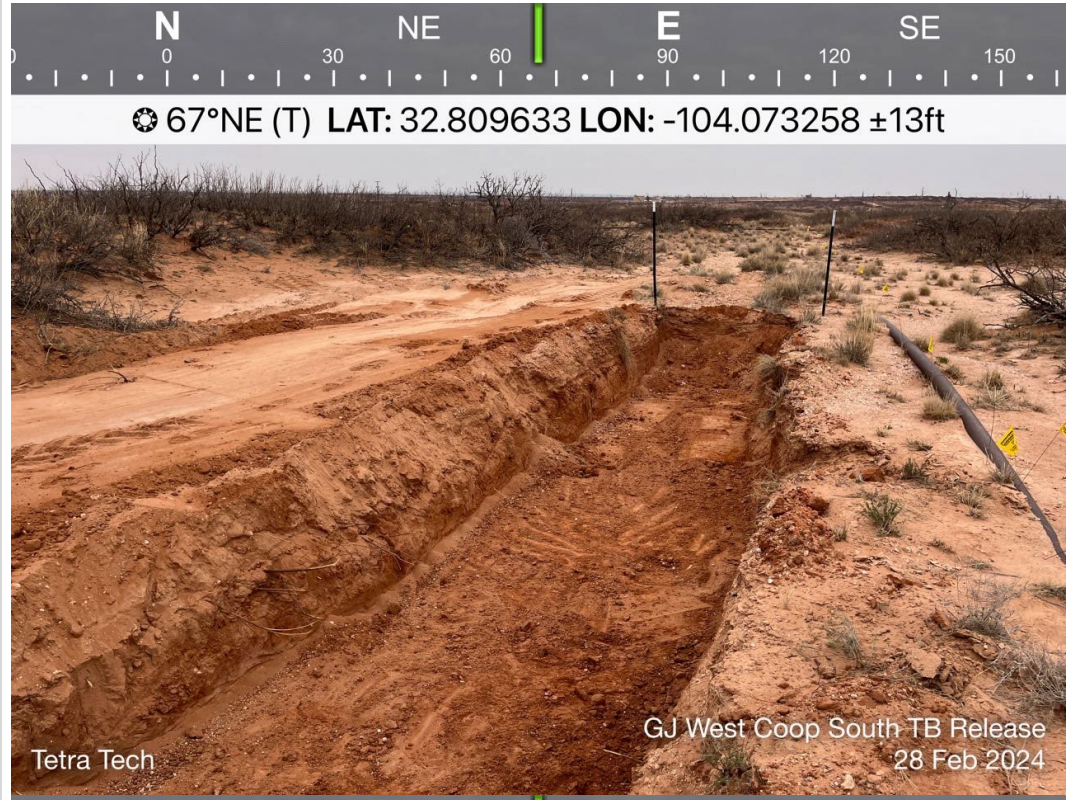


## **APPENDIX D**

# **Photographic Documentation**



TETRA TECH, INC. PROJECT NO. 212C-MD-02848	DESCRIPTION	View west-southwest of open excavation and surface steel lines.	1
	SITE NAME	GJ WEST COOP SOUTH TB Release	2/28/2024

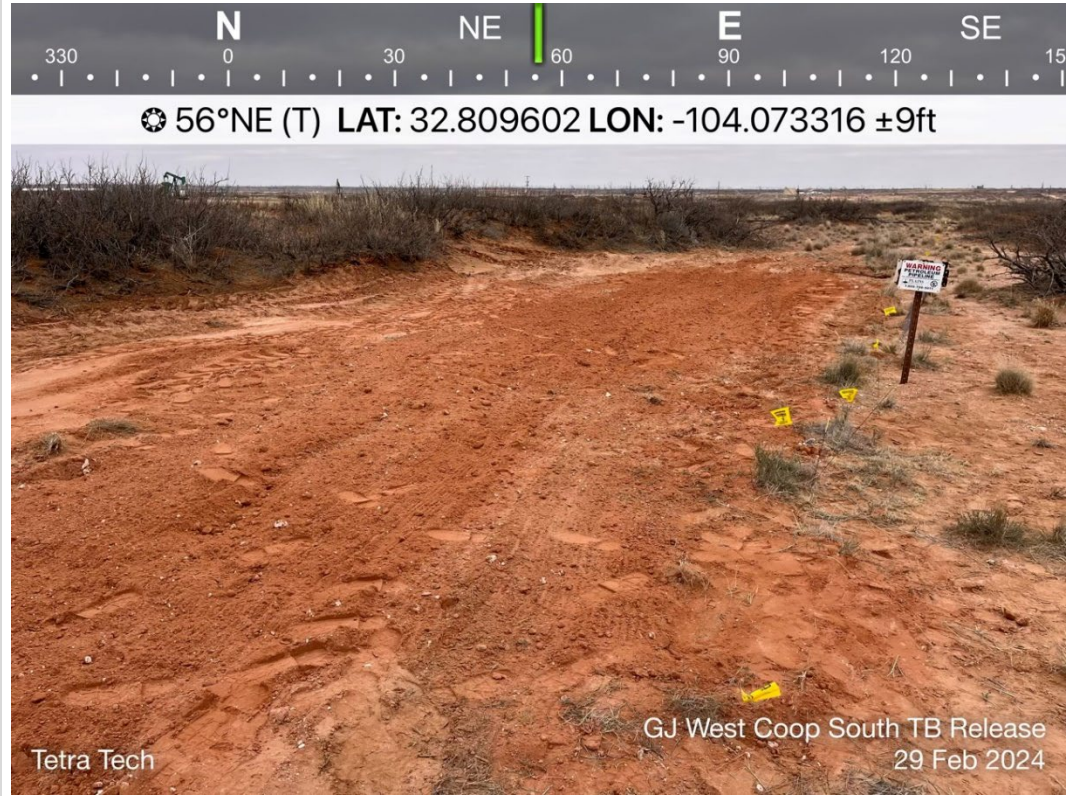


TETRA TECH, INC. PROJECT NO. 212C-MD-02848	DESCRIPTION	View east-northeast of open excavation and Plains pipeline.	2
	SITE NAME	GJ WEST COOP SOUTH TB Release	2/28/2024





TETRA TECH, INC. PROJECT NO. 212C-MD-02848	DESCRIPTION	View west-southwest of open excavation. Plains pipeline and surface steel lines.	3
	SITE NAME	GJ WEST COOP SOUTH TB Release	2/28/2024

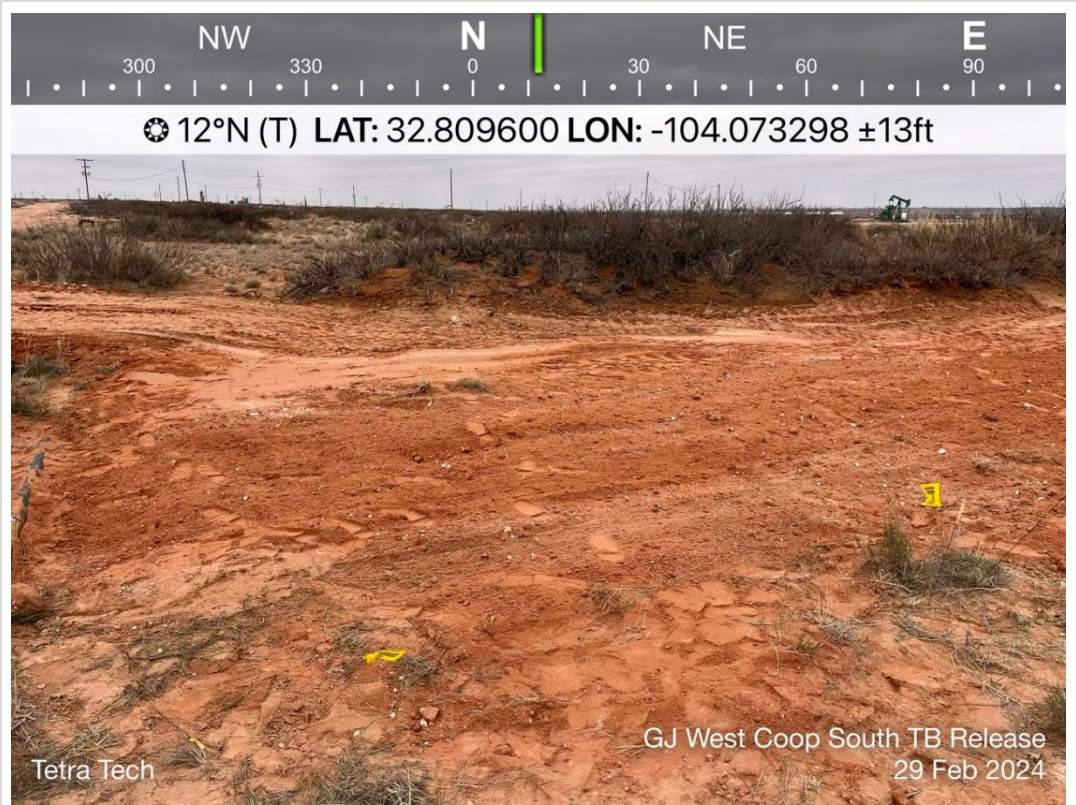


TETRA TECH, INC. PROJECT NO. 212C-MD-02848	DESCRIPTION	View east-northeast of backfilled and seeded excavation.	4
	SITE NAME	GJ WEST COOP SOUTH TB Release	2/29/2024





TETRA TECH, INC. PROJECT NO. 212C-MD-02848	DESCRIPTION	View southwest of backfilled and seeded excavation.	5
	SITE NAME	GJ WEST COOP SOUTH TB Release	2/29/2024



TETRA TECH, INC. PROJECT NO. 212C-MD-02848	DESCRIPTION	View north-northeast of backfilled and seeded excavation.	6
	SITE NAME	GJ WEST COOP SOUTH TB Release	2/29/2024

## **APPENDIX E**

### **Waste Manifests**





Permian Basin

Customer: CONOCOPHILLIPS  
 Customer #: CRI2190  
 Ordered by: IKE TAVAREZ  
 AFE #:  
 PO #:  
 Manifest #: 01  
 Manif. Date: 2/27/2024  
 Hauler: MCNABB PARTNERS  
 Driver: VICTOR  
 Truck #: M37  
 Card #  
 Job Ref #

Ticket #: 700-1534844  
 Bid #: O6UJ9A000JEC  
 Date: 2/27/2024  
 Generator: CONOCOPHILLIPS  
 Generator #: 40946  
 Well Ser. #: 999908  
 Well Name: G J WEST COOP UNIT  
 Well #: TANK BATTERY  
 Field:  
 Field #:  
 Rig: NON-DRILLING  
 County

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	16.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ 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 in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



Customer: CONOCOPHILLIPS  
 Customer #: CRI2190  
 Ordered by: IKE TAVAREZ  
 AFE #:  
 PO #:  
 Manifest #: 02  
 Manif. Date: 2/27/2024  
 Hauler: MCNABB PARTNERS  
 Driver: VICTOR  
 Truck #: M37  
 Card #  
 Job Ref #

Ticket #: 700-1534932  
 Bid #: O6UJ9A000JEC  
 Date: 2/27/2024  
 Generator: CONOCOPHILLIPS  
 Generator #: 40946  
 Well Ser. #: 999908  
 Well Name: G J WEST COOP UNIT  
 Well #: TANK BATTERY  
 Field:  
 Field #:  
 Rig: NON-DRILLING  
 County

Permian Basin

Facility: CRI

## Product / Service

## Quantity Units

Contaminated Soil (RCRA Exempt)

16.00 yards

## Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ 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 in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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





Permian Basin

Customer: CONOCOPHILLIPS  
 Customer #: CRI2190  
 Ordered by: IKE TAVAREZ  
 AFE #:  
 PO #:  
 Manifest #: 03  
 Manif. Date: 2/27/2024  
 Hauler: MCNABB PARTNERS  
 Driver: ANDREW  
 Truck #: MP14  
 Card #  
 Job Ref #

Ticket #: 700-1534945  
 Bid #: O6UJ9A000JEC  
 Date: 2/27/2024  
 Generator: CONOCOPHILLIPS  
 Generator #: 40946  
 Well Ser. #: 999908  
 Well Name: G J WEST COOP UNIT  
 Well #: TANK BATTERY  
 Field:  
 Field #:  
 Rig: NON-DRILLING  
 County

Facility: CRI

## Product / Service

## Quantity Units

Contaminated Soil (RCRA Exempt)

8.00 yards

## Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

- ☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ 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 in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



Permian Basin

Customer: CONOCOPHILLIPS  
Customer #: CRI2190  
Ordered by: IKE TAVAREZ  
AFE #:  
PO #:  
Manifest #: 05  
Manif. Date: 2/28/2024  
Hauler: MCNABB PARTNERS  
Driver: ISALAH  
Truck #: M09  
Card #  
Job Ref #

Ticket #: 700-1535293  
Bid #: O6UJ9A000JEC  
Date: 2/28/2024  
Generator: CONOCOPHILLIPS  
Generator #: 40946  
Well Ser. #: 999908  
Well Name: GJ WEST COOP  
Well #: SOUTH TANK BATTERY RELF  
Field:  
Field #:  
Rig: NON-DRILLING  
County: EDDY (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	8.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ 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 in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



Permian Basin

Customer: CONOCOPHILLIPS  
 Customer #: CRI2190  
 Ordered by: IKE TAVAREZ  
 AFE #:  
 PO #:  
 Manifest #: 04  
 Manif. Date: 2/28/2024  
 Hauler: MCNABB PARTNERS  
 Driver: ISALAH  
 Truck #: M09  
 Card #  
 Job Ref #

Ticket #: 700-1535218  
 Bid #: O6UJ9A000JEC  
 Date: 2/28/2024  
 Generator: CONOCOPHILLIPS  
 Generator #: 40946  
 Well Ser. #: 999908  
 Well Name: GJ WEST COOP  
 Well #: SOUTH TANK BATTERY RELF  
 Field:  
 Field #:  
 Rig: NON-DRILLING  
 County

Facility: CRI

## Product / Service

## Quantity Units

Contaminated Soil (RCRA Exempt)

8.00 yards

## Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ 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 in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

## Driver/ Agent Signature

## R360 Representative Signature

## Customer Approval

THIS IS NOT AN INVOICE

Approved By: \_\_\_\_\_

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





Permian Basin

Customer: CONOCOPHILLIPS  
 Customer #: CRI2190  
 Ordered by: IKE TAVAREZ  
 AFE #:  
 PO #:  
 Manifest #: 06  
 Manif. Date: 2/28/2024  
 Hauler: MCNABB PARTNERS  
 Driver: ISIAAH  
 Truck #: M09  
 Card #  
 Job Ref #

Ticket #: 700-1535361  
 Bid #: O6UJ9A000JEC  
 Date: 2/28/2024  
 Generator: CONOCOPHILLIPS  
 Generator #: 40946  
 Well Ser. #: 999908  
 Well Name: GJ WEST COOP  
 Well #: SOUTH TANK BATTERY REL  
 Field:  
 Field #:  
 Rig: NON-DRILLING  
 County: EDDY (NM)

Facility: CRI

Product / Service

Quantity Units

Contaminated Soil (RCRA Exempt)

8.00 yards

**Generator Certification Statement of Waste Status**

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

- ☒ RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste  
☐ 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 in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):  
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description above)

Driver/ Agent Signature

R360 Representative Signature

Customer Approval

**THIS IS NOT AN INVOICE!**

Approved By: \_\_\_\_\_

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



## **APPENDIX F**

### **Analytical Laboratory Data**



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

February 28, 2024

CHRISTIAN LLULL

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: GJ WEST LOOP SOUTH TB RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 02/27/24 16:22.

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:	02/27/2024	Sampling Date:	02/27/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	GJ WEST LOOP SOUTH TB RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD 02848	Sample Received By:	Dionica Hinojos
Project Location:	COP - EDDY CO NM		

**Sample ID: NSW - 1 (H240963-01)**

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	02/27/2024	ND	2.12	106	2.00	4.53	
Toluene*	<0.050	0.050	02/27/2024	ND	2.09	105	2.00	4.91	
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.06	103	2.00	4.43	
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.01	100	6.00	4.68	
Total BTX	<0.300	0.300	02/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.6 % 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	02/28/2024	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	02/28/2024	ND	187	93.4	200	0.797	
DRO >C10-C28*	<10.0	10.0	02/28/2024	ND	174	86.8	200	0.839	
EXT DRO >C28-C36	<10.0	10.0	02/28/2024	ND					

Surrogate: 1-Chlorooctane 117 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/27/2024	Sampling Date:	02/27/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	GJ WEST LOOP SOUTH TB RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD 02848	Sample Received By:	Dionica Hinojos
Project Location:	COP - EDDY CO NM		

**Sample ID: ESW - 1 (H240963-02)**

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	02/27/2024	ND	2.12	106	2.00	4.53		
Toluene*	<0.050	0.050	02/27/2024	ND	2.09	105	2.00	4.91		
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.06	103	2.00	4.43		
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.01	100	6.00	4.68		
Total BTEX	<0.300	0.300	02/27/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	02/28/2024	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	02/28/2024	ND	187	93.4	200	0.797	
DRO >C10-C28*	<10.0	10.0	02/28/2024	ND	174	86.8	200	0.839	
EXT DRO >C28-C36	<10.0	10.0	02/28/2024	ND					

Surrogate: 1-Chlorooctane 123 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 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:	02/27/2024	Sampling Date:	02/27/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	GJ WEST LOOP SOUTH TB RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD 02848	Sample Received By:	Dionica Hinojos
Project Location:	COP - EDDY CO NM		

**Sample ID: WSW - 1 (H240963-03)**

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	02/27/2024	ND	2.12	106	2.00	4.53		
Toluene*	<0.050	0.050	02/27/2024	ND	2.09	105	2.00	4.91		
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.06	103	2.00	4.43		
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.01	100	6.00	4.68		
Total BTEX	<0.300	0.300	02/27/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.5 % 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	32.0	16.0	02/28/2024	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	02/28/2024	ND	187	93.4	200	0.797		
DRO >C10-C28*	<10.0	10.0	02/28/2024	ND	174	86.8	200	0.839		
EXT DRO >C28-C36	<10.0	10.0	02/28/2024	ND						

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.6 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/27/2024	Sampling Date:	02/27/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	GJ WEST LOOP SOUTH TB RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD 02848	Sample Received By:	Dionica Hinojos
Project Location:	COP - EDDY CO NM		

**Sample ID: SSW - 1 (H240963-04)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2024	ND	2.12	106	2.00	4.53	
Toluene*	<0.050	0.050	02/27/2024	ND	2.09	105	2.00	4.91	
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.06	103	2.00	4.43	
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.01	100	6.00	4.68	
Total BTX	<0.300	0.300	02/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.0 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/28/2024	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	02/28/2024	ND	196	97.9	200	2.72	
DRO >C10-C28*	12.2	10.0	02/28/2024	ND	192	95.8	200	2.52	
EXT DRO >C28-C36	10.6	10.0	02/28/2024	ND					

Surrogate: 1-Chlorooctane 124 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	02/27/2024	Sampling Date:	02/27/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	GJ WEST LOOP SOUTH TB RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD 02848	Sample Received By:	Dionica Hinojos
Project Location:	COP - EDDY CO NM		

**Sample ID: FS - 1 (H240963-05)**

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	02/27/2024	ND	2.12	106	2.00	4.53	
Toluene*	<0.050	0.050	02/27/2024	ND	2.09	105	2.00	4.91	
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.06	103	2.00	4.43	
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.01	100	6.00	4.68	
Total BTEX	<0.300	0.300	02/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.0 % 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	02/28/2024	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	02/28/2024	ND	196	97.9	200	2.72	
DRO >C10-C28*	<10.0	10.0	02/28/2024	ND	192	95.8	200	2.52	
EXT DRO >C28-C36	<10.0	10.0	02/28/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

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

Received:	02/27/2024	Sampling Date:	02/27/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	GJ WEST LOOP SOUTH TB RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD 02848	Sample Received By:	Dionica Hinojos
Project Location:	COP - EDDY CO NM		

**Sample ID: BACKFILL - COMPOSITE (H240963-06)**

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	02/27/2024	ND	2.12	106	2.00	4.53		
Toluene*	<0.050	0.050	02/27/2024	ND	2.09	105	2.00	4.91		
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.06	103	2.00	4.43		
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.01	100	6.00	4.68		
Total BTEX	<0.300	0.300	02/27/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.7 % 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	<16.0	16.0	02/28/2024	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	02/28/2024	ND	196	97.9	200	2.72	
DRO >C10-C28*	<10.0	10.0	02/28/2024	ND	192	95.8	200	2.52	
EXT DRO >C28-C36	<10.0	10.0	02/28/2024	ND					

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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

Celey D. Keene, Lab Director/Quality Manager



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

\*Source of backfill material: Caverns Pit - 32.7486806, -103.867046

<b>Company Name:</b> Conoco-Phillips						<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>															
<b>Project Manager:</b> Christian Luvu						<b>P.O. #:</b>																	
<b>Address:</b>								<b>Company:</b> Tetra Tech															
<b>City:</b>						<b>State:</b>		<b>Zip:</b>		<b>Attn:</b> Christian Luvu													
<b>Phone #:</b>						<b>Fax #:</b>		<b>Address:</b>															
<b>Project #:</b> 212C-MD-02848						<b>Project Owner:</b>		<b>City:</b>		<b>State:</b>		<b>Zip:</b>											
<b>Project Location:</b> Eddy Co, NM								<b>Phone #:</b>															
<b>Sampler Name:</b> Andres Garcia						<b>Fax #:</b>																	

FOR LAB USE ONLY																								
Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.		SAMPLING DATE	TIME	TPH	BTEX	Chlorides 4500									
			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL												OTHER :		
NSM-1	G	1	X								Feb 27	1000	X	X	X									
ESM-1												1030	X	X	X									
MSM-1												1100	X	X	X									
SSM-1												1130	X	X	X									
FS-1												1200	X	X	X									
Backfill-composite	C	1										1400	X	X	X									

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<b>Relinquished By:</b> Andres Garcia			<b>Date:</b> 27 Feb 24		<b>Received By:</b> [Signature]		<b>Verbal Result:</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Add'l Phone #:	
<b>Time:</b> 16:22							<b>All Results are emailed. Please provide Email address:</b>	
<b>Date:</b>					<b>Received By:</b>			
<b>Time:</b>								

<b>REMARKS:</b> Sam. Abbott & Tetra Tech Inc., LIS Behn. Chama Nicholas, Pool & Tetra Tech Inc., Samarra. Alencar				<b>Turnaround Time:</b> Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>				<b>Bacteria (only)</b> Sample Condition Cool Intact <input type="checkbox"/> Bacteria <input type="checkbox"/> Observed Temp. °C Corrected Temp. °C			
<b>Thermometer ID #113</b>				<b>Correction Factor -0.5°C</b>				<b>Corrected Temp. °C</b>			





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May 08, 2024

SAM ABBOTT

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: GJ WEST COOP SOUTH TB RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 05/02/24 9:34.

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

Received:	05/02/2024	Sampling Date:	05/02/2024
Reported:	05/08/2024	Sampling Type:	Soil
Project Name:	GJ WEST COOP SOUTH TB RELEASE	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-02848	Sample Received By:	Tamara Oldaker
Project Location:	COP - EDDY CO NM		

**Sample ID: SW 24-R ( 0-1' ) (H242358-01)**

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	05/04/2024	ND	2.22	111	2.00	14.8	
<b>Toluene*</b>	<b>0.088</b>	0.050	05/04/2024	ND	2.19	110	2.00	15.0	
Ethylbenzene*	<0.050	0.050	05/04/2024	ND	2.25	112	2.00	14.3	
Total Xylenes*	<0.150	0.150	05/04/2024	ND	6.71	112	6.00	13.8	
Total BTEX	<0.300	0.300	05/04/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	05/07/2024	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	05/03/2024	ND	198	98.9	200	1.40	
DRO >C10-C28*	<10.0	10.0	05/03/2024	ND	207	104	200	1.54	
EXT DRO >C28-C36	<10.0	10.0	05/03/2024	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

S-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

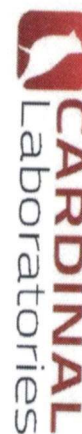
\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager





### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

## **APPENDIX G**

### **NMSLO Seed Mix Details**

# Custom Soil Resource Report Soil Map






## Custom Soil Resource Report

## MAP LEGEND

## Area of Interest (AOI)

 Area of Interest (AOI)


## Soils


 Soil Map Unit Polygons


 Soil Map Unit Lines


 Soil Map Unit Points

## Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water


 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot


 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

## Water Features

 Streams and Canals


## Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

## Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eddy Area, New Mexico  
Survey Area Data: Version 18, Sep 8, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 27, 2020—Feb 28, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Custom Soil Resource Report

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BD	Berino-Dune land complex, 0 to 3 percent slopes	1.6	100.0%
<b>Totals for Area of Interest</b>		<b>1.6</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

## Custom Soil Resource Report

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.



## Custom Soil Resource Report

**Eddy Area, New Mexico****BD—Berino-Dune land complex, 0 to 3 percent slopes****Map Unit Setting***National map unit symbol:* 1w44*Elevation:* 2,450 to 5,500 feet*Mean annual precipitation:* 8 to 15 inches*Mean annual air temperature:* 57 to 70 degrees F*Frost-free period:* 180 to 230 days*Farmland classification:* Not prime farmland**Map Unit Composition***Berino and similar soils:* 45 percent*Dune land:* 40 percent*Minor components:* 15 percent*Estimates are based on observations, descriptions, and transects of the mapunit.***Description of Berino****Setting***Landform:* Plains, fan piedmonts*Landform position (three-dimensional):* Riser*Down-slope shape:* Convex*Across-slope shape:* Linear*Parent material:* Mixed alluvium and/or eolian sands**Typical profile***H1 - 0 to 17 inches:* fine sandy loam*H2 - 17 to 50 inches:* sandy clay loam*H3 - 50 to 60 inches:* loamy sand**Properties and qualities***Slope:* 0 to 3 percent*Depth to restrictive feature:* More than 80 inches*Drainage class:* Well drained*Runoff class:* Low*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high  
(0.60 to 2.00 in/hr)*Depth to water table:* More than 80 inches*Frequency of flooding:* None*Frequency of ponding:* None*Calcium carbonate, maximum content:* 40 percent*Maximum salinity:* Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)*Sodium adsorption ratio, maximum:* 1.0*Available water supply, 0 to 60 inches:* Moderate (about 7.7 inches)**Interpretive groups***Land capability classification (irrigated):* 3e*Land capability classification (nonirrigated):* 7e*Hydrologic Soil Group:* B*Ecological site:* R070BC007NM - Loamy*Hydric soil rating:* No

## Custom Soil Resource Report

### Description of Dune Land

#### Setting

*Landform:* Dune fields

*Landform position (two-dimensional):* Shoulder, backslope, footslope

*Landform position (three-dimensional):* Talf

*Down-slope shape:* Convex, linear

*Across-slope shape:* Convex, linear

*Parent material:* Mixed alluvium and/or eolian sands

#### Typical profile

*H1 - 0 to 6 inches:* sandy loam

*H2 - 6 to 60 inches:* sandy loam

#### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 7e

*Hydric soil rating:* No

### Minor Components

#### Cacique

*Percent of map unit:* 5 percent

*Ecological site:* R070BD004NM - Sandy

*Hydric soil rating:* No

#### Kermit

*Percent of map unit:* 5 percent

*Ecological site:* R070BD005NM - Deep Sand

*Hydric soil rating:* No

#### Active dune land

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

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## Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2\\_054242](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242)

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**NMSLO Seed Mix****Sandy Loam (SL)****SANDY LOAM (SL) SITES SEED MIXTURE:**

COMMON NAME	VARIETY	APPLICATION RATE (PLS/Acre)	DRILL BOX
<b><u>Grasses:</u></b>			
Galleta grass	Viva, VNS, So.	2.5	F
Little bluestem	Cimmaron, Pastura	2.5	F
Blue grama	Hachita, Lovington	2.0	D
Sideoats grama	Vaughn, El Reno	2.0	F
Sand dropseed	VNS, Southern	1.0	S
<b><u>Forbs:</u></b>			
Indian blanketflower	VNS, Southern	1.0	D
Parry penstemon	VNS, Southern	1.0	D
Blue flax	Appar	1.0	D
Desert globemallow	VNS, Southern	1.0	D
<b><u>Shrubs:</u></b>			
Fourwing saltbush	VNS, Southern	2.0	D
Common winterfat	VNS, Southern	1.0	F
Apache plume	VNS, Southern	0.75	F
<b>Total PLS/acre</b>		<b>17.75</b>	

S = Small seed drill box, D = Standard seed drill box, F = Fluffy seed drill box

- VNS, Southern – No Variety Stated, seed should be from a southern latitude collection of this species.
- Double above seed rates for broadcast or hydroseeding.
- If Parry penstemon is not available, substitute firecracker penstemon.
- If desert globemallow is not available, substitute scarlet globemallow or Nelson globemallow.
- If a species is not available, provide a suggested substitute to the New Mexico Land Office for approval. Increasing all other species proportionately may be acceptable.



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Oil Conservation Division  
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QUESTIONS

Action 350285

QUESTIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:
	229137
	Action Number:
	350285
Action Type:	
[C-141] Reclamation Report C-141 (C-141-v-Reclamation)	

QUESTIONS

Prerequisites	
Incident ID (n#)	nMAP1822950996
Incident Name	NMAP1822950996 G J WEST COOP UNIT SOUTH @ 0
Incident Type	Oil Release
Incident Status	Reclamation Report Received
Incident Facility	[fMAP1822950566] G J West Coop Unit South

Location of Release Source	
Please answer all the questions in this group.	
Site Name	G J WEST COOP UNIT SOUTH
Date Release Discovered	08/10/2018
Surface Owner	State

Incident Details	
Please answer all the questions in this group.	
Incident Type	Oil 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	Cause: Human Error   Valve   Crude Oil   Released: 34 BBL   Recovered: 5 BBL   Lost: 29 BBL.
Produced Water Released (bbls) Details	Not answered.
Is the concentration of chloride in the produced water >10,000 mg/l	Not answered.
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.



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QUESTIONS, Page 2

Action 350285

**QUESTIONS (continued)**

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[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)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

**Initial Response**

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

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

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

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

I hereby agree and sign off to the above statement	Name: Christian LLuLL Title: Project Manager Email: christian.llull@tetrattech.com Date: 06/03/2024
--	--

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QUESTIONS, Page 3

Action 350285

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:
	229137
	Action Number:
	350285
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 75 and 100 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
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	Greater than 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	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1000 (ft.) and ½ (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	Medium
A 100-year floodplain	Between 1000 (ft.) and ½ (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
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.	
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)	656
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	1049
GRO+DRO	(EPA SW-846 Method 8015M)	869
BTEX	(EPA SW-846 Method 8021B or 8260B)	0.1
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	02/27/2024
On what date will (or did) the final sampling or liner inspection occur	02/27/2024
On what date will (or was) the remediation complete(d)	02/29/2024
What is the estimated surface area (in square feet) that will be reclaimed	425
What is the estimated volume (in cubic yards) that will be reclaimed	64
What is the estimated surface area (in square feet) that will be remediated	425
What is the estimated volume (in cubic yards) that will be remediated	64

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.

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QUESTIONS, Page 4  
  
Action 350285

QUESTIONS (continued)

Operator:  COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:	229137
	Action Number:	350285
	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	HALFWAY DISPOSAL AND LANDFILL [fEEM0112334510]
<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)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.
<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: Christian LLuLL Title: Project Manager Email: christian.llull@tetrattech.com Date: 06/03/2024
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 5  
  
Action 350285

QUESTIONS (continued)

Operator:  COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:  229137
	Action Number:  350285
	Action Type:  [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

<b>Deferral Requests Only</b>	
<i>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.</i>	
Requesting a deferral of the remediation closure due date with the approval of this submission	No



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Action 350285

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:
	229137
	Action Number:
	350285
Action Type:	
[C-141] Reclamation Report C-141 (C-141-v-Reclamation)	

**QUESTIONS**

Sampling Event Information	
Last sampling notification (C-141N) recorded	316619
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	02/27/2024
What was the (estimated) number of samples that were to be gathered	5
What was the sampling surface area in square feet	425

**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	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	425
What was the total volume (cubic yards) remediated	64
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	425
What was the total volume (in cubic yards) reclaimed	64
Summarize any additional remediation activities not included by answers (above)	N/A

*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 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: Christian LLuLL Title: Project Manager Email: christian.llull@tetratech.com Date: 06/03/2024
--	---

**District I**

1625 N. French Dr., Hobbs, NM 88240  
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**District II**

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**District III**

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**District IV**

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

QUESTIONS, Page 7

Action 350285

**QUESTIONS (continued)**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:	229137
	Action Number:	350285
	Action Type:	[C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS****Reclamation Report**

Only answer the questions in this group if all reclamation steps have been completed.

Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	425
What was the total volume of replacement material (in cubic yards) for this site	64

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.

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)	02/29/2024

Summarize any additional reclamation activities not included by answers (above)	N/A
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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 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: Christian LLuLL Title: Project Manager Email: christian.llull@tetrattech.com Date: 06/03/2024
--	--

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**Santa Fe, NM 87505**

QUESTIONS, Page 8  
  
Action 350285

QUESTIONS (continued)

Operator:  COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID:
	229137
	Action Number:
	350285
Action Type:	
[C-141] Reclamation Report C-141 (C-141-v-Reclamation)	

QUESTIONS

Revegetation Report	
Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.	
Requesting a restoration complete approval with this submission	No
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.	

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CONDITIONS  
  
Action 350285

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 350285
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	The reclamation report has been approved pursuant to 19.15.29.13 E. NMAC. The acceptance of this 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; or if the location fails to revegetate properly. In addition, OCD approval does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.	6/21/2024
amaxwell	All revegetation activities will need to be documented and included in the revegetation report. The revegetation report will need to include: An executive summary of the revegetation activities including: Seed mix, Method of seeding, dates of when the release area was reseeded, information pertinent to inspections, information about any amendments added to the soil, information on how the vegetative cover established meets the life-form ratio of plus or minus fifty percent of pre-disturbance levels and a total percent plant cover of at least seventy percent of pre-disturbance levels, excluding noxious weeds per 19.15.29.13 D.(3) NMAC, and any additional information; a scaled Site Map including area that was revegetated in square feet; and pictures of the revegetated areas during reseeded activities, inspections, and final pictures when revegetation is achieved.	6/21/2024