TETRA TECH

March 25, 2024

Brittany Hall
Projects Environmental Specialist
New Mexico Energy, Minerals, and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Release Characterization and Remediation Work Plan
ConocoPhillips (Heritage COG Operating LLC)
On behalf of Spur Energy Partners, LLC (328947)
Folk Federal #002 Release
Unit Letter H, Section 17, Township 17 South, Range 29 East
Eddy County, New Mexico
Incident ID NAB1630550256

Ms. Hall:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips Company (COP) to assess a historical COG Operating, LLC (COG) release that occurred at the Folk Federal #002 (API # 30-015-20198). The release footprint is located in Public Land Survey System (PLSS) Unit Letter H, Section 17, Township 17 South, Range 29 East, in Eddy County, New Mexico (Site). The approximate release point occurred at coordinates 32.8361122°, -104.090549°, as shown on Figures 1 and 2.

BACKGROUND

According to the State of New Mexico C-141 Initial Report, the release was discovered on October 14, 2016. The release was caused by a hole in the bottom of the oil tank, this resulted in a release of approximately 18 barrels (bbls) of oil, of which 16 bbls were recovered. Vacuum trucks were immediately dispatched to recover all standing fluid. This release occurred and remained within the bermed area of the facility. The contaminated gravel has been removed and replaced with fresh gravel. The NMOCD approved the initial C-141 on October 26, 2016, and subsequently assigned the release the Incident ID NAB1630550256. The initial C-141 form is included in Appendix A.

This incident is included in an Agreed Compliance Order-Releases (ACO-R) between COG Operating LLC (Concho) and the NMOCD signed on November 20 and 26, 2018, respectively.

LAND OWNERSHIP

According to the NMOCD Oil and Gas Map, the Site is located on land owned by the Bureau of Land Management (BLM). The BLM approved access to the Site for drilling a groundwater determination boring and additional activities on January 2, 2024. Regulatory correspondence is included in Appendix B.

SITE CHARACTERIZATION

A contemporaneous 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).

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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)	**>105 feet bgs**
Method used to determine the depth to ground water	Direct Measurement
Did this release impact groundwater or surface water?	No
What is the minimum distance between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Greater than 5 miles
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	1.03 miles
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 miles
A spring or private domestic fresh water well used by less than five households for domestic or stock watering purposes	1.86 miles
Any other fresh water well or spring	>5 miles
Incorporated municipal boundaries or a defined municipal fresh water well field	>5 miles
A wetland	1.03 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	High
A 100-year floodplain	1.02 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 1.86 miles from the Site with a depth to water of 76 feet below ground surface (bgs). The site characterization data are presented in Appendix C.

DTW DETERMINATION

As the available water level information is from a well farther than ½-mile away from the site and based on NMOCD guidance, ConocoPhillips elected to drill a boring to verify depth to groundwater. The proposed location of the depth to groundwater boring is located on Bureau of Land Management (BLM) lands. Tetra Tech contacted Shelly Tucker of the BLM via email to obtain approval of the location. An Application for Permit to Drill (WD-07) was submitted to the NMOSE on December 18, 2023. Approval was granted by the NMOSE on January 10, 2024 (RA-13407-POD1); a copy of the approved permit is included in Appendix B.

On February 5, 2024, ConocoPhillips contracted a licensed well drilling subcontractor to drill a groundwater determination borehole (DTW) to 105 feet bgs east of the pad. The borehole was temporarily set and screened using 2-inch PVC well materials. No water was present in the well during or after drilling. The well screen and casing were removed, and the borehole was plugged with 3/8-inch bentonite chips. The borehole coordinates are 32.836350°, -104.090378° and the boring location is indicated in Figure 3. The site characterization data, boring log, and temporary well diagram are included in Appendix C.

REGULATORY FRAMEWORK

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

Based on the site characterization (high karst potential) and in accordance with Table I of 19.15.29.12 NMAC, the RRALs for the Site 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

HISTORICAL ASSESSMENT AND REPORTING

The battery facility has one previous assessment event for an associated release within the firewall. Tetra Tech conducted initial site assessment activities on behalf of COG Operating LLC (COG) in 2009. Tetra Tech installed hand augers inside the facility firewalls, however only one (1) sample was collected from the surface interval of 0-1' as deeper samples could not be obtained due to the shallow dense formation at the site.

MARCH 2017 DEFERMENT REPORT

On January 26, 2017, Tetra Tech personnel were onsite to inspect the release area for access and safety concerns for assessment associated with the NAB1630550256 release. Based on the inspection, it was determined that backhoe trenches or boreholes could not be installed due to access issues with the facility equipment and active lines located inside and outside the facility firewalls. Due to access issues and limited hydrocarbon impact, COG proposed to defer the spill area until abandonment, however, the top six inches of the release area were proposed to be hand excavated to remove the heavily impacted soils. The area would then be treated by adding a Micro-Blaze product to remediate the hydrocarbon impact to the soils.

Tetra Tech prepared a Deferral Report dated March 9, 2017, which was submitted to the NMOCD via email on March 10, 2017. The Deferral was rejected by Mike Bratcher of the NMOCD via email on March 14, 2017. The reason for the rejection were as follows:

- *At this time, your request for deferment is **not** approved. OCD does approve the proposal to remove 6" of impacted material in the affected area. For deferral consideration. OCD requests the removal of impacted material to the extent practicable, and delineation to the extent practicable. Please obtain samples after the excavation event, as practicable, for documentation. Microblaze application may then be applied and the site considered for deferment.*

A copy of the Deferral Report is available in the NMOCD online incident files. A copy of the regulatory correspondence is included in Appendix B.

JUNE 2017 REVISED DEFERMENT REPORT

In June 2017, COG conducted remedial activities at the site that consisted of excavation and removal of the top six inches of impacted soils. Deeper excavation could not be performed due to the dense subsurface formation encountered at depth.
On June 7, 2017, Tetra Tech was on site to collect soil samples from the release area. Seven (7) sample locations were installed to a maximum depth of 6" bgs. A total of seven (7) samples were collected from the sample locations and sent to Xenco Laboratories in Midland, Texas to be analyzed for TPH via EPA Method 8015M and BTEX via EPA Method 8021B. Sample locations are presented in Figure 3

Analytical results from the June 2017 assessment activities are summarized in Table 1. All analytical results exceeded the TPH RRAL of 100 mg/kg. Analytical results were exceeding the BTEX RRAL of 10 mg/kg at SP-4, SP-6 and SP-7.

On behalf of COG, Tetra Tech prepared a Revised Deferment Report dated June 26, 2017, that summarized the assessment and remedial activities and requested the impact or release be deferred until abandonment as numerous underground and above ground lines, as well as equipment inside and outside the battery pose safety and access issues for sampling or remediation of soils.

The NMOCD responded to the 2017 Revised Deferment Report via email on October 16, 2017, with the following comments:

- *After a review of the proposal to defer the above referenced release, based on analytical data and potential relatively shallow depth to ground water, OCD requests a boring be installed, as close to the impacted area as possible, to determine actual depth to ground water at this site. Water quality and a determination of impact may be required. Please advise once this activity has been scheduled.*

A copy of the 2017 Report is available in the NMOCD online incident files. A copy of the regulatory correspondence is included in Appendix B.

FEBRUARY 2018 REVISED DEFERMENT REPORT

Based on the NMOCD's rejection and ensuing request, Tetra Tech re-evaluated the access at the site and was able to determine one area in the vicinity of the footprint that was accessible to the drilling rig. The earthen berm was removed to allow drilling of one borehole for vertical delineation on the eastern side of the battery facility.

On December 20, 2017, Tetra Tech was onsite to supervise the installation of one borehole (BH-1) to attempt to attain vertical delineation of the release area footprint. Based on site access, production equipment and site hazards, one borehole was installed roughly between the former locations of SP-1 and SP-2. Selected samples were analyzed for TPH analysis by EPA method 8015 modified and BTEX by EPA Method 8021B. C The borehole location is indicated on Figure 4. The sampling results were summarized and included in the February 2018 revised report.

Based on the results of the additional drilling activities, a Revised Deferment Report was completed by Tetra Tech and submitted to NMOCD, on behalf of COG, via email in 2018. The February 2018 Revised Deferment had not been approved nor rejected by the NMOCD. Therefore, the report was resubmitted via the NMOCD Fee Application Portal. On September 28, 2023, the NMOCD rejected the Revised Deferment via email (Appendix B). The following comments were included in the email:

- *Application submitted under incorrect operator OGRID. A C-145 was submitted and approved by the OCD for a change in operator for this site on 12/2/2019. Spur Energy Partners, LLC (328947) is the current operator this application was submitted under COG Operating LLC (229137). Previous submissions for this release have been reviewed. Deferral of the contamination have been denied by the OCD on 3/14/2017 and 10/16/2017. Based on these denials and the transitional*

provisions that can be found in 19.15.29.16 NMAC, this release will need to meet all the requirements of 19.15.29 NMAC (effective 8/14/2018). 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. Deferral is denied. The release is not fully delineated. Per 19.15.29.12 C. (2) NMAC "...The deferral may be granted so long as the contamination is fully delineated and does not cause an imminent risk to human health, the environment, or ground water. Final remediation and reclamation shall take place in accordance with 19.15.29.12 and 19.15.29.13 NMAC once the site is no longer being used for oil and gas operations." Horizontal and vertical delineation will need to be completed before a deferral is approved. Submit a complete report through the OCD Permitting website by 12/29/2023.

C-145 CHANGE IN OPERATOR

Spur Energy Partners, LLC (328947) acquired select properties formerly operated by COG Operating LLC (229137). However, COG retained some of the environmental liabilities and most of the acquired locations are Agreed Compliance Order ("ACO") sites. The Folk Federal #002 Release (NAB1630550256) is such a site, and is included in an ACO with the NMOCD, related to unresolved releases from ConocoPhillips's predecessor-in-interest ("COG"). A C-145 was submitted and approved by the OCD for a change in operator from COG to Spur.

2023 ADDITIONAL SITE ASSESSMENT AND SAMPLING RESULTS

Tetra Tech conducted additional assessment sampling at the Site on behalf of COP to evaluate current conditions within and around the release footprint and assess remaining concentration levels in soil. On December 19-20, 2023, Tetra Tech oversaw the installation of four (4) hand auger borings (HA-1 through HA-5) to 0-1' bgs around the approximate release extent to obtain horizontal delineation. One additional trench was installed (T-1) to 2.25' bgs within the earthen berm in an accessible area of the release footprint to obtain vertical delineation. The mini-excavator met refusal at approximately 2-2.25 feet bgs. The additional sampling locations are indicated in Figure 5.

A total of ten (10) soil samples were collected from the five hand auger borings and trench location and sent to Cardinal Laboratories in Hobbs, NM to be analyzed for chloride via EPA Method 300.0, TPH via EPA Method 8015M, and BTEX via EPA Method 8261B. A copy of the laboratory analytical report and chain-of-custody documentation are included in Appendix D.

Analytical results from the December 2023 soil sampling event are summarized in Table 2. Analytical results associated with trench location T-1 exceeded the RRAL of 100 mg/kg TPH down to 2' bgs. All other analytical results were below the chloride, TPH, benzene and Total BTEX reclamation requirements of 600 mg/kg, 100 mg/kg, 10 mg/kg and 50 mg/kg, respectively. Vertical delineation was achieved. The release extent observed by Tetra Tech and sample locations are presented in Figure 5.

REMEDIATION WORK PLAN

Based on ongoing correspondence with Spur EHS Manager Braidy Moulder, this battery facility is scheduled for decommissioning in March 2024. Thus, prior to beginning remedial action proposed below, the tank battery and related production equipment will have been removed from the release area footprint.

Based on the analytical results, COP proposes to remove the remaining impacted material as shown in Figure 6. Impacted soils will be excavated to a maximum depth of 2 feet below the surrounding surface or until a representative sample from the walls and bottom of the excavation is below the Site RRALs. Heavy equipment (backhoe and track hoe) will be utilized to excavate areas outside the immediate vicinity of pressurized lines and will come no more than 4 feet from any pressurized lines.

Excavated soils will be transported offsite and disposed of at an NMOCD-approved or permitted facility. Confirmation bottom and sidewall samples will be collected for verification of remedial activities, and analyzed for TPH, BTEX, and chlorides. In accordance with subsection D of 19.15.29.12 NMAC, the responsible party will notify the appropriate division district office prior to conducting confirmation sampling. The estimated volume of material to be remediated is approximately 226 cubic yards.

CONFIRMATION SAMPLING PLAN

In accordance with 19.15.29.12(D)(1)© NMAC, confirmation samples will be collected to adhere with NMOCD requirements. Eight (8) confirmation floor sample and four (4) confirmation sidewall samples will be collected for verification of remedial activities. The proposed excavation encompasses a surface area of approximately 3049 square feet.

These confirmation sidewall and floor samples will be representative of no more than approximately 400 square feet of excavated area. Confirmation samples will be sent to an accredited analytical laboratory for analysis of chloride, TPH, and BTEX. Once acceptable results are received, the excavation will then be backfilled with clean material to surface grade.

SITE RECLAMATION PLAN

In summary, in accordance with 19.15.29.13 NMAC, all areas disturbed by the remediation will be reclaimed. Collected confirmation samples will placed into laboratory-provided sample containers, transferred under chain-of-custody, and analyzed within appropriate holding times by an accredited laboratory. The soil samples will be analyzed for TPH (GRO+DRO+MRO) by EPA Method 8015M, BTEX by EPA Method 8021B, and chlorides by SM4500Cl-B.

In accordance with 19.15.29.12 NMAC, the reclaimed area will contain non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by SM4500Cl-B in the upper 4’ feet. Photographs will include pictures of the top layer, which is one foot of suitable material to establish vegetation at the site.

Once acceptable confirmation sample results are received, the excavation will be backfilled with clean material to pre-release grade. The backfilled areas in the pasture will be seeded to aid in revegetation. Based on the soils of the site the BLM seed mixture for LPC Sand/Shinnery Sites and will be planted in the amount specified in the pounds pure live seed (PLS) per acre. The seed mixture will be spread by a drill equipped with a depth regulator or a hand-held broadcaster and raked. If a hand-held broadcaster is used for dispersal, the pounds pure live seed per acre will be doubled.

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 BLM 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 BLM seed mixture details in corresponding pounds per live seed per acre are included in Appendix F.

CONCLUSION

ConocoPhillips proposes to begin remediation activities at the Site within 120 days of NMOCD and NMSLO plan approval. Upon completion of the proposed work, a final closure report detailing the remediation and reclamation activities and the results of the confirmation sampling will be submitted to both NMOCD and NMSLO.

If you have any questions concerning the soil assessment or the proposed remedial activities for the Site, please call me at (512) 560-9064 or Christian at (512) 338-2861.

Sincerely,
Tetra Tech, Inc.

Nicholas M. Poole
Project Lead

Christian M. Llull, P.G.
Program Manager

cc:
Mr. Ike Tavarez, PBU – RMR Program Manager
Mr. Braidy Moulder, Spur Energy Partners – EHS Manager

LIST OF ATTACHMENTS

Figures:

Figure 1 – Overview Map
Figure 2 – Topographic Map
Figure 3 – Depth-To-Water Boring Location
Figure 4 – Approximate Release Extent and Initial Response
Figure 5 – Additional Site Assessment (2023)
Figure 6 – Proposed Remediation Extent
Figure 7 – Alternative Confirmation Sampling Plan

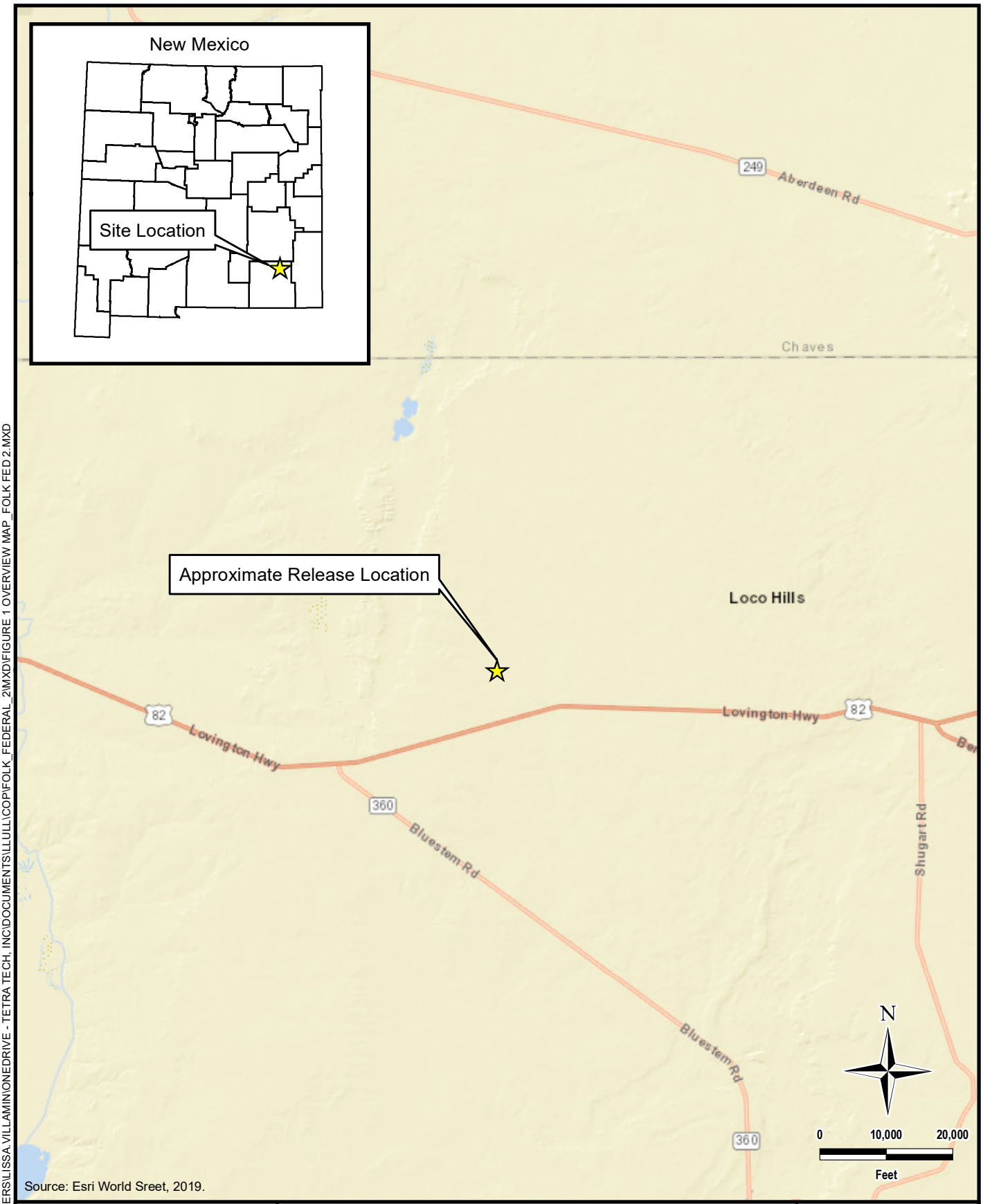
Tables:

Table 1 – Summary of Analytical Results – 2017 Soil Assessment
Table 2 – Summary of Analytical Results – 2023 Soil Assessment

Appendices:

Appendix A – C-141 Forms
Appendix B – Regulatory Correspondence
Appendix C – Site Characterization Data
Appendix D – Laboratory Analytical Data
Appendix E – Photographic Documentation
Appendix F – BLM Seed Mixture Details

FIGURES



DOCUMENT PATH: C:\USERS\LISSA.VILLAMIN\ONEDRIVE - TETRA TECH, INC\DOCUMENTS\LLULL\COP\FOLK_FEDERAL_2\MXD\FIGURE 1 OVERVIEW MAP_FOLK FED 2.MXD

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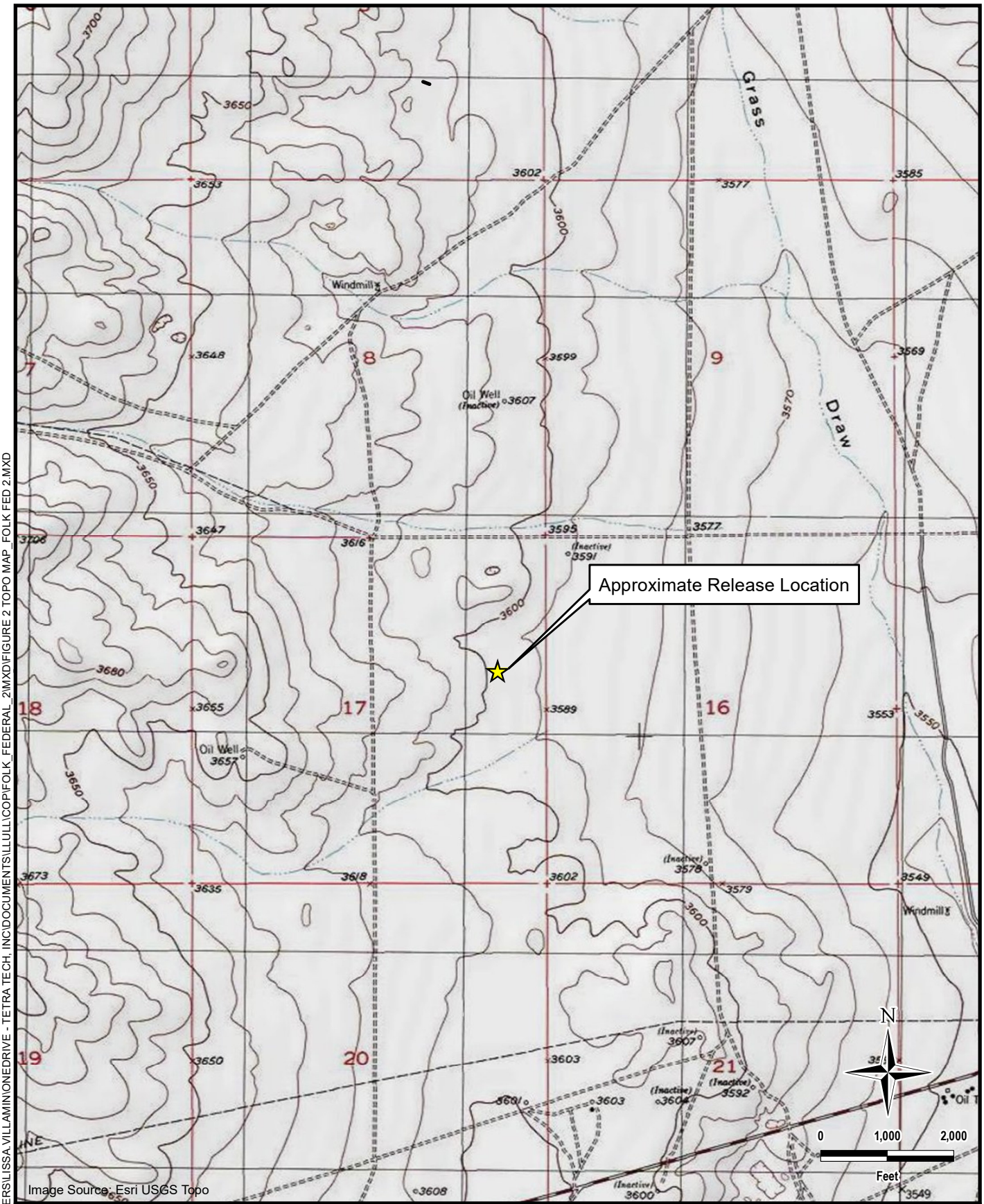
CONOCOPHILLIPS

NAB1630550256
(32.8361122°, -104.090549°)
EDDY COUNTY, NEW MEXICO

FOLK FEDERAL #002 TANK BATTERY
OVERVIEW MAP

PROJECT NO.:	212C-MD-03291
DATE:	DECEMBER 20, 2023
DESIGNED BY:	LMV

Figure No.
1



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EDDY COUNTY, NEW MEXICO

FOLK FEDERAL #002 TANK BATTERY
TOPOGRAPHIC MAP

PROJECT NO.:	212C-MD-03291
DATE:	DECEMBER 20, 2023
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Figure No.
2

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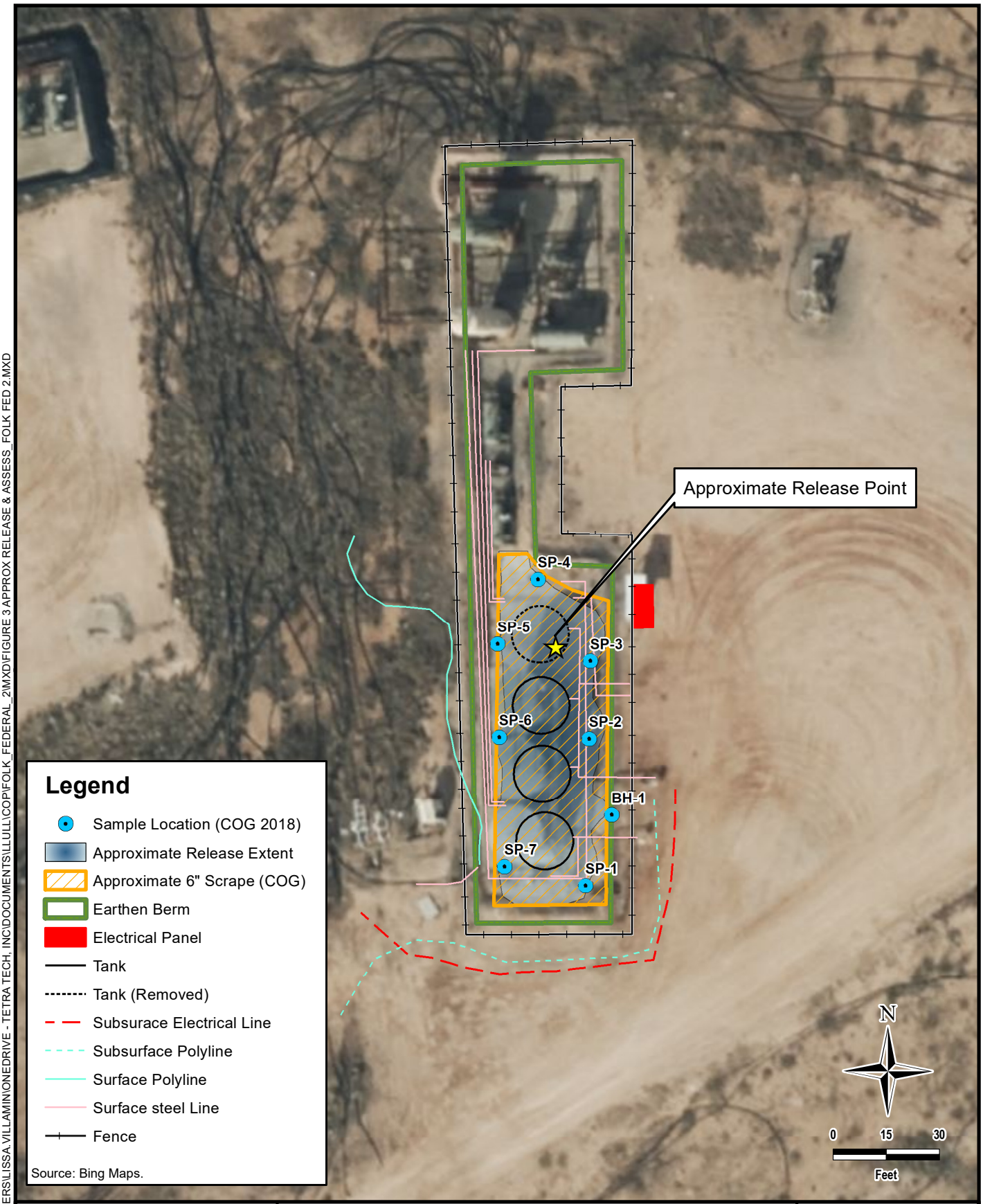
FOLK FEDERAL #002 TANK BATTERY
DEPTH-TO-WATER BORING LOCATION

PROJECT NO.:	212C-MD-03291
DATE:	FEBRUARY 09, 2024
DESIGNED BY:	LMV

Figure No.
3



DOCUMENT PATH: C:\USERS\LISSA.VILLAMIN\ONEDRIVE - TETRA TECH, INC\DOCUMENTS\LLULL\COP\FOLK_FEDERAL_2\MXD\FIGURE 3 APPROX RELEASE & ASSESS_FOLK FED 2.MXD

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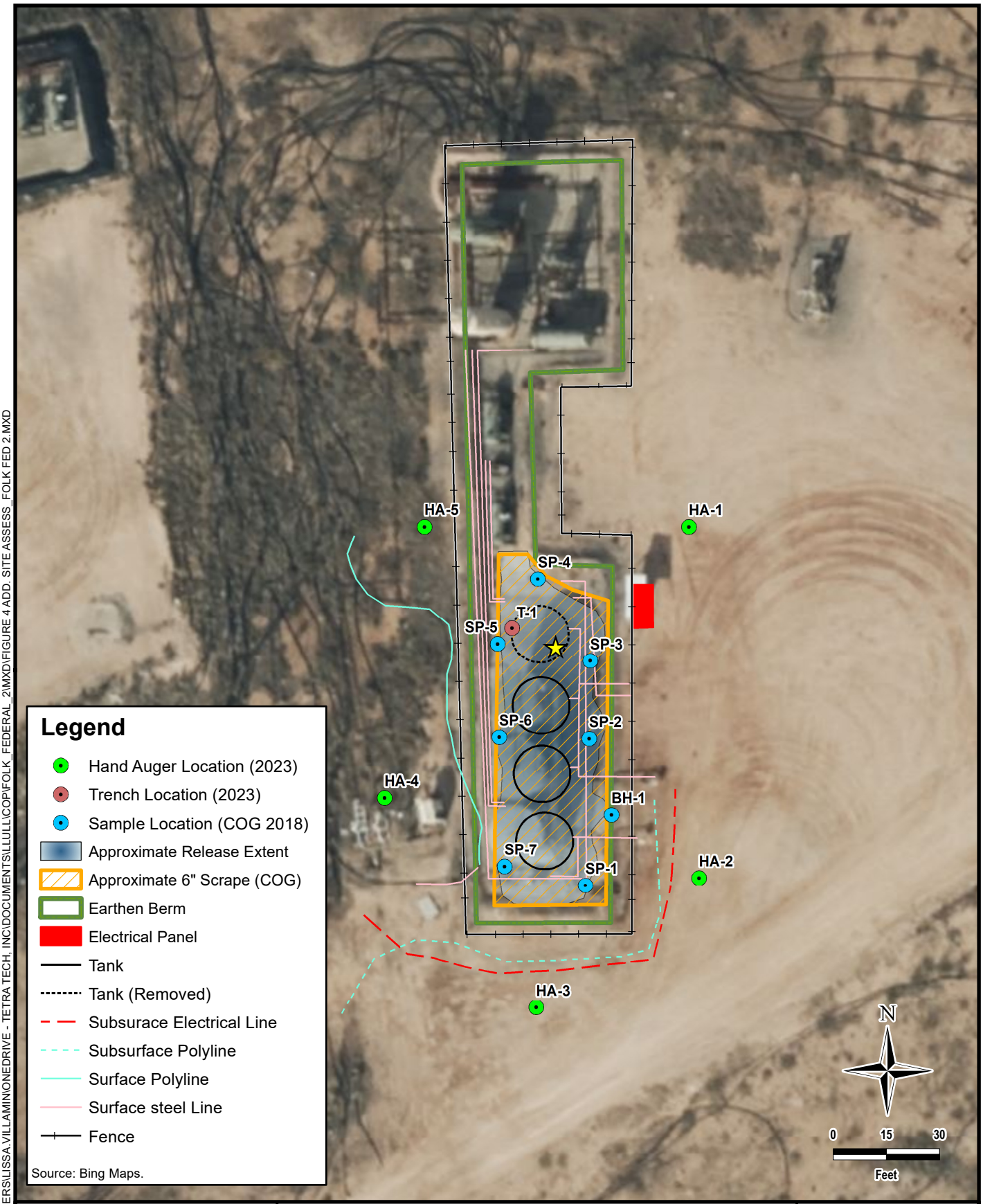
FOLK FEDERAL #002 TANK BATTERY
APPROXIMATE RELEASE EXTENT AND INITIAL RESPONSE

PROJECT NO.:	212C-MD-03291
DATE:	DECEMBER 21, 2023
DESIGNED BY:	LMV

Figure No.
4



DOCUMENT PATH: C:\USERS\LISSA.VILLAMIN\ONEDRIVE - TETRA TECH, INC\DOCUMENTS\LLULL\COP\FOLK_FEDERAL_2\MXD\FIGURE 4 ADD. SITE ASSESS_FOLK FED 2.MXD

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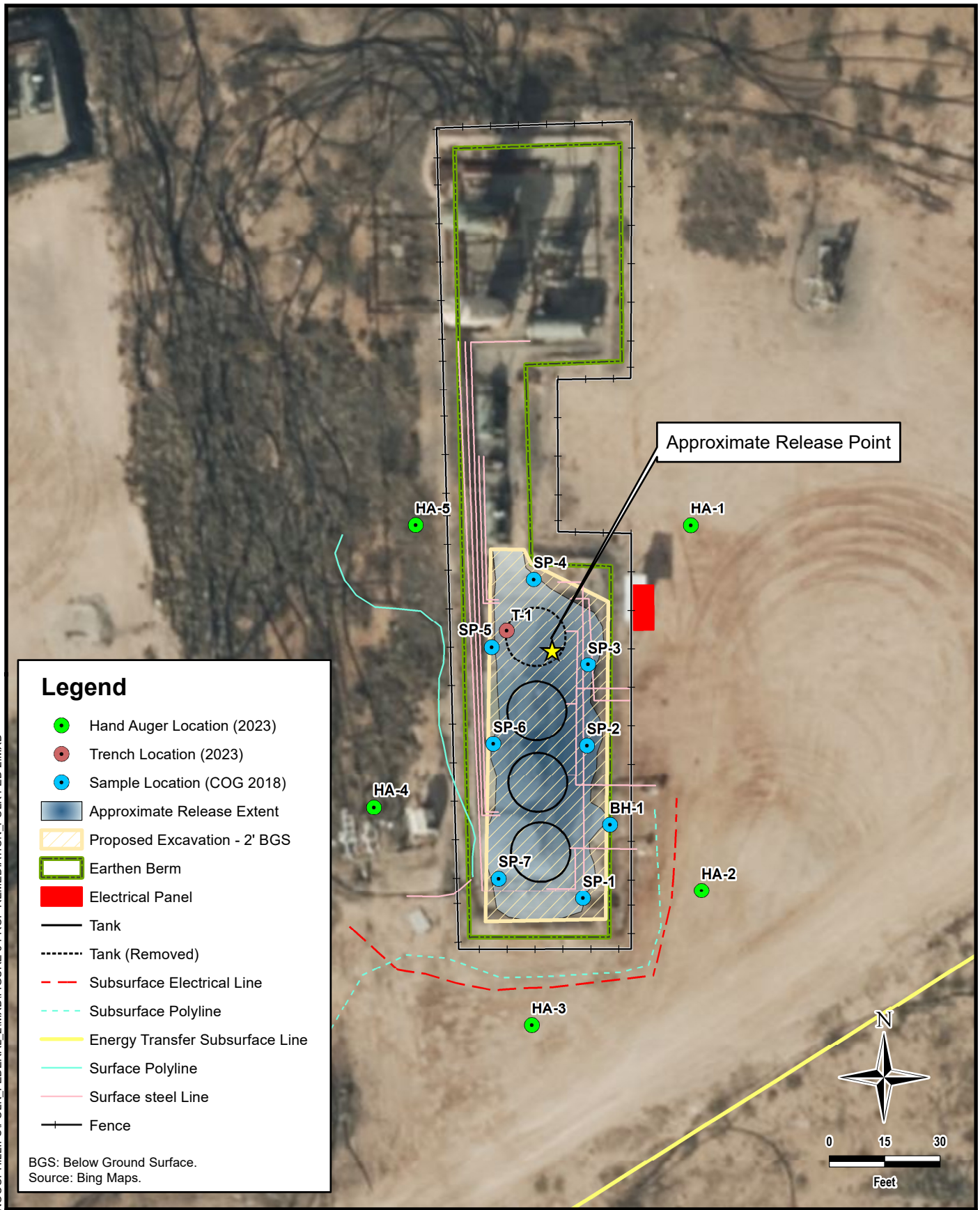
FOLK FEDERAL #002 TANK BATTERY
ADDITIONAL SITE ASSESSMENT (2023)

PROJECT NO.:	212C-MD-03291
DATE:	FEBRUARY 01, 2024
DESIGNED BY:	LMV

Figure No.
5



DOCUMENT PATH: Y:\CONOCOPHILLIPS\FOLK_FEDERAL_2\MXD\FIGURE 6 PROP REMEDIATION_FOLK FED 2.MXD

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EDDY COUNTY, NEW MEXICO

FOLK FEDERAL #002 TANK BATTERY
PROPOSED REMEDIATION EXTENT

PROJECT NO.:	212C-MD-03291
DATE:	MARCH 13, 2024
DESIGNED BY:	LMV

Figure No.
6

TABLES

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
2017 SOIL ASSESSMENT - NAB1630550256
CONOCOPHILLIPS
FOLK FEDERAL #002
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth	BTEX[2]										TPH[3]						
			Benzene		Toluene		Ethylbenzene		Xylene		Total BTEX		GRO		DRO		EXT DRO		Total TPH
													C_6 - C_{10}		> C_{10} - C_{28}		> C_{28} - C_{36}		(GRO+DRO+EXT DRO)
		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
SP-1	6/7/2017	0-0.5	<0.00372		<0.00372		<0.00372		<0.00372		<0.00372		379		3,350		355		***4,080***
SP-2	6/7/2017	0-0.3	<0.00356		<0.00356		0.00731		0.00772		0.015		349		4,840		533		***5,720***
SP-3	6/7/2017	0-0.3	<0.00380		<0.00380		0.0428		0.0438		0.0866		501		4,810		504		***5,820***
SP-4	6/7/2017	0-0.3	0.404		1.01		25.6		78.2		105		1,280		4,520		363		***6,160***
SP-5	6/7/2017	0-0.3	<0.00389		<0.00389		<0.00389		<0.00389		<0.00389		215		2,900		283		***3,400***
SP-6	6/7/2017	0-0.5	7.69		59.2		93.4		344		504		6,410		7,520		952		***14,900***
SP-7	6/7/2017	0-0.5	7.69		99.3		111		203		421		4,450		5,330		607		***10,400***
BH-1	12/20/2017	0-1	<0.00199		<0.00199		<0.00199		<0.00199		<0.00199		<15.0		<15.0		<15.0		<15.0
		2-3	<0.00198		<0.00198		<0.00198		<0.00198		<0.00198		<15.0		<15.0		<15.0		<15.0
		4-5	<0.00201		<0.00201		<0.00201		<0.00201		<0.00201		<15.0		<15.0		<15.0		<15.0

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 8021B

2 Method 8015M

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

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
2023 SOIL ASSESSMENT - NAB1630550256
CONOCOPHILLIPS
FOLK FEDERAL #002
EDDY COUNTY, NM

Sample ID	Sample Date	Sample Depth	Field Screening Results		Chloride[1]		BTEX[2]										TPH[3]							
			Chloride	PID			Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO		DRO		EXT DRO		Total TPH
																	C_6 - C_{10}		> C_{10} - C_{28}		> C_{28} - C_{36}		(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
HA-1	12/19/2023	0-1	72.1		32.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
HA-2	12/19/2023	0-1	69.7		32.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
HA-3	12/19/2023	0-1	63.8		<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		<10.0		-
HA-4	12/19/2023	0-1	65.2		<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		<10.0		10.0		10.0
HA-5	12/19/2023	0-1	98		16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		22.7		17.0		39.7
T-1	12/20/2023	0-0.5			<16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		***1440***	QM-07	***732***		***2172***
		0.5-1			32.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		***1270***		***585***		***1855***
		1-1.5			32.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		***656***		***377***		***1033***
		1.5-2			48.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		***458***		***242***		***700***
		2-2.25			16.0		<0.050		<0.050		<0.050		<0.150		<0.300		<10.0		68.9		21.9		90.8

NOTES:

ft. Feet

bgs Below ground surface

mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbons

GRO Gasoline range organics

DRO Diesel range organics

1 Method SM4500Cl-B

2 Method 8021B

3 Method 8015M

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

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.

APPENDIX A
C-141 Forms

Received 10/25/2016
NMOCD Artesia

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 August 8, 2011

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	Contact: Robert McNeill
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No. 432-230-0077
Facility Name: FOLK FEDERAL TANK BATTERY	Facility Type: Battery

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-20198

LOCATION OF RELEASE

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

Latitude 32.836062 Longitude -104.090789

NATURE OF RELEASE

Type of Release: Oil	Volume of Release: 18 bbls of Oil	Volume Recovered: 16 bbls of Oil
Source of Release: Hole in Tank	Date and Hour of Occurrence: 10/14/2016 unknown	Date and Hour of Discovery: 10/14/2016 12:00 PM
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
This release was caused by a hole in the bottom of the oil tank. The tank was taken out of service and the valves going to it were closed. Vacuum trucks were immediately dispatched to recover all standing fluid.

Describe Area Affected and Cleanup Action Taken.*
This release occurred and remained within the bermed area of the facility. The contaminated gravel has been removed and replaced with fresh gravel. Concho will have the spill site sampled to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation work.

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: Dakota Neel	OIL CONSERVATION DIVISION Approved by Environmental Specialist:	
Printed Name: Dakota Neel		
Title: Environmental Coordinator	Approval Date: 10/26/2016	Expiration Date: N/A
E-mail Address: dneel2@concho.com	Conditions of Approval: see attached	Attached ☒
Date: October 24, 2016 Phone: 575-748-6933		

* Attach Additional Sheets If Necessary

2RP-3964

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 10/25/2016 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number **2RP-3964** has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District II office in Artesia on or before 11/26/2016. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

● Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized to the following concentrations: benzene 10 mg/kg, total BTEX 50 mg/kg, TPH (GRO+DRO+MRO; C_6 thru C_{36}) 100 mg/kg, chloride 600 mg/kg. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

● Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized to the following concentrations: benzene 10 mg/kg, total BTEX 50 mg/kg, TPH (GRO+DRO+MRO; C_6 thru C_{36}) 100 mg/kg, chloride 250 mg/kg. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

● No inference should be made concerning the minimum characterization concentrations expressed above as to the ultimate remediation levels which might be approved. Nominal detection limits for field and laboratory analyses must be provided.

● Composite sampling is not generally allowed.

● Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

●Probable depth to shallowest groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

● If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

● Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

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?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☐ 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)?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☐ 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?	☐ Yes ☐ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☐ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☐ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☐ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☐ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☐ No

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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: _____ Date: _____

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

Signature: _____ Date: _____

APPENDIX B
Regulatory Correspondence

Chama, Sam

From: Taylor, Shelly J <sjtaylor@blm.gov>
Sent: Tuesday, January 2, 2024 8:57 AM
To: Chama, Sam
Subject: Re: [EXTERNAL] RE: Access Request - Folk Federal #002 Tank Battery Release (NAB1630550256)

BLM grants authorization to drill the borehole to determine water depth.

Sincerely,

Shelly J Taylor
Assistant Field Manager
Lands & Minerals - Acting

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

Direct 575.627.0250
Mobile 575.200.0614
sjtaylor@blm.gov

From: Chama, Sam <SAM.CHAMA@tetratech.com>
Sent: Monday, January 1, 2024 8:06 PM
To: Taylor, Shelly J <sjtaylor@blm.gov>
Subject: [EXTERNAL] RE: Access Request - Folk Federal #002 Tank Battery Release (NAB1630550256)

Hi Shelly,

I wanted to follow up with you and confirm we had received approval to perform a depth to water borehole on BLM land at the previously mentioned site.

Thank you,
Sam Chama, G.I.T. | Sci. Geologist III
Mobile **+1 (509) 768-2191** | Business **+1 (512) 338-1667** | Fax **+1 (512) 338-1331** | sam.chama@tetratech.com

Tetra Tech | *Leading with Science®* | OGA
8911 N. Capital of Texas Highway | Bldg. 2, Suite 2310 | Austin, TX 78759 | tetratech.com

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From: Chama, Sam
Sent: Monday, December 18, 2023 10:26 AM
To: sjtaylor@blm.gov
Subject: RE: Access Request - Folk Federal #002 Tank Battery Release (NAB1630550256)

Hi Shelly,

Thank you for taking my call this morning. We have authorization from Spur to drilling the boring for the depth-to-water boring on their pad. This email is to follow up on our conversation where you gave me verbal authorization for access.

Thank you,

Sam Chama, G.I.T. | Sci. Geologist III
Mobile **+1 (509) 768-2191** | Business **+1 (512) 338-1667** | Fax **+1 (512) 338-1331** | sam.chama@tetratech.com
Tetra Tech | *Leading with Science®* | OGA
8911 N. Capital of Texas Highway | Bldg. 2, Suite 2310 | Austin, TX 78759 | tetratech.com

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From: Chama, Sam
Sent: Monday, December 18, 2023 10:20 AM
To: sjtaylor@blm.gov
Subject: Access Request - Folk Federal #002 Tank Battery Release (NAB1630550256)
Importance: High

Shelly,

Tetra Tech is assisting ConocoPhillips with assessment activities associated with an older historical release (occurred on October 14, 2016) on BLM land.
The **Folk Federal #002 Tank Battery Release** released approximately 18 barrels (bbls) of crude oil, of which 16 bbls of oil were recovered.
It was an on pad release footprint, and remained within the berm of the tank battery.

In order to complete the assessment and the submittal process we are requesting verbal approval to install a Depth to water borehole (DTW) off a right of way (ROW) on BLM Land, on the east side of the pad.
KMZ file attached and screengrab below.

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

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

Folk Federal #002 Tank Battery Release
Unit Letter H, Section 17, Township 17 South, Range 29 East
Eddy County, New Mexico
Incident Identification (ID) NAB1630550256
Approximate Release Location: 32.836131°, -104.090794°
Date Release Discovered: October 14, 2016
Volume Released: Approximately 18 barrels (bbls) of crude oil.
Release on Pad, inside tank battery berm.

Thank you,
Sam Chama, G.I.T. | Sci. Geologist III
Mobile **+1 (509) 768-2191** | Business **+1 (512) 338-1667** | Fax **+1 (512) 338-1331** | sam.chama@tetratech.com
Tetra Tech | *Leading with Science*® | OGA
8911 N. Capital of Texas Highway | Bldg. 2, Suite 2310 | Austin, TX 78759 | tetratech.com

File No. RA- 13407

NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL A WELL WITH NO WATER RIGHT

(check applicable box):

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

Purpose:	☐ Pollution Control And/Or Recovery	☐ Ground Source Heat Pump
☐ Exploratory Well*(Pump test)	☐ Construction Site/Public Works Dewatering	☒ Other(Describe): Borehole
☐ Monitoring Well	☐ Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

*New Mexico Environment Department Drinking Water Bureau (NMED-DWB) will be notified if a proposed exploratory well is used for public water supply.

☒ Temporary Request - Requested Start Date: 1/2/2024 Requested End Date: 1/2/2025

Plugging Plan of Operations Submitted? ☒ Yes ☐ No

1. APPLICANT(S)

Name: Tetra Tech on behalf of ConocoPhillips	Name:
Contact or Agent: Christian Llull — check here if Agent ☐	Contact or Agent: — check here if Agent ☐
Mailing Address: 8911 N Capital of Texas Hwy #2310	Mailing Address:
City: Austin	City:
State: Texas Zip Code: 78759	State: Zip Code:
Phone: 512-338-1667 ☐ Home ☒ Cell Phone (Work):	Phone: ☐ Home ☐ Cell Phone (Work):
E-mail (optional): Christian.Llull@tetratech.com	E-mail (optional):

OCD Hobbs JAN 3 2024 AM 11:23

FOR OSE INTERNAL USE — Application for Permit, Form WR-07, Rev 07/12/22

File No.: RA-13407	Trn. No.: 754831	Receipt No.: 2-46490
Trans Description (optional): MON		
Sub-Basin: RA	PCW/LOG Due Date: 1-10-25	

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

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).
District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

☐ NM State Plane (NAD83) (Feet)
☐ NM West Zone
☐ NM East Zone
☐ NM Central Zone

☐ UTM (NAD83) (Meters)
☐ Zone 12N
☐ Zone 13N

■ Lat/Long (WGS84) (to the nearest 1/10th of second)

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: **-Public Land Survey System (PLSS) (*Quarters or Halves , Section, Township, Range*) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name**
RA-13407 Pod1 Folk Federal #2_DTW	32.836223°	-104.090379°	Unit Letter H, Section 17, Township 17S, Range 29E

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)
Additional well descriptions are attached: ☐ **Yes** ■ **No** **If yes, how many**_____

Other description relating well to common landmarks, streets, or other:

Well is on land owned by:: BLM

Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. **Attached?** ☐ **Yes** ■ **No**
If yes, how many_____

Approximate depth of well (feet): 105	Outside diameter of well casing (inches):
Driller Name: John Scarborough	Driller License Number: WD1188

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

OCD Hobbs JAN 3 2024 AM 11:23

Drilling borehole to determine depth to groundwater.

The borehole will be installed on pad on land owned by the Bureau of Land Management, however, the facilities were formerly operated by Concho Operating Group are are now operated by Spur Energy Partners. The BLM has been contacted in order to coordinate approval for access and drilling the borehole. The correspondence giving approval for drilling operations is included with the application.

FOR OSE INTERNAL USE Application for Permit, Form WR-07 Version 07/12/22

File No.: RA-13407	Trn No.: 754831

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

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

ACKNOWLEDGEMENT

I, We (name of applicant(s)), CHRISTIAN M. LLULL
Print Name(s)

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

Applicant Signature

Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

☑ approved ☐ partially approved ☐ denied

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

Witness my hand and seal this 10th day of January 20 24, for the State Engineer,

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

OSE DIT JAN 3 2024 AM 11:23

By: K. Parekh
Signature

Kashyap Parekh
Print

Title: Water Resources Manager I
Print

FOR OSE INTERNAL USE — Application for Permit, Form WR-07 Version 07/12/22

File No.: RA-13407 | Trn No.: 754831

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL

17-16 Construction of a water well by anyone without a valid New Mexico Well Driller License is illegal, and the landowner shall bear the cost of plugging the well by a licensed New Mexico well driller. This does not apply to driven wells, the casing of which does not exceed two and three-eighths inches outside diameter.

17-1A Depth of the well shall not exceed the thickness of the valley fill.

17-4 No water shall be appropriated and beneficially used under this permit.

17-6 The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable and approved by the state engineer. The well shall be plugged with an office of the state engineer approved sealant for use in the plugging of non-artesian wells. The well driller shall cut the casing off at least four (4) feet below ground surface and fill the open hole with at least two vertical feet of approved sealant. The driller must fill or cover any open annulus with sealant. Once the sealant has cured, the well driller or well owner may cover the seal with soil. A Plugging Report for said well shall be filed with the Office of the State Engineer in a District Office within 30 days of completion of the plugging.

Trn Desc: RA 13407 POD1

File Number: RA 13407
Trn Number: 754831

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

17-7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

17-B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig, provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.

17-C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record.
The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.

17-P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.

17-Q The State Engineer retains jurisdiction over this permit.

17-R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

LOG The Point of Diversion RA 13407 POD1 must be completed and the Well Log filed on or before 01/09/2025.

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

ACTION OF STATE ENGINEER

Notice of Intention Rcvd:	Date Rcvd. Corrected:
Formal Application Rcvd: 01/03/2024	Pub. of Notice Ordered:
Date Returned - Correction:	Affidavit of Pub. Filed:

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

Witness my hand and seal this 10 day of Jan A.D., 2024

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

By: K. Parekh
KASHYAP PAREKH

Trn Desc: RA 13407 POD1

File Number: RA 13407
Trn Number: 754831

Bratcher, Mike, EMNRD

From: Bratcher, Mike, EMNRD
Sent: Tuesday, March 14, 2017 9:23 AM
To: 'Tavarez, Ike'; Weaver, Crystal, EMNRD; Tucker, Shelly (stucker@blm.gov)
Cc: Robert McNeill; Rebecca Haskell; Robert Grubbs; Gonzales, Clair
Subject: RE: COG Operating - Folk Federal Tank Battery - Eddy County, New Mexico - Deferment Report

RE: COG * Folk Federal Tank Battery * **2RP-3964** * DOR: 10/14/16

Greetings,

At this time, your request for deferment is **not** approved. OCD does approve the proposal to remove 6" of impacted material in the affected area. For deferral consideration, OCD requests the removal of impacted material to the extent practicable, and delineation to the extent practicable. Please obtain samples after the excavation event, as practicable, for documentation. Microblaze application may then be applied and the site reconsidered for deferment.

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

If you have any questions or concerns, please contact me.

Mike Bratcher
NMOCD District 2
811 S. First St.
Artesia NM 88210
575-748-1283 Ext 108
mike.bratcher@state.nm.us

From: Tavarez, Ike [mailto:Ike.Tavarez@tetratech.com]
Sent: Friday, March 10, 2017 2:18 PM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Weaver, Crystal, EMNRD <Crystal.Weaver@state.nm.us>; Tucker, Shelly (stucker@blm.gov) <stucker@blm.gov>
Cc: Robert McNeill <RMcNeill@concho.com>; Rebecca Haskell <RHaskell@concho.com>; Robert Grubbs <RGrubbs@concho.com>; Gonzales, Clair <Clair.Gonzales@tetratech.com>
Subject: COG Operating - Folk Federal Tank Battery - Eddy County, New Mexico - Deferment Report

All,

Here is the COG Operating Deferment Report for the Folk Federal Tank Battery located in Eddy County, New Mexico. Please review and contact me if you a have any questions or comment on the deferment, thanks

Ike Tavarez, PG | **Senior Project Manager**

Main: 432.682.4559 | Fax: 432.682.3946 | Cell: 432.425.3878

Ike.Tavarez@tetratech.com

Tetra Tech | Complex World, Clear Solutions™

4000 North Big Spring, Suite 401 | Midland, TX 79705 | www.tetratech.com

Bratcher, Mike, EMNRD

From: Bratcher, Mike, EMNRD
Sent: Monday, October 16, 2017 9:00 AM
To: Gonzales, Clair; Tucker, Shelly
Cc: Tavarez, Ike; Rebecca Haskell; Dakota Neel; Robert McNeill; Weaver, Crystal, EMNRD
Subject: RE: COG - Folk Federal Tank Battery - 2RP-3964 - Deferment Report

RE: COG * Folk Federal Tank Battery * 2RP-3964 * DOR: 10/14/16

Greetings,

After a review of the proposal to defer the above referenced release, based on analytical data and potential relatively shallow depth to ground water, OCD requests a boring be installed, as close to the impacted area as possible, to determine actual depth to ground water at this site. Water quality and a determination of impact may be required. Please advise once this activity has been scheduled.

If you have any questions or concerns, please contact me.

Mike Bratcher
NMOCD District 2
811 South First Street
Artesia, NM 88210
575-748-1283 Ext 108

From: Gonzales, Clair [mailto:Clair.Gonzales@tetratech.com]
Sent: Monday, July 10, 2017 8:22 AM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Tucker, Shelly <stucker@blm.gov>
Cc: Tavarez, Ike <Ike.Tavarez@tetratech.com>; Rebecca Haskell <RHaskell@concho.com>; Dakota Neel <DNeel2@concho.com>; Robert McNeill <RMcNeill@concho.com>
Subject: COG - Folk Federal Tank Battery - 2RP-3964 - Deferment Report

Good Morning,

Attached is the Deferment Report for the above mentioned site in Eddy County, New Mexico. Please review and let me know if you have any questions or concerns.

Thank you,

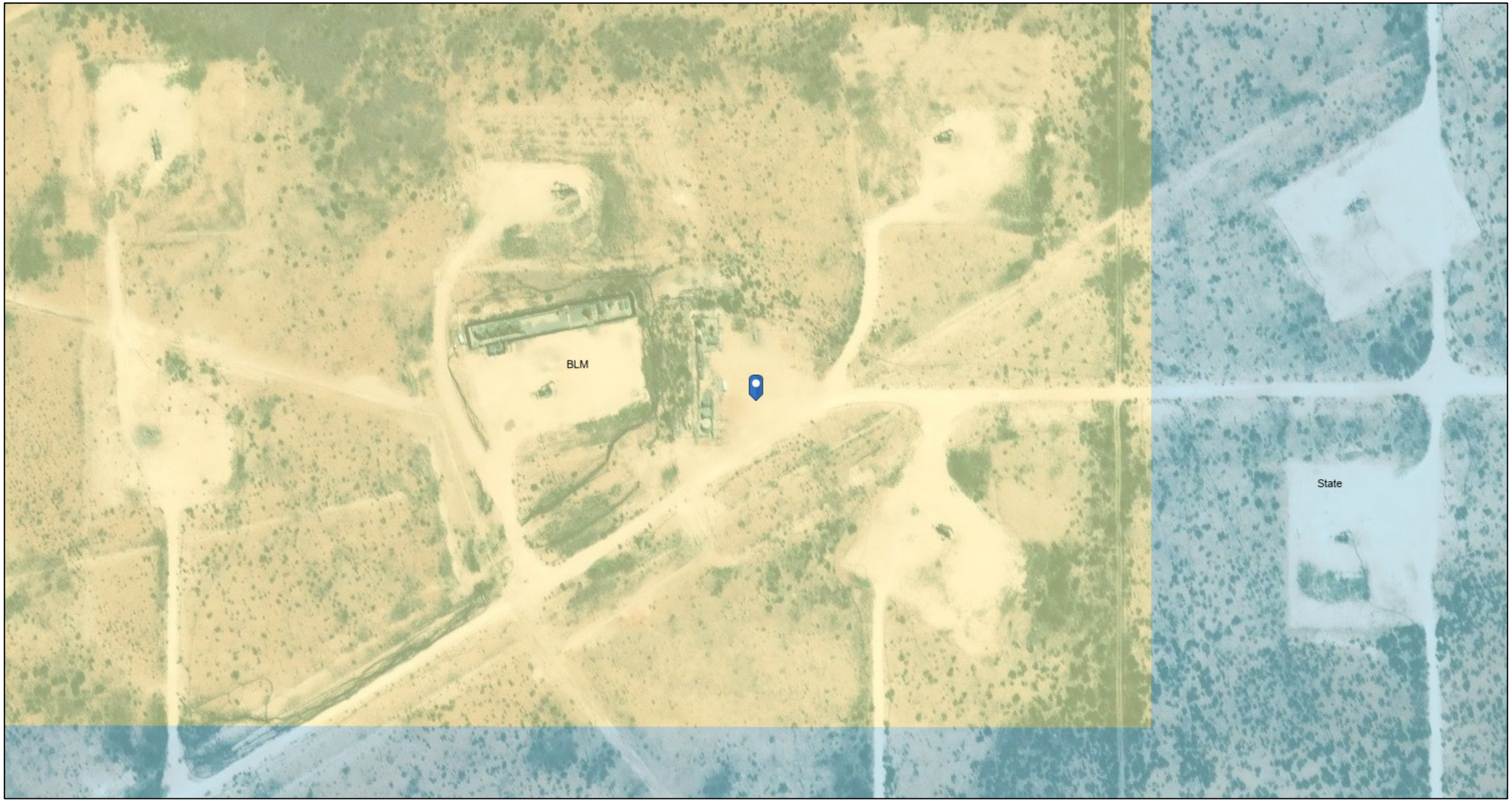
Clair Gonzales

Clair Gonzales | **Geologist III**
Phone: 432.687.8123| Mobile 432.260.8634 | Fax:432.682.3946
clair.gonzales@tetratech.com

Tetra Tech | Complex World, CLEAR SOLUTIONS™
4000 N. Big Spring | Midland, TX 79705 | www.tetratech.com

APPENDIX C
Site Characterization Data

OCD Land Ownership



3/12/2024, 10:40:16 AM

Land Ownership

BLM

S

1:2,257

0 0.02 0.04 0.09 mi

0 0.04 0.07 0.15 km

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

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-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
RA 11807 POD1	RA	ED	1	2	3	22	17S	29E	587360	3631585	2958	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): 585092.38 **Northing (Y):** 3633486.76 **Radius:** 3200

OCD - USGS Groundwater Wells

12/4/2023, 1:02:01 PM

1:18,056

USGS Historical GW Wells

OSE Streams

0 0.17 0.35 0.7 mi

0 0.3 0.6 1.2 km

USGS, Esri, HERE, Garmin, iPC, Maxar, NM OSE

212C-MD-03291 | TETRA TECH | **LOG OF BORING Folk Federal #002 DTW** | Page 1 of 1

Project Name: Folk Federal #002

Borehole Location: GPS Coordinates: 32.836350°, -104.090378° | Surface Elevation: 3604'

Borehole Number: **Folk Federal #002 DTW** | Borehole Diameter (in.): 8" | Date Started: | Date Finished: 2/5/2024

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY 24 Hours After Completion of Drilling ▽ DRY

Remarks:

DEPTH (ft)	OPERATION TYPES	SAMPLE	CHLORIDE CONCENTRATION (ppm) ExStik	VOC CONCENTRATION (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)
0													0
												-SP- SAND: Light brown, loose, dry, fine-grained, with caliche fragments	2
5												**-SP-** SAND: Light brown, loose, dry, fine-grained, with small caliche fragments	4
													6
10												**-SM-** SAND: Light reddish brown, very loose, dry, fine-grained, trace caliche fragments	9
15												**-SM-** SAND: Light reddish brown, very loose, dry, fine-grained, with gravel-size caliche fragments	14
20												**-SM-** SAND: Brown to reddish brown, weakly cemented, very fine- to fine-grained, trace caliche fragments	19
25												**-SC-** CLAYEY SAND: Reddish brown, medium dense, dry, fine-grained, moderately cemented	25
30												**-SM-** SAND: Pale reddish brown, weakly cemented, dry, very fine- to fine-grained, with caliche fragments	30
35												**-SP-** SAND: Light reddish brown, well indurated, strongly cemented, dry, fine-grained	39
40												**-SP-** SAND: Pale brown, loose, dry, fine- to coarse-grained, trace gravel	49
45												**-SP-** SAND AND GRAVEL: Pale gray to pale brown, dry, fine- to coarse-grained sand	59
50												-- GYPSUM: Pale gray, dry, massive, microcrystalline	
55												-- GYPSUM: White, dry, massive, microcrystalline	
60													
65													
70													
75													
80													
85													
90													
95													
100													
105													105

WELL DIAGRAM: Capped Pipe; 4" Schedule 40 PVC Casing; 4" Schedule 40 PVC Slotted Screen (0.010")

Bottom of borehole at 105.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Auger, Hollow Stem Auger, Air Rotary, Continuous Flight Auger, Direct Push, Mud Rotary, Drive Casing

Notes:

Surface elevation is an approximate value obtained from Google Earth data.

Logger: Colton Bickerstaff | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

FOLK FEDERAL #002-DTW.GPJ \ 3-13-24 \ \ TT_AUSTIN_GEOTECH_WELL3 ' '2015 TT TEMPLATE DECEMBER WELL.GDT '

OCD Waterbodies

3/12/2024, 10:41:49 AM

OSE Streams

1:9,028

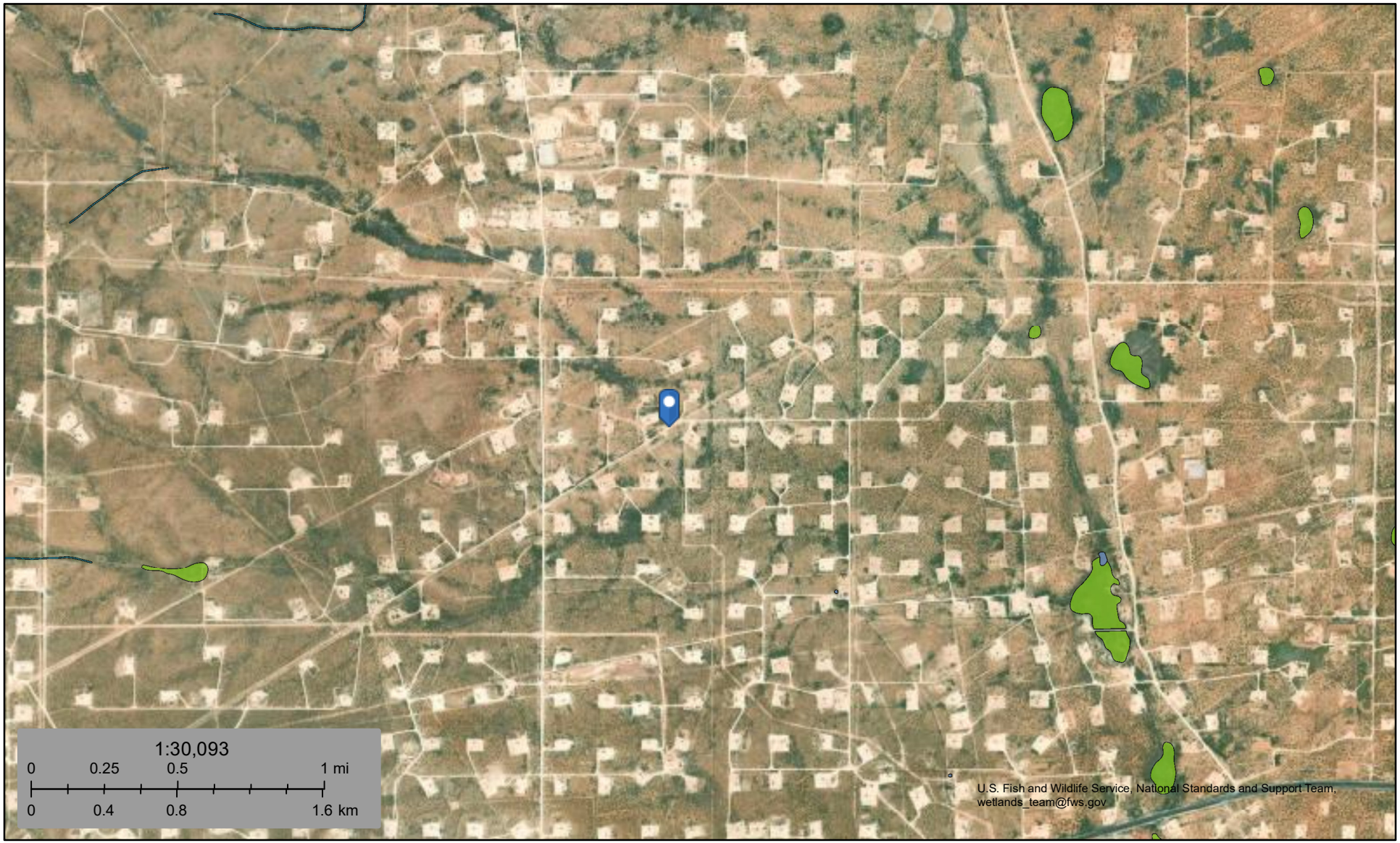
0 0.07 0.15 0.3 mi

0 0.15 0.3 0.6 km

Esri, HERE, Garmin, iPC, Maxar, NM OSE

U.S. Fish and Wildlife Service
National Wetlands Inventory

National Wetland Inventory Map



March 12, 2024

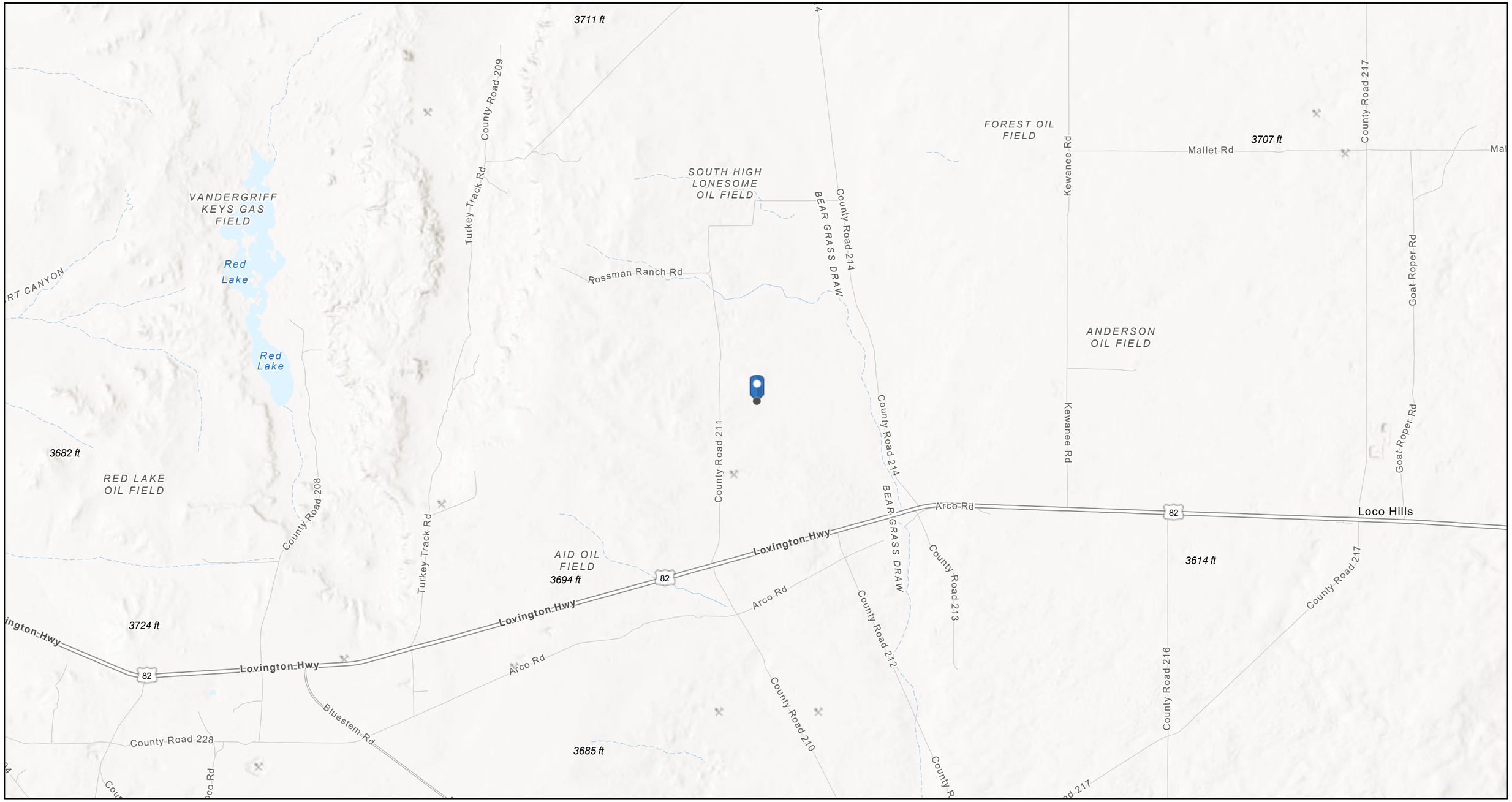
Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Active Mines in New Mexico



3/12/2024, 10:50:19 AM

1:72,224

Registered Mines

- Aggregate, Stone etc.
- Aggregate, Stone etc.
- Aggregate, Stone etc.

0 0.75 1.5 3 mi

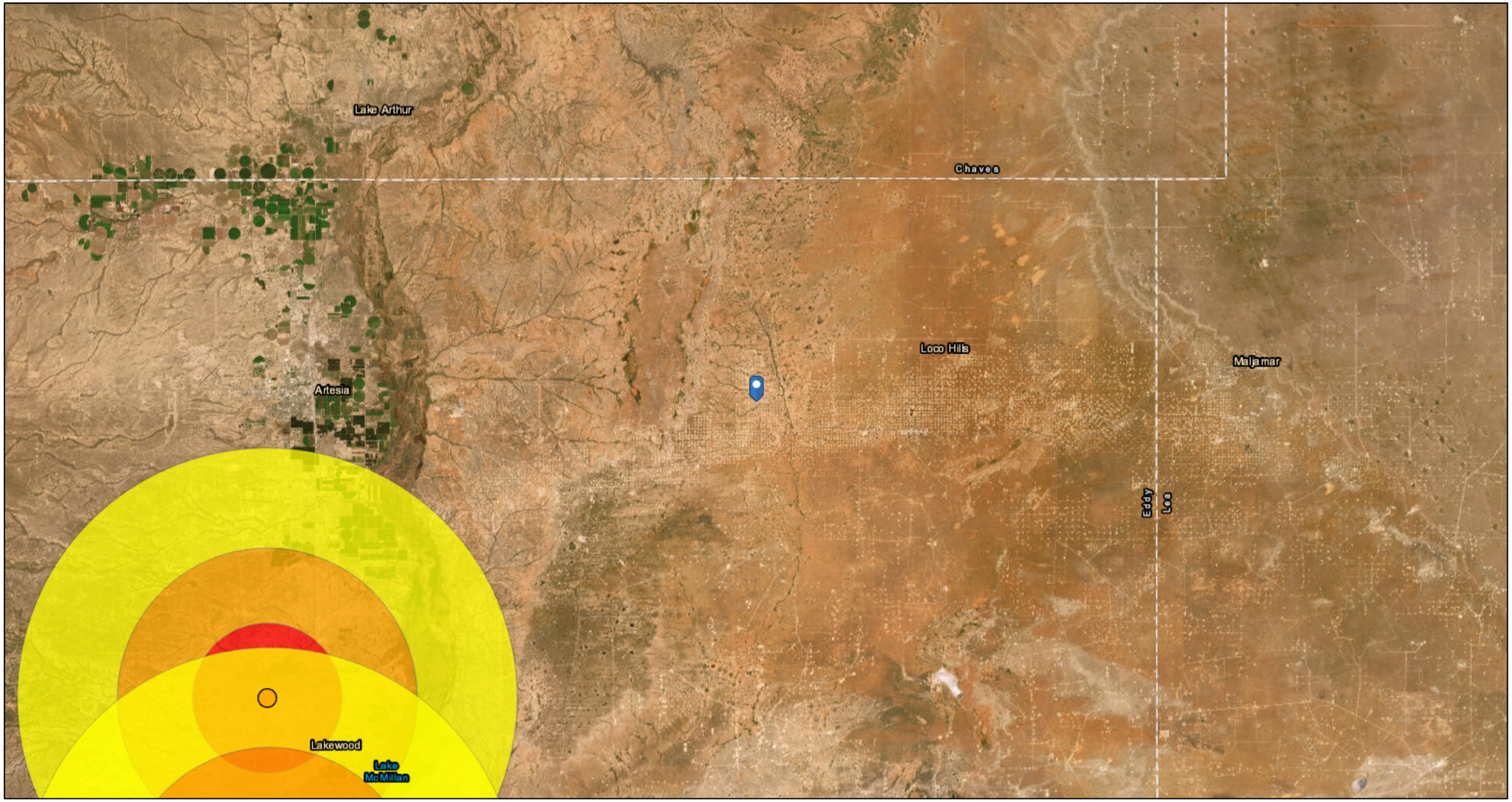
0 1 2 4 km

Texas Parks & Wildlife, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS, Esri, NASA, NGA, USGS, FEMA

EMNRD MMD GIS Coordinator

NM Energy, Minerals and Natural Resources Department (http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=1b5e577974664d689b47790897ca2795)

OCD Seismicity



3/12/2024, 10:43:59 AM

1:288,895

Seismic Response 2.5 to 2.9
- 6 mi.
- 10 mi.

Seismic Response 3.0 to 3.4
- 3 mi.
- 6 mi.
- 10 mi.

M2.5+ Earthquakes (2021+)
- 3.0 - 3.4

0 3 6 12 mi
0 4.75 9.5 19 km

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

OCD Karst Occurrence Potential

3/12/2024, 10:45:00 AM

Karst Occurrence Potential

- High
- Medium
- Low

1:18,056

0 0.17 0.35 0.7 mi

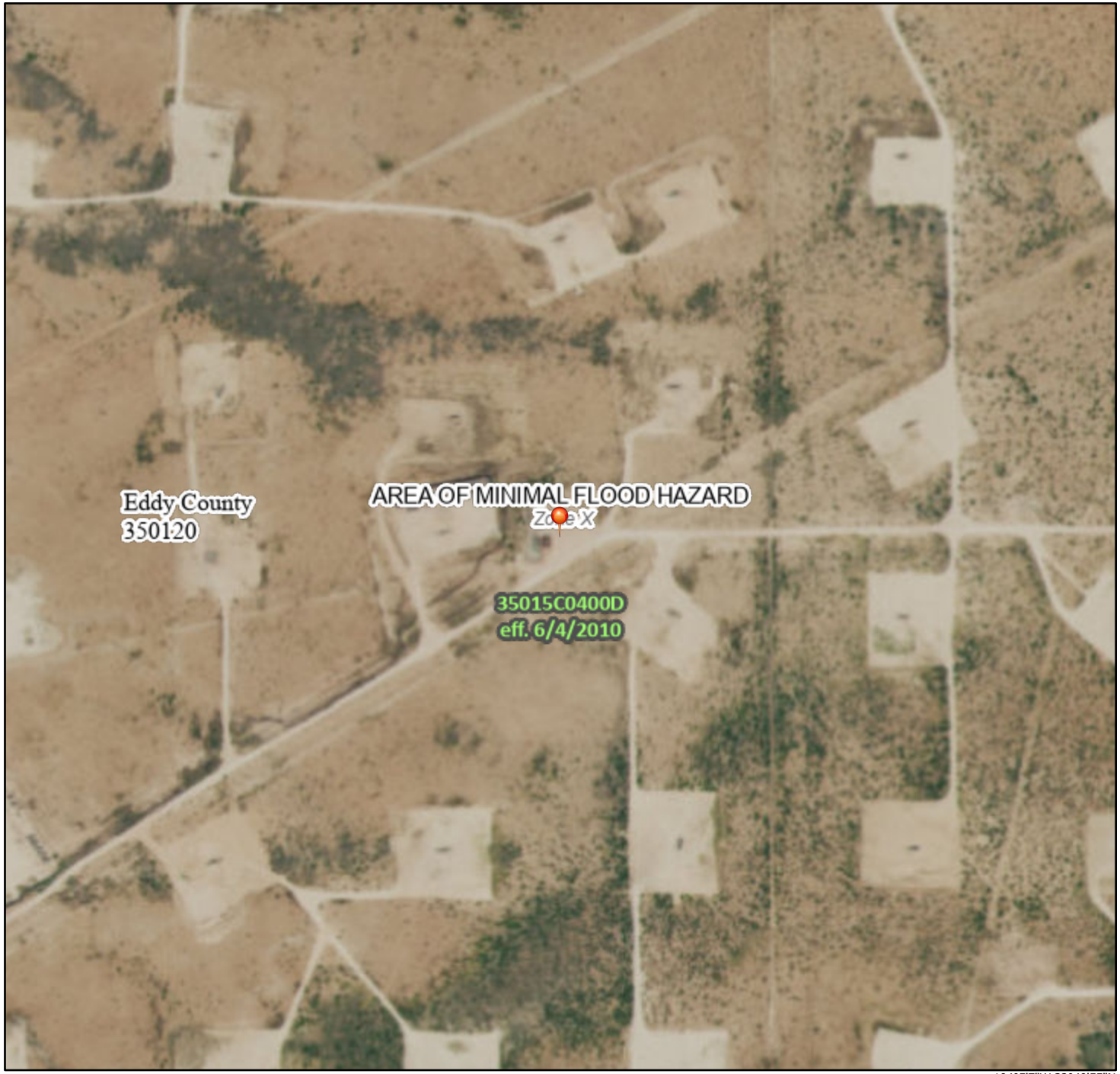
0 0.3 0.6 1.2 km

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

National Flood Hazard Layer FIRMette

FEMA

104°5'45"W 32°50'25"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

104°5'7"W 32°49'55"N

Basemap Imagery Source: USGS National Map 2023

Legend

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

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/12/2024 at 11:46 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

APPENDIX D
Laboratory Analytical Data

Analytical Report 555002

for

Tetra Tech- Midland

Project Manager: Ike Tavarez

Concho-Folk Federal Tank Battery

212C-MD-00679

15-JUN-17

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

15-JUN-17

Project Manager: **Ike Tavarez**
Tetra Tech- Midland
4000 N. Big Spring Suite 401
Midland, TX 79705

Reference: XENCO Report No(s): **555002**
Concho-Folk Federal Tank Battery
Project Address: Eddy Co NM

Ike Tavarez:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 555002. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 555002 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 555002

Tetra Tech- Midland, Midland, TX

Concho-Folk Federal Tank Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP #1 (0-6") 6" BEB	S	06-07-17 00:00		555002-001
SP #2 (0-4") 6" BEB	S	06-07-17 00:00		555002-002
SP #3 (0-4") 6" BEB	S	06-07-17 00:00		555002-003
SP #4 (0-4") 6" BEB	S	06-07-17 00:00		555002-004
SP #5 (0-4") 6" BEB	S	06-07-17 00:00		555002-005
SP #6 (0-6") 6" BEB	S	06-07-17 00:00		555002-006
SP #7 (0-6") 6" BEB	S	06-07-17 00:00		555002-007

CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Concho-Folk Federal Tank Battery

Project ID: *212C-MD-00679*
Work Order Number(s): *555002*

Report Date: *15-JUN-17*
Date Received: *06/08/2017*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3019540 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3019644 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate was above quality control limits.
Samples in the analytical batch are: 555002-003, -005

Lab Sample ID 555002-005 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 555002-003, -005.
The Laboratory Control Sample for Toluene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3019769 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 555002

Tetra Tech- Midland, Midland, TX

Project Name: Concho-Folk Federal Tank Battery

Project Id: 212C-MD-00679
Contact: Ike Tavarez
Project Location: Eddy Co NM

Date Received in Lab: Thu Jun-08-17 10:16 am
Report Date: 15-JUN-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	555002-001		555002-002		555002-003		555002-004		555002-005		555002-006	
	Field Id:	SP #1 (0-6") 6" BEB		SP #2 (0-4") 6" BEB		SP #3 (0-4") 6" BEB		SP #4 (0-4") 6" BEB		SP #5 (0-4") 6" BEB		SP #6 (0-6") 6" BEB	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-07-17 00:00		Jun-07-17 00:00		Jun-07-17 00:00		Jun-07-17 00:00		Jun-07-17 00:00		Jun-07-17 00:00	
BTEX by EPA 8021B	***Extracted:***	Jun-12-17 11:00		Jun-12-17 11:00		Jun-13-17 07:00		Jun-13-17 15:00		Jun-13-17 07:00		Jun-13-17 15:00	
	Analyzed:	Jun-12-17 20:27		Jun-12-17 20:11		Jun-13-17 08:55		Jun-14-17 10:37		Jun-13-17 09:11		Jun-14-17 11:09	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00372	0.00372	<0.00356	0.00356	<0.00380	0.00380	0.404	0.398	<0.00389	0.00389	7.69	1.00
Toluene		<0.00372	0.00372	<0.00356	0.00356	<0.00380	0.00380	1.01	0.398	<0.00389	0.00389	59.2	1.00
Ethylbenzene		<0.00372	0.00372	0.00731	0.00356	0.0428	0.00380	25.6	0.398	<0.00389	0.00389	93.4	1.00
m,p-Xylenes		<0.00743	0.00743	0.00772	0.00712	0.0438	0.00760	39.8	0.797	<0.00778	0.00778	227	2.01
o-Xylene		<0.00372	0.00372	<0.00356	0.00356	<0.00380	0.00380	38.4	0.398	<0.00389	0.00389	117	1.00
Total Xylenes		<0.00372	0.00372	0.00772	0.00356	0.0438	0.00380	78.2	0.398	<0.00389	0.00389	344	1.00
Total BTEX		<0.00372	0.00372	0.0150	0.00356	0.0866	0.00380	105	0.398	<0.00389	0.00389	504	1.00
TPH By SW8015 Mod	***Extracted:***	Jun-09-17 18:00		Jun-09-17 18:00		Jun-09-17 18:00		Jun-09-17 18:00		Jun-09-17 18:00		Jun-09-17 18:00	
	Analyzed:	Jun-10-17 16:44		Jun-10-17 17:45		Jun-10-17 18:05		Jun-10-17 18:26		Jun-10-17 18:47		Jun-10-17 19:07	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons		379	74.9	349	74.7	501	74.8	1280	75.0	215	74.8	6410	74.9
Diesel Range Organics		3350	74.9	4840	74.7	4810	74.8	4520	75.0	2900	74.8	7520	74.9
Oil Range Hydrocarbons		355	74.9	533	74.7	504	74.8	363	75.0	283	74.8	952	74.9
Total TPH		4080	74.9	5720	74.7	5820	74.8	6160	75.0	3400	74.8	14900	74.9

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Final 1.000

Certificate of Analysis Summary 555002

Tetra Tech- Midland, Midland, TX

Project Name: Concho-Folk Federal Tank Battery

Project Id: 212C-MD-00679
Contact: Ike Tavarez
Project Location: Eddy Co NM

Date Received in Lab: Thu Jun-08-17 10:16 am
Report Date: 15-JUN-17
Project Manager: Kelsey Brooks

Analysis Requested								
	Lab Id:	555002-007						
	Field Id:	SP #7 (0-6") 6" BEB						
	Depth:							
	Matrix:	SOIL						
	Sampled:	Jun-07-17 00:00						
BTEX by EPA 8021B	***Extracted:***	Jun-13-17 15:00						
	Analyzed:	Jun-14-17 10:53						
	Units/RL:	mg/kg	RL					
Benzene		7.96	1.01					
Toluene		99.3	1.01					
Ethylbenzene		111	1.01					
m,p-Xylenes		140	2.02					
o-Xylene		62.8	1.01					
Total Xylenes		203	1.01					
Total BTEX		421	1.01					
TPH By SW8015 Mod	***Extracted:***	Jun-09-17 18:00						
	Analyzed:	Jun-10-17 19:27						
	Units/RL:	mg/kg	RL					
Gasoline Range Hydrocarbons		4450	74.9					
Diesel Range Organics		5330	74.9					
Oil Range Hydrocarbons		607	74.9					
Total TPH		10400	74.9					

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: Concho-Folk Federal Tank Battery

Work Orders : 555002,

Project ID: 212C-MD-00679

Lab Batch #: 3019459 **Sample:** 555002-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/17 16:44

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.8	99.8	98	70-135	
o-Terphenyl	48.4	49.9	97	70-135	

Lab Batch #: 3019459 **Sample:** 555002-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/17 17:45

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	99.6	102	70-135	
o-Terphenyl	47.3	49.8	95	70-135	

Lab Batch #: 3019459 **Sample:** 555002-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/17 18:05

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	99.7	100	70-135	
o-Terphenyl	47.7	49.9	96	70-135	

Lab Batch #: 3019459 **Sample:** 555002-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/17 18:26

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	100	112	70-135	
o-Terphenyl	58.1	50.0	116	70-135	

Lab Batch #: 3019459 **Sample:** 555002-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/17 18:47

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.7	103	70-135	
o-Terphenyl	51.2	49.9	103	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Concho-Folk Federal Tank Battery

Work Orders : 555002,

Project ID: 212C-MD-00679

Lab Batch #: 3019459 **Sample:** 555002-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/17 19:07

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	99.8	109	70-135	
o-Terphenyl	48.0	49.9	96	70-135	

Lab Batch #: 3019459 **Sample:** 555002-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/17 19:27

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.8	108	70-135	
o-Terphenyl	50.8	49.9	102	70-135	

Lab Batch #: 3019540 **Sample:** 555002-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/12/17 20:11

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0308	0.0300	103	80-120	

Lab Batch #: 3019540 **Sample:** 555002-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/12/17 20:27

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 3019644 **Sample:** 555002-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/17 08:55

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	80-120	
4-Bromofluorobenzene	0.0349	0.0300	116	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Concho-Folk Federal Tank Battery

Work Orders : 555002,

Project ID: 212C-MD-00679

Lab Batch #: 3019644 **Sample:** 555002-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/17 09:11

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0273	0.0300	91	80-120	

Lab Batch #: 3019769 **Sample:** 555002-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/17 10:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0244	0.0300	81	80-120	
4-Bromofluorobenzene	0.0297	0.0300	99	80-120	

Lab Batch #: 3019769 **Sample:** 555002-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/17 10:53

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0297	0.0300	99	80-120	
4-Bromofluorobenzene	0.0349	0.0300	116	80-120	

Lab Batch #: 3019769 **Sample:** 555002-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/17 11:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0343	0.0300	114	80-120	
4-Bromofluorobenzene	0.0340	0.0300	113	80-120	

Lab Batch #: 3019459 **Sample:** 725909-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/10/17 15:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	57.2	50.0	114	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Concho-Folk Federal Tank Battery

Work Orders : 555002,

Project ID: 212C-MD-00679

Lab Batch #: 3019540 **Sample:** 725998-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/12/17 15:11

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

Lab Batch #: 3019644 **Sample:** 726036-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/13/17 08:39

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0256	0.0300	85	80-120	
4-Bromofluorobenzene	0.0282	0.0300	94	80-120	

Lab Batch #: 3019769 **Sample:** 726090-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/14/17 01:16

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 3019459 **Sample:** 725909-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/10/17 15:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	49.4	50.0	99	70-135	

Lab Batch #: 3019540 **Sample:** 725998-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/12/17 13:09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Concho-Folk Federal Tank Battery

Work Orders : 555002,

Project ID: 212C-MD-00679

Lab Batch #: 3019644 **Sample:** 726036-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/13/17 07:01

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0326	0.0300	109	80-120	

Lab Batch #: 3019769 **Sample:** 726090-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/13/17 23:40

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 3019459 **Sample:** 725909-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/10/17 16:22

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	50.9	50.0	102	70-135	

Lab Batch #: 3019540 **Sample:** 725998-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/12/17 13:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 3019644 **Sample:** 726036-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/13/17 07:17

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Concho-Folk Federal Tank Battery

Work Orders : 555002,

Project ID: 212C-MD-00679

Lab Batch #: 3019769 **Sample:** 726090-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/13/17 23:56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 3019459 **Sample:** 555002-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/17 17:04

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	99.7	116	70-135	
o-Terphenyl	56.7	49.9	114	70-135	

Lab Batch #: 3019540 **Sample:** 554743-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/12/17 14:05

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0327	0.0300	109	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

Lab Batch #: 3019644 **Sample:** 555002-005 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/17 07:34

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0347	0.0300	116	80-120	
4-Bromofluorobenzene	0.0344	0.0300	115	80-120	

Lab Batch #: 3019769 **Sample:** 555092-011 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/17 00:12

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0250	0.0300	83	80-120	
4-Bromofluorobenzene	0.0332	0.0300	111	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Concho-Folk Federal Tank Battery

Work Orders : 555002,

Project ID: 212C-MD-00679

Lab Batch #: 3019459 **Sample:** 555002-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/10/17 17:24

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	99.8	115	70-135	
o-Terphenyl	57.8	49.9	116	70-135	

Lab Batch #: 3019540 **Sample:** 554743-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/12/17 14:21

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0317	0.0300	106	80-120	
4-Bromofluorobenzene	0.0344	0.0300	115	80-120	

Lab Batch #: 3019644 **Sample:** 555002-005 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/17 07:49

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

Lab Batch #: 3019769 **Sample:** 555092-011 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/17 00:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene	0.0357	0.0300	119	80-120	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Concho-Folk Federal Tank Battery

Work Order #: 555002 **Project ID:** 212C-MD-00679

Analyst: ALJ **Date Prepared:** 06/12/2017 **Date Analyzed:** 06/12/2017

Lab Batch ID: 3019540 **Sample:** 725998-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00200	0.100	0.0880	88	0.101	0.0854	85	3	70-130	35	
Toluene	<0.00200	0.100	0.0833	83	0.101	0.0812	80	3	70-130	35	
Ethylbenzene	<0.00200	0.100	0.0931	93	0.101	0.0905	90	3	71-129	35	
m,p-Xylenes	<0.00401	0.200	0.163	82	0.201	0.159	79	2	70-135	35	
o-Xylene	<0.00200	0.100	0.0877	88	0.101	0.0863	85	2	71-133	35	

Analyst: ALJ **Date Prepared:** 06/13/2017 **Date Analyzed:** 06/13/2017

Lab Batch ID: 3019644 **Sample:** 726036-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00200	0.0998	0.0974	98	0.101	0.0885	88	10	70-130	35	
Toluene	<0.00200	0.0998	0.0962	96	0.101	0.0839	83	14	70-130	35	
Ethylbenzene	<0.00200	0.0998	0.108	108	0.101	0.0972	96	11	71-129	35	
m,p-Xylenes	<0.00399	0.200	0.191	96	0.201	0.169	84	12	70-135	35	
o-Xylene	<0.00200	0.0998	0.101	101	0.101	0.0903	89	11	71-133	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: Concho-Folk Federal Tank Battery

Work Order #: 555002 **Project ID:** 212C-MD-00679

Analyst: ALJ **Date Prepared:** 06/13/2017 **Date Analyzed:** 06/13/2017

Lab Batch ID: 3019769 **Sample:** 726090-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00200	0.0998	0.0856	86	0.100	0.0795	80	7	70-130	35	
Toluene	<0.00200	0.0998	0.0813	81	0.100	0.0815	82	0	70-130	35	
Ethylbenzene	<0.00200	0.0998	0.0916	92	0.100	0.0845	85	8	71-129	35	
m,p-Xylenes	<0.00399	0.200	0.158	79	0.200	0.145	73	9	70-135	35	
o-Xylene	<0.00200	0.0998	0.0858	86	0.100	0.0821	82	4	71-133	35	

Analyst: ARM **Date Prepared:** 06/09/2017 **Date Analyzed:** 06/10/2017

Lab Batch ID: 3019459 **Sample:** 725909-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	<15.0	1000	962	96	1000	990	99	3	70-135	35	
Diesel Range Organics	<15.0	1000	941	94	1000	979	98	4	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Concho-Folk Federal Tank Battery

Work Order # : 555002 **Project ID:** 212C-MD-00679

Lab Batch ID: 3019540 **QC- Sample ID:** 554743-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/12/2017 **Date Prepared:** 06/12/2017 **Analyst:** ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00336	0.168	0.104	62	0.173	0.0905	52	14	70-130	35	X
Toluene	<0.00336	0.168	0.0817	49	0.173	0.0767	44	6	70-130	35	X
Ethylbenzene	0.00875	0.168	0.0818	43	0.173	0.0755	39	8	71-129	35	X
m,p-Xylenes	0.0116	0.336	0.132	36	0.346	0.122	32	8	70-135	35	X
o-Xylene	<0.00336	0.168	0.0811	48	0.173	0.0846	49	4	71-133	35	X

Lab Batch ID: 3019644 **QC- Sample ID:** 555002-005 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/13/2017 **Date Prepared:** 06/13/2017 **Analyst:** ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00380	0.190	0.148	78	0.186	0.146	78	1	70-130	35	
Toluene	<0.00380	0.190	0.117	62	0.186	0.109	59	7	70-130	35	X
Ethylbenzene	<0.00380	0.190	0.116	61	0.186	0.0977	53	17	71-129	35	X
m,p-Xylenes	<0.00760	0.380	0.190	50	0.372	0.154	41	21	70-135	35	X
o-Xylene	<0.00380	0.190	0.128	67	0.186	0.0843	45	41	71-133	35	XF

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: Concho-Folk Federal Tank Battery

Work Order # : 555002 **Project ID:** 212C-MD-00679

Lab Batch ID: 3019769 **QC- Sample ID:** 555092-011 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/14/2017 **Date Prepared:** 06/13/2017 **Analyst:** ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00202	0.101	0.0518	51	0.101	0.0436	43	17	70-130	35	X
Toluene	<0.00202	0.101	0.0452	45	0.101	0.0568	56	23	70-130	35	X
Ethylbenzene	<0.00202	0.101	0.0385	38	0.101	0.0399	40	4	71-129	35	X
m,p-Xylenes	<0.00404	0.202	0.0603	30	0.203	0.0707	35	16	70-135	35	X
o-Xylene	<0.00202	0.101	0.0338	33	0.101	0.0519	51	42	71-133	35	XF

Lab Batch ID: 3019459 **QC- Sample ID:** 555002-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/10/2017 **Date Prepared:** 06/09/2017 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	379	997	1470	109	998	1440	106	2	70-135	35	
Diesel Range Organics	3350	997	4440	109	998	4450	110	0	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Analysis Request of Chain of Custody Record

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

555002

PAGE: 1 OF: 1

CLIENT NAME: Concho

SITE MANAGER: Ike Tavarez

PROJECT NO.: 212C-MD-00679

PROJECT NAME: Folk Federal Tank Battery
Eddy County, New Mexico

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
	6/7/17		S		X	SP#1 (0-6") 6"BEB	1	N			X		X	X														
						SP# 2 (0-4") 6"BEB	1	N			X		X	X														
						SP# 3 (0-4") 6"BEB	1	N			X		X	X														
						SP# 4 (0-4") 6"BEB	1	N			X		X	X														
						SP# 5 (0-4") 6"BEB	1	N			X		X	X														
						SP# 6 (0-6") 6"BEB	1	N			X		X	X														
						SP# 7 (0-6") 6"BEB	1	N			X		X	X														

Temp: 5.7 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 5.5

RELINQUISHED BY: (Signature) Mike Cannona Date: 6-8-17 Time:
RECEIVED BY: (Signature) Maraja Date: 6/8/17 Time: 10:16
SAMPLED BY: (Print & Initial) MC Date: 6-7-17 Time:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS
AIRBILL #:
OTHER:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:

RECEIVING LABORATORY: XENCO
ADDRESS:
CITY: MIDLAND STATE: TX ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: TIME:

TETRA TECH CONTACT PERSON: Ike Tavarez
Results by:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED:
REMARKS:

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 06/08/2017 10:16:00 AM

Work Order #: 555002

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	5.5
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seal present on shipping container/ cooler?	**N/A**
#5 *Custody Seals intact on shipping container/ cooler?	**N/A**
#6 Custody Seals intact on sample bottles?	**N/A**
#7 *Custody Seals Signed and dated?	**N/A**
#8 *Chain of Custody present?	**Yes**
#9 Sample instructions complete on Chain of Custody?	**Yes**
#10 Any missing/extra samples?	**No**
#11 Chain of Custody signed when relinquished/ received?	**Yes**
#12 Chain of Custody agrees with sample label(s)?	**Yes**
#13 Container label(s) legible and intact?	**Yes**
#14 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#15 Samples in proper container/ bottle?	**Yes**
#16 Samples properly preserved?	**Yes**
#17 Sample container(s) intact?	**Yes**
#18 Sufficient sample amount for indicated test(s)?	**Yes**
#19 All samples received within hold time?	**Yes**
#20 Subcontract of sample(s)?	**N/A**
#21 VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Jessica Kramer Date: 06/09/2017
Jessica Kramer

Checklist reviewed by: Kelsey Brooks Date: 06/09/2017
Kelsey Brooks

Analytical Report 571930

for

Tetra Tech- Midland

Project Manager: Ike Tavarez

Folk Federal Tank Battery

212C-MD-00679.02

28-DEC-17

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

28-DEC-17

Project Manager: **Ike Tavarez**
Tetra Tech- Midland
4000 N. Big Spring Suite 401
Midland, TX 79705

Reference: XENCO Report No(s): **571930**
Folk Federal Tank Battery
Project Address: Eddy Co, NM

Ike Tavarez:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 571930. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 571930 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Mike Kimmel
Client Services Manager

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Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 571930

Tetra Tech- Midland, Midland, TX

Folk Federal Tank Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-1 0-1	S	12-20-17 00:00		571930-001
BH-1 2-3	S	12-20-17 00:00		571930-002
BH-1 4-5	S	12-20-17 00:00		571930-003
BH-1 6-7	S	12-20-17 00:00		Not Analyzed
BH-1 9-10	S	12-20-17 00:00		Not Analyzed
BH-1 14-15	S	12-20-17 00:00		Not Analyzed
BH-1 19-20	S	12-20-17 00:00		Not Analyzed

CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Folk Federal Tank Battery

Project ID: *212C-MD-00679.02*
Work Order Number(s): *571930*

Report Date: *28-DEC-17*
Date Received: *12/21/2017*

Sample receipt non conformances and comments:

12/28/17: Revision to project name.

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3036802 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 571930

Tetra Tech- Midland, Midland, TX

Project Name: Folk Federal Tank Battery

Project Id: 212C-MD-00679.02
Contact: Ike Tavarez
Project Location: Eddy Co, NM

Date Received in Lab: Thu Dec-21-17 02:48 pm
Report Date: 28-DEC-17
Project Manager: Kelsey Brooks

Analysis Requested									
	Lab Id:	571930-001		571930-002		571930-003				
	Field Id:	BH-1 0-1		BH-1 2-3		BH-1 4-5				
	Depth:									
	Matrix:	SOIL		SOIL		SOIL				
	Sampled:	Dec-20-17 00:00		Dec-20-17 00:00		Dec-20-17 00:00				
BTEX by EPA 8021B	***Extracted:***	Dec-22-17 09:30		Dec-22-17 09:30		Dec-22-17 09:30				
	Analyzed:	Dec-22-17 14:38		Dec-22-17 14:57		Dec-22-17 15:15				
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Benzene		<0.00199	0.00199	<0.00198	0.00198	<0.00201	0.00201			
Toluene		<0.00199	0.00199	<0.00198	0.00198	<0.00201	0.00201			
Ethylbenzene		<0.00199	0.00199	<0.00198	0.00198	<0.00201	0.00201			
m,p-Xylenes		<0.00398	0.00398	<0.00396	0.00396	<0.00402	0.00402			
o-Xylene		<0.00199	0.00199	<0.00198	0.00198	<0.00201	0.00201			
Total Xylenes		<0.00199	0.00199	<0.00198	0.00198	<0.00201	0.00201			
Total BTEX		<0.00199	0.00199	<0.00198	0.00198	<0.00201	0.00201			
TPH By SW8015 Mod	***Extracted:***	Dec-21-17 16:00		Dec-21-17 16:00		Dec-21-17 16:00				
	Analyzed:	Dec-22-17 05:13		Dec-22-17 05:33		Dec-22-17 05:53				
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0			
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0			
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	<15.0	15.0			
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0			

Mike Kimmel
Client Services Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
1211 W Florida Ave, Midland, TX 79701	(432) 563-1800	(432) 563-1713
2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282	(602) 437-0330	

Form 2 - Surrogate Recoveries

Project Name: Folk Federal Tank Battery

Work Orders : 571930, 571930 **Project ID:** 212C-MD-00679.02

Lab Batch #: 3036677 **Sample:** 571930-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/22/17 05:13

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.4	99.7	87	70-135	
o-Terphenyl	44.7	49.9	90	70-135	

Lab Batch #: 3036677 **Sample:** 571930-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/22/17 05:33

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.3	99.9	85	70-135	
o-Terphenyl	43.5	50.0	87	70-135	

Lab Batch #: 3036677 **Sample:** 571930-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/22/17 05:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.7	99.8	87	70-135	
o-Terphenyl	44.3	49.9	89	70-135	

Lab Batch #: 3036802 **Sample:** 571930-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/22/17 14:38

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0272	0.0300	91	80-120	
4-Bromofluorobenzene	0.0265	0.0300	88	80-120	

Lab Batch #: 3036802 **Sample:** 571930-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/22/17 14:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0271	0.0300	90	80-120	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Folk Federal Tank Battery

Work Orders : 571930, 571930 **Project ID:** 212C-MD-00679.02

Lab Batch #: 3036802 **Sample:** 571930-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/22/17 15:15

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0256	0.0300	85	80-120	

Lab Batch #: 3036677 **Sample:** 7636450-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 12/22/17 02:51

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.3	100	80	70-135	
o-Terphenyl	41.5	50.0	83	70-135	

Lab Batch #: 3036802 **Sample:** 7636560-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 12/22/17 13:03

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0252	0.0300	84	80-120	

Lab Batch #: 3036677 **Sample:** 7636450-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 12/22/17 03:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.3	100	77	70-135	
o-Terphenyl	40.7	50.0	81	70-135	

Lab Batch #: 3036802 **Sample:** 7636560-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 12/22/17 11:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Folk Federal Tank Battery

Work Orders : 571930, 571930 **Project ID:** 212C-MD-00679.02

Lab Batch #: 3036677 **Sample:** 7636450-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 12/22/17 03:32

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.2	100	79	70-135	
o-Terphenyl	41.8	50.0	84	70-135	

Lab Batch #: 3036802 **Sample:** 7636560-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 12/22/17 11:28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0284	0.0300	95	80-120	

Lab Batch #: 3036677 **Sample:** 571800-013 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/22/17 04:14

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.4	99.8	75	70-135	
o-Terphenyl	40.5	49.9	81	70-135	

Lab Batch #: 3036802 **Sample:** 571876-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/22/17 11:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0313	0.0300	104	80-120	
4-Bromofluorobenzene	0.0329	0.0300	110	80-120	

Lab Batch #: 3036677 **Sample:** 571800-013 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/22/17 04:34

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.6	99.9	83	70-135	
o-Terphenyl	43.6	50.0	87	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Folk Federal Tank Battery

Work Orders : 571930, 571930 **Project ID:** 212C-MD-00679.02

Lab Batch #: 3036802 **Sample:** 571876-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/22/17 12:06

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0322	0.0300	107	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Folk Federal Tank Battery

Work Order #: 571930, 571930 **Project ID:** 212C-MD-00679.02

Analyst: ALJ **Date Prepared:** 12/22/2017 **Date Analyzed:** 12/22/2017

Lab Batch ID: 3036802 **Sample:** 7636560-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00198	0.0990	0.0915	92	0.0994	0.0894	90	2	70-130	35	
Toluene	<0.00198	0.0990	0.0852	86	0.0994	0.0831	84	2	70-130	35	
Ethylbenzene	<0.00198	0.0990	0.0925	93	0.0994	0.0913	92	1	71-129	35	
m,p-Xylenes	<0.00396	0.198	0.182	92	0.199	0.180	90	1	70-135	35	
o-Xylene	<0.00198	0.0990	0.0851	86	0.0994	0.0849	85	0	71-133	35	

Analyst: ARM **Date Prepared:** 12/21/2017 **Date Analyzed:** 12/22/2017

Lab Batch ID: 3036677 **Sample:** 7636450-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	813	81	1000	851	85	5	70-135	35	
Diesel Range Organics (DRO)	<15.0	1000	845	85	1000	866	87	2	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Folk Federal Tank Battery

Work Order # : 571930 **Project ID:** 212C-MD-00679.02

Lab Batch ID: 3036802 **QC- Sample ID:** 571876-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 12/22/2017 **Date Prepared:** 12/22/2017 **Analyst:** ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00198	0.0990	0.0745	75	0.0994	0.0688	69	8	70-130	35	X
Toluene	<0.00198	0.0990	0.0674	68	0.0994	0.0613	62	9	70-130	35	X
Ethylbenzene	<0.00198	0.0990	0.0717	72	0.0994	0.0652	66	9	71-129	35	X
m,p-Xylenes	<0.00396	0.198	0.141	71	0.199	0.128	64	10	70-135	35	X
o-Xylene	<0.00198	0.0990	0.0666	67	0.0994	0.0614	62	8	71-133	35	X

Lab Batch ID: 3036677 **QC- Sample ID:** 571800-013 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 12/22/2017 **Date Prepared:** 12/21/2017 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	998	823	82	999	830	83	1	70-135	35	
Diesel Range Organics (DRO)	<15.0	998	851	85	999	853	85	0	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Analysis Request of Chain of Custody Record

Page 1 of 1

Tetra Tech, Inc.

4000 N. Big Spring Street, Ste
401 Midland,Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

571930

Client Name: COG

Site Manager: Ike Tavarez

Project Name: Folk Federal Tank Battery

Project Location: (county, state) Eddy Co. NM

Project #: 212C-MD-00079.02

Invoice to: COG

Receiving Laboratory: Xenco

Sampler Signature:

Comments: Run deeper samples if benzene exceeds 10 mg/kg, total BTEX exceeds 50 or TPH exceeds 1,000 mg/kg

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C
	BH-1 0-1	12/20/17			X			X	1		X	X	X	
	" 2-3								1		X	X	X	
	" 4-5								1		X	X	X	
	" 6-7								1					
	" 9-10								1					
	" 14-15								1					
	" 19-20								1					

ANALYSIS REQUEST
(Circle or Specify Method No.)

Total Metals Ag As Ba Cd Cr Pb Se Hg
TCLP Metals Ag As Ba Cd Cr Pb Se Hg
TCLP Volatiles
TCLP Semi Volatiles
RCI
GC/MS Vol. 8260B / 624
GC/MS Semi. Vol. 8270C/625
PCB's 8082 / 608
NORM
PLM (Asbestos)
Chloride
Chloride Sulfate TDS
General Water Chemistry (see attached list)
Anion/Cation Balance
Hold

Relinquished by: Date: 12/21/17 Time: 1448
Received by: Date: Time:

Relinquished by: Date: Time:
Received by: Date: Time:

Relinquished by: Date: Time:
Received by: Date: Time:

LAB USE ONLY

Sample Temperature

(Circle) HAND

REMARKS:

RUSH: Same Day 24 hr 48 hr 72 hr

Temp: -0.8 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: -1.0

ORIGINAL COPY

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 12/21/2017 02:48:00 PM

Work Order #: 571930

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	-1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**No**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**No**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Shawnee Smith Date: 12/21/2017

Shawnee Smith

Checklist reviewed by: Mike Kimmel Date: 12/27/2017

Mike Kimmel

CARDINAL Laboratories

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

December 22, 2023

CHRISTIAN LLULL

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: FOLK FEDERAL TANK BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 12/20/23 12:41.

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.

Cardinal Laboratories is accreditated 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,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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:	12/20/2023	Sampling Date:	12/19/2023
Reported:	12/22/2023	Sampling Type:	Soil
Project Name:	FOLK FEDERAL TANK BATTERY	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03291	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: HA - 1 (0-1') (H236780-01)

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	12/22/2023	ND	2.47	124	2.00	1.34	
Toluene*	<0.050	0.050	12/22/2023	ND	2.27	113	2.00	0.471	
Ethylbenzene*	<0.050	0.050	12/22/2023	ND	2.33	116	2.00	1.39	
Total Xylenes*	<0.150	0.150	12/22/2023	ND	6.85	114	6.00	2.00	
Total BTEX	<0.300	0.300	12/22/2023	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	12/22/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/22/2023	ND	214	107	200	2.96	
DRO >C10-C28*	<10.0	10.0	12/22/2023	ND	218	109	200	1.21	
EXT DRO >C28-C36	<10.0	10.0	12/22/2023	ND					

Surrogate: 1-Chlorooctane *82.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *94.0 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	12/20/2023	Sampling Date:	12/19/2023
Reported:	12/22/2023	Sampling Type:	Soil
Project Name:	FOLK FEDERAL TANK BATTERY	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03291	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: HA - 2 (0-1') (H236780-02)

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	12/22/2023	ND	2.47	124	2.00	1.34	
Toluene*	<0.050	0.050	12/22/2023	ND	2.27	113	2.00	0.471	
Ethylbenzene*	<0.050	0.050	12/22/2023	ND	2.33	116	2.00	1.39	
Total Xylenes*	<0.150	0.150	12/22/2023	ND	6.85	114	6.00	2.00	
Total BTEX	<0.300	0.300	12/22/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *109 %* *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	12/22/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/22/2023	ND	214	107	200	2.96	
DRO >C10-C28*	<10.0	10.0	12/22/2023	ND	218	109	200	1.21	
EXT DRO >C28-C36	<10.0	10.0	12/22/2023	ND					

Surrogate: 1-Chlorooctane *89.4 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *102 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	12/20/2023	Sampling Date:	12/19/2023
Reported:	12/22/2023	Sampling Type:	Soil
Project Name:	FOLK FEDERAL TANK BATTERY	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03291	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: HA - 3 (0-1') (H236780-03)

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	12/22/2023	ND	2.47	124	2.00	1.34	
Toluene*	<0.050	0.050	12/22/2023	ND	2.27	113	2.00	0.471	
Ethylbenzene*	<0.050	0.050	12/22/2023	ND	2.33	116	2.00	1.39	
Total Xylenes*	<0.150	0.150	12/22/2023	ND	6.85	114	6.00	2.00	
Total BTEX	<0.300	0.300	12/22/2023	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/22/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/22/2023	ND	214	107	200	2.96	
DRO >C10-C28*	<10.0	10.0	12/22/2023	ND	218	109	200	1.21	
EXT DRO >C28-C36	<10.0	10.0	12/22/2023	ND					

Surrogate: 1-Chlorooctane *99.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *114 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	12/20/2023	Sampling Date:	12/19/2023
Reported:	12/22/2023	Sampling Type:	Soil
Project Name:	FOLK FEDERAL TANK BATTERY	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03291	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: HA - 4 (0-1') (H236780-04)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/22/2023	ND	2.47	124	2.00	1.34	
Toluene*	<0.050	0.050	12/22/2023	ND	2.27	113	2.00	0.471	
Ethylbenzene*	<0.050	0.050	12/22/2023	ND	2.33	116	2.00	1.39	
Total Xylenes*	<0.150	0.150	12/22/2023	ND	6.85	114	6.00	2.00	
Total BTEX	<0.300	0.300	12/22/2023	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/22/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/22/2023	ND	214	107	200	2.96	
DRO >C10-C28*	<10.0	10.0	12/22/2023	ND	218	109	200	1.21	
EXT DRO >C28-C36	**10.0**	10.0	12/22/2023	ND					

Surrogate: 1-Chlorooctane *110 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *127 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	12/20/2023	Sampling Date:	12/19/2023
Reported:	12/22/2023	Sampling Type:	Soil
Project Name:	FOLK FEDERAL TANK BATTERY	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03291	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: HA - 5 (0-1') (H236780-05)

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	12/22/2023	ND	2.47	124	2.00	1.34	
Toluene*	<0.050	0.050	12/22/2023	ND	2.27	113	2.00	0.471	
Ethylbenzene*	<0.050	0.050	12/22/2023	ND	2.33	116	2.00	1.39	
Total Xylenes*	<0.150	0.150	12/22/2023	ND	6.85	114	6.00	2.00	
Total BTEX	<0.300	0.300	12/22/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.2 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	12/22/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/22/2023	ND	214	107	200	2.96	
DRO >C10-C28*	**22.7**	10.0	12/22/2023	ND	218	109	200	1.21	
EXT DRO >C28-C36	**17.0**	10.0	12/22/2023	ND					

Surrogate: 1-Chlorooctane *108 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *127 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	12/20/2023	Sampling Date:	12/20/2023
Reported:	12/22/2023	Sampling Type:	Soil
Project Name:	FOLK FEDERAL TANK BATTERY	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03291	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: T - 1 (0-0.5') (H236780-06)

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	12/22/2023	ND	2.47	124	2.00	1.34	
Toluene*	<0.050	0.050	12/22/2023	ND	2.27	113	2.00	0.471	
Ethylbenzene*	<0.050	0.050	12/22/2023	ND	2.33	116	2.00	1.39	
Total Xylenes*	<0.150	0.150	12/22/2023	ND	6.85	114	6.00	2.00	
Total BTEX	<0.300	0.300	12/22/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *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	12/22/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/21/2023	ND	197	98.6	200	2.66	
DRO >C10-C28*	**1440**	10.0	12/21/2023	ND	200	100	200	0.221	QM-07
EXT DRO >C28-C36	**732**	10.0	12/21/2023	ND					

Surrogate: 1-Chlorooctane *121 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *132 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	12/20/2023	Sampling Date:	12/20/2023
Reported:	12/22/2023	Sampling Type:	Soil
Project Name:	FOLK FEDERAL TANK BATTERY	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03291	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: T - 1 (0.5'-1') (H236780-07)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/21/2023	ND	2.40	120	2.00	3.09	
Toluene*	<0.050	0.050	12/21/2023	ND	2.25	112	2.00	2.33	
Ethylbenzene*	<0.050	0.050	12/21/2023	ND	2.30	115	2.00	3.23	
Total Xylenes*	<0.150	0.150	12/21/2023	ND	6.91	115	6.00	3.50	
Total BTEX	<0.300	0.300	12/21/2023	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	12/22/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/21/2023	ND	197	98.6	200	2.66	
DRO >C10-C28*	**1270**	10.0	12/21/2023	ND	200	100	200	0.221	
EXT DRO >C28-C36	**585**	10.0	12/21/2023	ND					

Surrogate: 1-Chlorooctane *127 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *140 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	12/20/2023	Sampling Date:	12/20/2023
Reported:	12/22/2023	Sampling Type:	Soil
Project Name:	FOLK FEDERAL TANK BATTERY	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03291	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: T - 1 (1'-1.5') (H236780-08)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/21/2023	ND	2.40	120	2.00	3.09	
Toluene*	<0.050	0.050	12/21/2023	ND	2.25	112	2.00	2.33	
Ethylbenzene*	<0.050	0.050	12/21/2023	ND	2.30	115	2.00	3.23	
Total Xylenes*	<0.150	0.150	12/21/2023	ND	6.91	115	6.00	3.50	
Total BTEX	<0.300	0.300	12/21/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	12/22/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/21/2023	ND	197	98.6	200	2.66	
DRO >C10-C28*	**656**	10.0	12/21/2023	ND	200	100	200	0.221	
EXT DRO >C28-C36	**377**	10.0	12/21/2023	ND					

Surrogate: 1-Chlorooctane *119 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *128 %* *49.1-148*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	12/20/2023	Sampling Date:	12/20/2023
Reported:	12/22/2023	Sampling Type:	Soil
Project Name:	FOLK FEDERAL TANK BATTERY	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03291	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: T - 1 (1.5'-2') (H236780-09)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/21/2023	ND	2.40	120	2.00	3.09	
Toluene*	<0.050	0.050	12/21/2023	ND	2.25	112	2.00	2.33	
Ethylbenzene*	<0.050	0.050	12/21/2023	ND	2.30	115	2.00	3.23	
Total Xylenes*	<0.150	0.150	12/21/2023	ND	6.91	115	6.00	3.50	
Total BTEX	<0.300	0.300	12/21/2023	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	12/22/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/21/2023	ND	197	98.6	200	2.66	
DRO >C10-C28*	**458**	10.0	12/21/2023	ND	200	100	200	0.221	
EXT DRO >C28-C36	**242**	10.0	12/21/2023	ND					

Surrogate: 1-Chlorooctane *105 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *108 %* *49.1-148*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	12/20/2023	Sampling Date:	12/20/2023
Reported:	12/22/2023	Sampling Type:	Soil
Project Name:	FOLK FEDERAL TANK BATTERY	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-03291	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: T - 1 (2'-2.25') (H236780-10)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/21/2023	ND	2.40	120	2.00	3.09	
Toluene*	<0.050	0.050	12/21/2023	ND	2.25	112	2.00	2.33	
Ethylbenzene*	<0.050	0.050	12/21/2023	ND	2.30	115	2.00	3.23	
Total Xylenes*	<0.150	0.150	12/21/2023	ND	6.91	115	6.00	3.50	
Total BTEX	<0.300	0.300	12/21/2023	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	12/22/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/21/2023	ND	197	98.6	200	2.66	
DRO >C10-C28*	**68.9**	10.0	12/21/2023	ND	200	100	200	0.221	
EXT DRO >C28-C36	**21.9**	10.0	12/21/2023	ND					

Surrogate: 1-Chlorooctane *94.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *90.5 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Tetra Tech				**BILL TO**	
Project Manager: Christian Llull				P.O. #:	
Address: 8911 Capital of Texas Hwy, Suite 2310				Company: Tetra Tech	
City: Austin	State: TX	Zip:		Attn: Christian Llul	
Phone #: (512)565-0190	Fax #:			Address: EMAIL	
Project #: 212C-MD-03291	Project Owner:	ConocoPhillips		City:	
Project Name: Folk Federal Tank Battery				State: Zip:	
Project Location: Eddy County, New Mexico				Phone #:	
Sampler Name: Colton Bickerstaff				Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	TPH 8015M	BTEX 8021B	Chloride SM4500Cl-B
H236780																	
1	HA-1 (0-1')	G	1			X					X		12/19/2023		X	X	X
2	HA-2 (0-1')	G	1			X					X		12/19/2023		X	X	X
3	HA-3 (0-1')	G	1			X					X		12/19/2023		X	X	X
4	HA-4 (0-1')	G	1			X					X		12/19/2023		X	X	X
5	HA-5 (0-1')	G	1			X					X		12/19/2023		X	X	X
6	T-1 (0-0.5')	G	1			X					X		12/20/2023		X	X	X
7	T-1 (0.5'-1')	G	1			X					X		12/20/2023		X	X	X
8	T-1 (1'-1.5')	G	1			X					X		12/20/2023		X	X	X
9	T-1 (1.5'-2')	G	1			X					X		12/20/2023		X	X	X
10	T-1 (2'-2.25')	G	1			X					X		12/20/2023		X	X	X

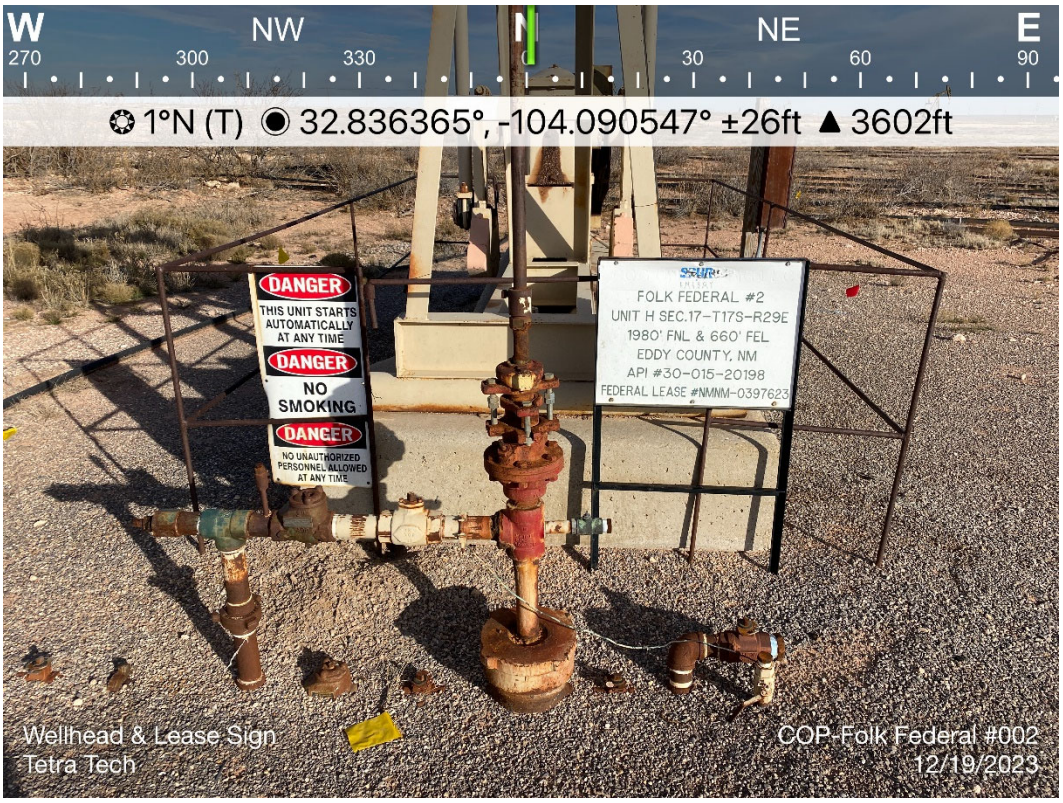
Relinquished By: Colton Bickerstaff	Date: 12/20/23 Time: 1241	Received By:	Verbal Result: ☐ Yes ☐ No	Add'l Phone #:
			All Results are emailed. Please provide Email address: Christian.Llull@tetratech.com	
Relinquished By:	Date: Time:	Received By:	REMARKS:	

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 4.1 Corrected Temp. °C	Sample Condition Cool / Intact ☐ Yes ☐ Yes ☐ No ☐ No	CHECKED BY: (Initials) T.O.	Turnaround Time: Standard ☒ Bacteria (only) Sample Condition Rush: N/A ☐ Cool Intact Observed Temp. °C Thermometer ID ~~#113~~ #140 Correction Factor ~~-0.5°C~~ ☐ Yes ☐ Yes ☐ No ☐ No Corrected Temp. °C

FORM-006 R 3.2 10/07/21

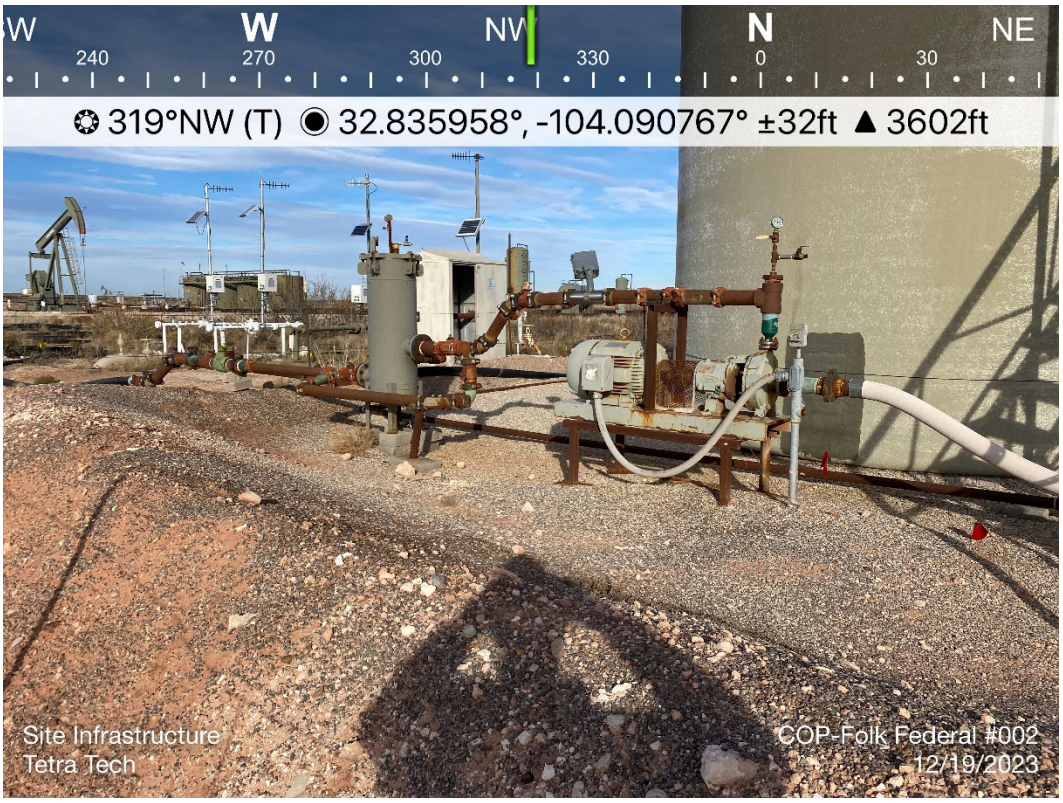
† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

APPENDIX E
Photographic Documentation

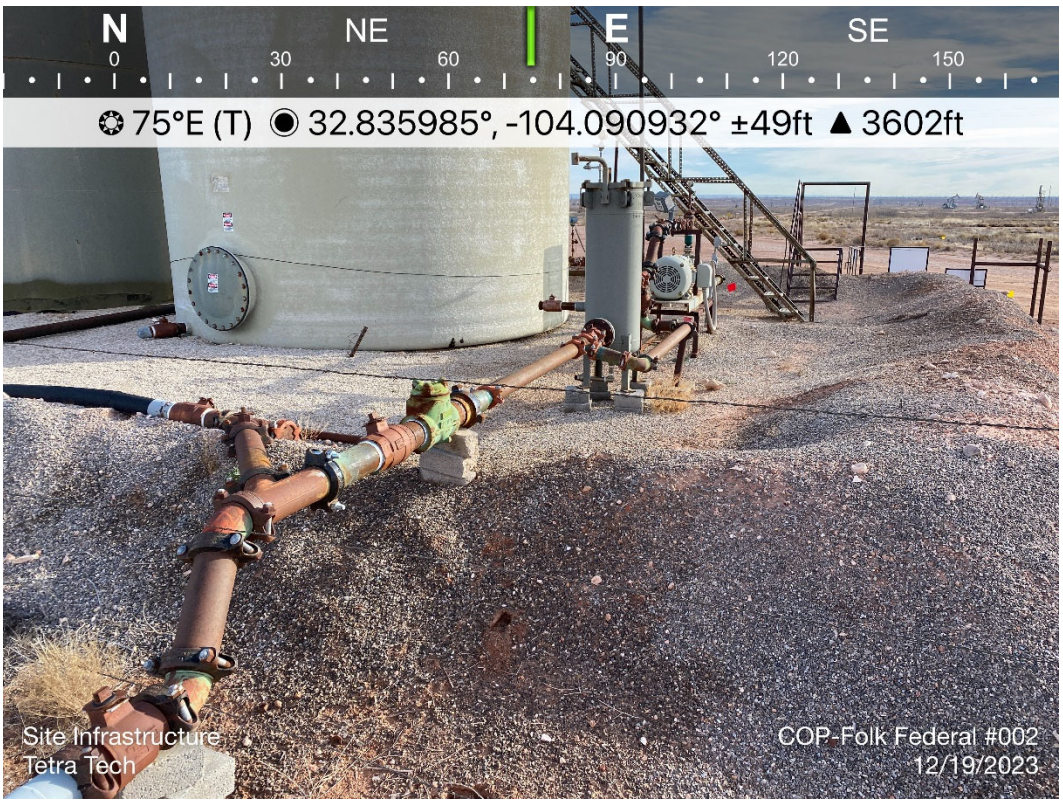


TETRA TECH, INC. PROJECT NO. 212C-MD-03291	DESCRIPTION	View north. View of well head.	1
	SITE NAME	Folk Federal #002 Release	12/19/2023

TETRA TECH, INC. PROJECT NO. 212C-MD-03291	DESCRIPTION	View southwest. View of tank batteries and subsurface lines.	2
	SITE NAME	Folk Federal #002 Release	12/19/2023



TETRA TECH, INC. PROJECT NO. 212C-MD-02832	DESCRIPTION	View northwest. View of site conditions and view of approximate release area.	3
	SITE NAME	Folk Federal #002 Release	12/19/2023



TETRA TECH, INC. PROJECT NO. 212C-MD-02832	DESCRIPTION	View east. View of site conditions and view of approximate release area.	4
	SITE NAME	Folk Federal #002 Release	12/19/2023

TETRA TECH, INC. PROJECT NO. 212C-MD-03291	DESCRIPTION	View north. View northwest of production equipment.	5
	SITE NAME	Folk Federal #002 Release	12/19/2023

TETRA TECH, INC. PROJECT NO. 212C-MD-03291	DESCRIPTION	View north. View inside tank battery berm and production equipment.	6
	SITE NAME	Folk Federal #002 Release	12/19/2023

TETRA TECH, INC. PROJECT NO. 212C-MD-03291	DESCRIPTION	View south. View of tank batteries and surface steel lines.	7
	SITE NAME	Folk Federal #002 Release	12/9/2023

TETRA TECH, INC. PROJECT NO. 212C-MD-03291	DESCRIPTION	View north northeast. View of assessment activities.	8
	SITE NAME	Folk Federal #002 Release	12/20/2023

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

Action 326431

QUESTIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 326431
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAB1630550256**
Incident Name	**NAB1630550256 FOLK FEDERAL #002 @ 30-015-20198**
Incident Type	**Oil Release**
Incident Status	**Remediation Plan Received**
Incident Well	**[30-015-20198] FOLK FEDERAL #002**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	FOLK FEDERAL #002
Date Release Discovered	10/14/2016
Surface Owner	Federal

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: Corrosion | Tank (Any) | Crude Oil | Released: 18 BBL | Recovered: 16 BBL | Lost: 2 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.*

District I
1625 N. French Dr., Hobbs, NM 88240
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Oil Conservation Division
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QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 326431
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**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	**No**
Reasons why this would be considered a submission for a notification of a major release	*Unavailable.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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

I hereby agree and sign off to the above statement	Name: Christian LLuLL Title: Project Manager Email: christian.llull@tetratech.com Date: 03/25/2024

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QUESTIONS (continued)

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QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 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	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	High
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
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)	48
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	14900
GRO+DRO (EPA SW-846 Method 8015M)	13930
BTEX (EPA SW-846 Method 8021B or 8260B)	504
Benzene (EPA SW-846 Method 8021B or 8260B)	7.7
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	05/25/2024
On what date will (or did) the final sampling or liner inspection occur	05/28/2024
On what date will (or was) the remediation complete(d)	05/29/2024
What is the estimated surface area (in square feet) that will be reclaimed	3049
What is the estimated volume (in cubic yards) that will be reclaimed	226
What is the estimated surface area (in square feet) that will be remediated	3049
What is the estimated volume (in cubic yards) that will be remediated	226
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 (continued)

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QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	HALFWAY DISPOSAL AND LANDFILL [fEEM0112334510]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** 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.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Christian LLuLL Title: Project Manager Email: christian.llull@tetratech.com Date: 03/25/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

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	Action Number: 326431
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

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

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QUESTIONS (continued)

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QUESTIONS

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

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

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CONDITIONS

Action 326431

CONDITIONS

Operator:	OGRID:
COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	229137
	Action Number: 326431
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
bhall	Remediation work plan approved. If pressurized lines are found within the excavated areas, based and wall samples will need to be collected from the 4-ft buffer zones. If contamination is found within the 4-ft buffer zones, it will need to be removed utilizing hand shovels or a hydrovac.	4/1/2024
bhall	Submit a complete report through the OCD Permitting website by July 31, 2024.	4/1/2024