

July 29, 2022

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

## Re: Release Characterization, Remediation and Closure Report ConocoPhillips Fez Fee #011H Line Release Unit Letter D, Section 9, Township 25 South, Range 35 East Lea County, New Mexico Incident ID NAPP2207444703

Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips (COP) to assess a release that occurred at the Fez Fee #011H (API No. 30-025-42347). The release footprint is located in Public Land Survey System (PLSS) Unit Letter D, Section 9, Township 25 South, Range 35 East, in Lea County, New Mexico (Site). The approximate release point occurred at coordinates 32.150336°, -103.380206° as shown on Figures 1 and 2.

## BACKGROUND

According to the State of New Mexico C-141 Initial Report (Appendix A), the release was discovered on March 4, 2022. As documented on the C-141 form, a failed welded line on the poly water line led to the release of approximately 5.958 barrels (bbls) of produced water encompassing an area of approximately 489 square feet (sf) off pad. This release extent was corroborated by a review of photographs taken following the release and observations made in the field. Brittany Esparza submitted the initial Form C-141 on March 17, 2022. The NMOCD approved the initial C-141 on the same day, and subsequently assigned the release the Incident ID NAPP2207444703. The approximate release extent is presented in Figure 3.

# SITE CHARACTERIZATION

A site characterization was performed and no watercourses, sinkholes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, springs, playa lakes, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the distances specified in 19.15.0029 New Mexico Administrative Code (NMAC). The Site is in an area of low karst potential.

According to the New Mexico Office of the State Engineers (NMOSE) reporting system, there are no water wells within ½ mile (800 meters) of the Site. There is one (1) water well within an approximate 1-mile (1,600-meter) radius of the Site with a depth to groundwater at 165 feet (ft.) below ground surface (bgs).

As the available water level information was from a well farther than ½ mile away from the Site, the data from a temporary well installed by a licensed well drilling subcontractor on November 1, 2021 was utilized. Based on a Closure Request with established depth to water associated with another Fez Fee 011H Release from June 2021 (NAPP2118732077), this groundwater determination borehole (BH01) was drilled to 105 ft via air rotary drilling rig. BH01 is located at coordinates 32.15092°, -103.37879° and is within a ½ radius of the approximate release point associated with Incident ID NAPP2207444703. The borehole was temporarily set and screened using 2-inch PVC well materials: 87 feet of blank casing and 20 feet of screen. The borehole was left open for 72 hours to allow for potential slow infill of groundwater. After the 72-hour

waiting period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 105 ft. bgs. The borehole was properly abandoned utilizing hydrated bentonite chips. The site characterization data, boring log, and temporary well diagram are presented in Appendix B.

# **REGULATORY FRAMEWORK**

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

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

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

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

Constituent	<b>Reclamation Requirements</b>
Chloride	600 mg/kg
ТРН	100 mg/kg
BTEX	50 mg/kg

# **INITIAL RESPONSE**

In accordance with 19.15.29.8. B. (4) NMAC that states "the responsible party may commence remediation immediately after discovery of a release", COP elected to begin remediation of the impacted area in March 2022. Immediately following the release, a vacuum truck was dispatched to remove all freestanding fluids. Visually stained areas were scraped to remove impacted materials. The extent was scraped to approximately 3 to 6 inches below ground surface, resulting in approximately 10 cubic yards of contaminated soil being removed and sent to R360 Halfway Facility in Hobbs, New Mexico.

# SITE ASSESSMENT AND RESULTS

In order to properly characterize the release footprint and achieve horizontal and vertical delineation of the release extent, Tetra Tech personnel conducted soil sampling following initial response activities. A total of six (6) borings were initially installed within and outside the release footprint using a hand auger on March 25, 2022. Two (2) borings (AH-1 and AH-2) were installed inside the release footprint to a depth of 3 ft bgs to achieve vertical delineation. Four (4) borings (H-1 through H-4) were installed along the perimeter of the release footprint to achieve horizontal delineation.

A total of twelve (12) samples were collected from the six (6) borings and submitted to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico to be analyzed on for chlorides via Standard Method 4500-CI-B, TPH via EPA Method 8015M, and BTEX via EPA Method 8021B. A copy of the laboratory analytical report and chain-of-custody documentation are included in Appendix C.

Release Characterization, Remediation, and Closure Report July 29, 2022

Analytical results from the March 2022 assessment activities are summarized in Table 1. The analytical results associated with AH-1 and AH-2 exceeded the reclamation requirements for chloride (600 mg/kg) in the 0.5 to 1.5-foot sample interval. All other analytical results were below applicable Site RRALs and reclamation requirements for soils above 4 ft bgs for all constituents. Vertical and horizontal delineation of the release was achieved following the March 2022 assessment activities. A copy of the laboratory analytical report and chain-of-custody documentation are included in Appendix C. Photographic documentation of the release extent is included in Appendix D. Hand auger locations from the assessment are shown in Figure 4.

## **REGULATORY CORRESPONDENCE**

In accordance with 19.15.29.12(B)(2) NMAC, COP submitted a 90-day extension request to the NMOCD on May 18, 2022. The extension request was granted by Jennifer Nobui via email on May 18, 2022. The extension moved the deadline to submit a Closure Report to August 19, 2022.

In accordance with 19.15.29.12(D)(1) NMAC, the NMOCD was notified prior to confirmation sampling via email dated July 5, 2022. The notification was received by Jennifer Nobui. Regulatory correspondence is included as Appendix E.

## **REMEDIATION ACTIVITIES AND CONFIRMATION SAMPLING**

Beginning July 6 and continuing through July 12, 2022 Tetra Tech was onsite to oversee the excavation of impacted soils in the release extent to a depth of 2.5 feet below ground surface. Initial excavation work continued until a representative sample from the walls and bottom of the excavation had a field screening value inferred as lower than the reclamation requirements for the Site. Confirmation sample laboratory analytical results were directly compared to the proposed RRALs and/or reclamation requirements to demonstrate compliance.

In accordance with 19.15.29.12(D)(1)(b) NMAC, confirmation sampling of the remediated area for verification of remedial activities were collected where each sidewall and floor sample was representative of approximately 200 square feet. Confirmation sidewall sample locations were categorized with the cardinal direction (N, E, S, W) followed by SW-#. Confirmation floor sample locations are labeled with "FS-#". Excavated areas, depths and confirmation sample locations are shown in Figure 5.

A total of six (6) confirmation floor samples and seven (7) confirmation sidewall samples were collected during the initial round of sampling. In accordance with 19.15.29.12(D)(1)(b) NMAC, confirmation sampling of the remediated area for verification of remedial activities were collected where each sidewall and floor sample was representative of approximately 200 square feet. Confirmation sidewall sample locations were categorized with the cardinal direction (N, E, S, W) followed by SW-#. Confirmation floor sample locations were labeled with "FS"-#. Selected areas required additional excavation to collect a representative sample that was below the reclamation requirements for that location. As the analytical results associated with these sample locations until field screening results indicated closure criteria were attained.

Iterative confirmation samples were located to encompass the original sample locations that triggered removal (nomenclature defined in Table 2) post-additional excavation. If the sidewall area was expanded due to unacceptable confirmation sample results, the parentheses indicate the expansion iteration. For floor samples, the parentheses indicate the excavation floor depth from which the sample was collected.

Thus, four (4) additional confirmation floor samples and one (1) additional confirmation sidewall sample were collected following expansion and deepening of the excavation. All final confirmation sidewall and floor sample analytical results were below Site RRALs and reclamation requirements for soils in the 0-4 ft bgs interval. Results from the July 2022 confirmation sampling events are summarized in Table 2.

Collected confirmation samples were placed into laboratory-provided sample containers, transferred under chain-of-custody, and analyzed for TPH, BTEX, and chloride within appropriate holding times by Cardinal

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Laboratories in Hobbs, New Mexico. Copies of the laboratory analytical reports and chain-of-custody documentation are included in Appendix F.

A total of 160 cubic yards, in total, of excavated material were transported for proper disposal. 56 cubic yards of material were transported to R360 in Hobbs, New Mexico and 104 cubic yards of material was transported to the Northern Delaware Basin Landfill in Jal, New Mexico. Copies of the waste tickets are included as Appendix G.

## SITE RECLAMATION AND RESTORATION

The excavated areas were backfilled post-confirmation sample collection and upon receiving analytical results below the applicable RRALs and reclamation requirements. Photographic documentation of the excavated areas prior to and immediately following placement of backfill are provided in Appendix D.

The backfilled areas in the pasture were seeded to aid in revegetation in July 2022. Based on the soils at the site, the New Mexico State Land Office (NMSLO) Sandy Loam Sites Seed Mixture was used for seeding and planted in the amount specified in the pounds pure live seed (PLS) per acre. The NMSLO seed mixture details are included in Appendix H.

Site inspections will be performed to assess the revegetation progress and evaluate the Site for the presence of primary or secondary noxious weeds. If noxious weeds are identified, the NMSLO will be contacted to determine an effective method for eradication. If the Site does not show revegetation after one growing season the area will be reseeded as appropriate.

## CONCLUSION

ConocoPhillips respectfully requests closure of the incident based on the confirmation sampling results and remediation activities performed. The final C-141 forms are enclosed in Appendix A. If you have any questions concerning the soil assessment, the remediation work, or confirmation sampling for the Site, please call me at (512) 217-7254 or Christian at (512) 338-2861.

Sincerely, Tetra Tech, Inc.

Ryan C. Dickerson Project Manager

Chth

Christian M, Llull, P.G. Program Manager

cc: Mr. Charles Beauvais, GPBU - ConocoPhillips

# LIST OF ATTACHMENTS

## Figures:

- Figure 1 Overview Map
- Figure 2 Site Location/Topographic Map
- Figure 3 Approximate Release Extent
- Figure 4 Initial Response and Site Assessment
- Figure 5 Remediation Extents and Confirmation Sample Locations

## Tables:

Table 1 – Summary of Analytical Results – Soil Assessment

Table 2 - Summary of Analytical Results - Soil Remediation

#### Appendices:

Appendix A – C-141 Forms

Appendix B – Site Characterization Data

Appendix C – Laboratory Analytical Data (Soil Assessment)

Appendix D – Photographic Documentation

Appendix E – Regulatory Correspondence

Appendix F – Laboratory Analytical Data (Soil Remediation)

Appendix G – Waste Manifest/Tickets

Appendix H – NMSLO Seed Mixture

ConocoPhillips

# FIGURES











# TABLES

## TABLE 1 SUMMARY OF ANALYTICAL RESULTS SOIL ASSESSMENT- NAPP2207444703 CONOCOPHILLIPS FEZ FEE #011H LINE RELEASE LEA COUNTY, NM

Field Scrooning Posult			na Deculto			BTEX <sup>2</sup>										TPH <sup>3</sup>							
Sample ID	Comple ID Comple Date		Field Screeni	Field Screening Results		Chloride <sup>1</sup>		Bannana		Taluana		Chulhannana		Total Vylopor		Total BTEV			DRO		EXT DRO		Total TPH
Sample ib	Sample Date		Chloride	PID			Belize	ie	Toluei	e	Ethylben	zene	TOtal Ayle	illes	Total B		C <sub>6</sub> - C <sub>1</sub>	0	> C <sub>10</sub> - 0	C <sub>28</sub>	> C <sub>28</sub> - 0	2 <sub>36</sub>	(GRO+DRO+EXT DRO)
		ft. bgs	ppn	n	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
	2/25/2022	0.5-1.5	9,040	-	8,800		< 0.050	QM-07	< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
AIT	5/25/2022	2-3	169	-	224		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
411.2	2/25/2022	0.5-1.5	2,600	-	2,320		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
AH-2 3/25/2022	3/23/2022	2-3	147	-	160		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
	2/25/2022	0-1	122	-	48.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
11-1	5/25/2022	2-3	257	-	144		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
	2/25/2022	0-1	361	-	400		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
H-2	3/23/2022	2-3	51.1	-	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
ц э	2/25/2022	0-1	70.7	-	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
n-3 3/23/2022	3/23/2022	2-4	35.5	-	16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
H-4 3/25/2022	2/25/2022	0-1	62.6	-	32.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
	5/25/2022	2-3	29.2	-	< 16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-

NOTES:

ft. Feet

bgs Below ground surface

mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbons

GRO Gasoline range organics

DRO Diesel range organics

1 Method SM4500Cl-B

2 Method 8021B

3 Method 8015M

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

Shaded rows indicate intervals proposed for excavation.

QUALIFIERS:

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

based on acceptable LCS recovery.

Received by OCD: 7/29/2022 2:48:40 PM

# TABLE 2 SUMMARY OF ANALYTICAL RESULTS SOIL REMEDIATION - NAPP2207444703 CONOCOPHILLIPS FEX FEE #011H LINE RELEASE LEA COUNTY, NM

			Field Screening Results		Chloride <sup>1</sup>		BTEX <sup>2</sup>										TPH <sup>3</sup>						
Sample ID	Sample Date	Sample Depth					Bonzor	Benzene		Toluene		no	Total Yvi	anos	Total BI	EV	GRC	)	DRO		EXT DR	0	Total TPH
Sample ID	Sample Date		Chloride	PID			Delizei	ie	Toldel	e	Luiyibelize	ine	i otal Aylelles		Total Di	LA	C <sub>6</sub> - C	10	> C <sub>10</sub> - 0	C <sub>28</sub>	> C <sub>28</sub> - C	-36	(GRO+DRO+EXT DRO)
		ft. bgs	ppr	n	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
FS-1	7/6/2022	2	2,630	-	3,440		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
FS-1 (2.5)*	7/8/2022	2.5	116	-	160		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
FS-2	7/6/2022	2	6,570	-	12,200		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
FS-2 (2.5')*	7/8/2022	2.5	257	-	272		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
FS-3	7/6/2022	2	2,940	-	2,240		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
FS-3 (2.5')*	7/8/2022	2.5	512	-	416		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
FS-4	7/6/2022	2	186	-	112		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
FS-5	7/6/2022	2	360	-	256		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
FS-6	7/7/2022	2	2,920	-	3,400		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
FS-6 (2.5')*	7/8/2022	2.5	298	-	240		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
NSW-1	7/7/2022	-	285	-	160		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
NSW-2	7/7/2022	-	166	-	128		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
NSW-3	7/7/2022	-	199	-	160		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
ESW-1	7/6/2022	-	171	-	128		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SSW-1	7/6/2022	-	1,360	-	1,020		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SSW-1 (3')*	7/8/2022	-	351	-	240		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
SSW-2	7/6/2022	-	28.5	-	16.0		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-
WSW-1	7/7/2022	-	226	-	128		< 0.050		< 0.050		< 0.050		< 0.150		< 0.300		< 10.0		< 10.0		< 10.0		-

NOTES:

ft. Feet

Below ground surface bgs

mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbons

GRO Gasoline range organics

DRO Diesel range organics

Method SM4500Cl-B 1

2 Method 8021B

3 Method 8015M Bold and italicized values indicate exceedance of proposed Remediation RRALs and Reclamation Requirements. Gold highlight represents soil horizons that were removed during deepening of excavation floors. Green highlight represents soil intervals that were removed during horizontal expansion of excavation sidewalls.

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

QUALIFIERS:

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# APPENDIX A C-141 Forms

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

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Incident ID	NAPP2207444703
District RP	
Facility ID	30-025-42347
Application ID	

# **Release Notification**

# **Responsible Party**

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

# **Location of Release Source**

Latitude	Longitude
	(NAD 83 in decimal degrees to 5 decimal places)
C' N	C'to Trans

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

Unit Letter	Section	Township	Range	County

Surface Owner: State Federal Tribal Private (Name: \_

# Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release		

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# Oil Conservation Division

Incident ID	NAPP2207444703
District RP	
Facility ID	30-025-42347
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the responsible party consider this a major release?
Yes No	
If YES, was immediate n	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

# **Initial Response**

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

The impacted area has been secured to protect human health and the environment.

The source of the release has been stopped.

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

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

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

Printed Name	<b>b</b>	 Title:
Signature:	Fattan Sparger	 Date:
email:		Telephone:
OCD Only		
Received by:	Jocelyn Harimon	 03/17/2022 Date:

Bassingd by OCD.	7/20/20	222 224				L48 Spill Vo	lume Estimate	Form		NA	PP2207444703	Dach 10 of 190
- Keceivea by OCD:	3/29/20		, Mane & Number:	FEZ FEE 11H			a second second					ruge 1 a 0 119
	- 13		Asset Area:	Delaware basin east								
	Rele	ase Disc	overy Date & Time:	3/4/2022 @1PM								
			Release Type:	Produced Water								
Provi	de any kr	nown deta	ails about the event:	POLY WATER LINE S	SPLIT OPEN AT V	VELD						
					Spi	II Calculation	- On Pad Surface	Pool Spill				
Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Deepest point in each of the areas (in.)	No. of boundaries of "shore" in each area	Estimated <u>Pool</u> Area (sq. ft.)	Estimated Average Depth (ft.)	Estimated volume of each pool area (bbl.)	Penetration allowance (ft.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)
Rectangle A	80.0	5.0	1.00	1	400.000	0.083	5.933	0.004	5.958			
Rectangle B					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle C	1		1		0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle D	1				0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	10		
Rectangle E					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle F	1				0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle G	1		1		0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle H	-				0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle I					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Released to Imagin	ig: 8/2/	2022.3:	20:19 PM M		0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
								Total Volume Release:	5.958			

District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

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

CONDITIONS

Operator:	OGRID:
COG OPERATING LLC	229137
600 W Illinois Ave	Action Number:
Midland, TX 79701	91048
	Action Type:
	[C-141] Release Corrective Action (C-141)
CONDITIONS	

#### Created By Condition Condition Date 3/17/2022 jharimon None

CONDITIONS

Page 19eof 119

Action 91048

.

Received by OCD: 7/29/2022 2:48:40 PM Form C-141 State of New Mexico

Oil Conservation Division

	Page 20 of 119
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 <b>not</b> 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.

<b>Received by OCD:</b> 7/29/2022 2 Form C-141	State of New Mexico	Page 21 of 11       Incident ID
Page 4	On Conservation Division	District RP   Facility ID   Application ID
I hereby certify that the informate regulations all operators are requ public health or the environment failed to adequately investigate a addition, OCD acceptance of a C and/or regulations. Printed Name:	ion given above is true and complete to the best of m ired to report and/or file certain release notifications . The acceptance of a C-141 report by the OCD does nd remediate contamination that pose a threat to gro 2-141 report does not relieve the operator of responsi Title: Beauvais 99	hy knowledge and understand that pursuant to OCD rules and and perform corrective actions for releases which may endanger s not relieve the operator of liability should their operations have undwater, surface water, human health or the environment. In bility for compliance with any other federal, state, or local laws
email:	Teleph	ione:
OCD Only Received by:		Date:

Page 6

Incident ID	
District RP	
Facility ID	
Application ID	

# Closure

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

<b><u>Closure Report Attachment Checklist</u></b> : Each of the following a	items must be included in the closure report.
$\Box$ A scaled site and sampling diagram as described in 19.15.29.	11 NMAC
Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	s of the liner integrity if applicable (Note: appropriate OCD District office
Laboratory analyses of final sampling (Note: appropriate OD	C District office must be notified 2 days prior to final sampling)
Description of remediation activities	
I hereby certify that the information given above is true and complet and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and re human health or the environment. In addition, OCD acceptance of compliance with any other federal, state, or local laws and/or regular restore, reclaim, and re-vegetate the impacted surface area to the co- accordance with 19.15.29.13 NMAC including notification to the O	ete to the best of my knowledge and understand that pursuant to OCD rules in release notifications and perform corrective actions for releases which f a C-141 report by the OCD does not relieve the operator of liability mediate contamination that pose a threat to groundwater, surface water, f a C-141 report does not relieve the operator of responsibility for ations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in DCD when reclamation and re-vegetation are complete.
Printed Name:	Title:
Signature: Charles R. Beauvais 99	Date:
email:	Telephone:
OCD Only	
Received by:	Date:
Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface party of compliance with any other federal, state, or local laws and	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible /or regulations.
Closure Approved by:	Date:
Printed Name:	Title:

# APPENDIX B Site Characterization Data

# New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)	(R=POD has been replaced, O=orphaned, C=the file is closed)	(quarters (quarters	are 1=NW are smalle	2=NE 3=SW ∠ st to largest)	I=SE) (NAD83 UTN	∕l in meters)	(	In feet)	
POD Number	POD Sub- Code basin Co	Q Q Q ounty 64 16 4	ຊ 4 Sec Tws	Rng	x	Y Distanc	Depth e Well	Depth Water (	Water Column
<u>C 02388</u>	CUB	LE	3 05 25S	35E 651	467 3558832	2* 😜 141 Average Depth t Minimu Maximur	5 180 o Water: n Depth: n Depth:	165 165 f 165 f 165 f	15 <sup>i</sup> eet ieet feet
Record Count: 1									

UTMNAD83 Radius Search (in meters):

Easting (X): 652756.93

Northing (Y): 3558248.73

Radius: 1600

\*UTM location was derived from PLSS - see Help

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

7/26/22 3:42 PM

Received by Och: 7/29/2022 2:48:49 PM.us/nmwrrs/ReportProxy?queryData=%7B"report"%3A"waterColumn"%2C%0A"BasinDiv"%3A"tree%225.6f. 119



(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)

No records found.

UTMNAD83	Radius	Search	(in	meters	):
			· · · · · · · · · · · · · · · · · · ·		_

Easting (X): 652762.3

Northing (Y): 3558246.33

**Radius:** 800

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

7/22/22 11:12 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

.

					WS	P USA			BH or MW Name: BH	101	Date: 11-01-2021			
			<u>)</u>	5 Carl	08 West S	Stevens S	Street		Site Name: Fez Fee (	011H	070077			
				oun	5500, 1101	IN INTERNICO	00220	1	VSP Job Number: 3	1402909.110	0732077			
		LITH	OLOG	IC / SOIL	SAMPL	ING LO	G	1	Logged By		Method: Air Rotery			
Lat/Lo	ng: 32.150	92, -103.	37879		Field Scre	ening: N/A	Ą	I	Hole Diameter: 6"		Total Depth: 105'			
Backfi	ll or Well C	Constructi	on Mat	erials / Comr	nents: Tem	porary 2"	monitoring	g well set at 1	07' bgs, screen from	107-87', Boi	rehole sealed at the	surfa	ace to	
prever	nt runoff						<u> </u>							
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol		Lithology	//Remarks			Back We Compl	fill / ell etion
D					0-2	1	CCHE		, DRY, OFF-WH		AN, WELL	_		
					-	2		GRAINE	D SAND, NO ST	AIN, NO O	DOR			
					2-7	2			SENT, MODER	ATELY-PC	DORLY	_		
					-			CONSOL	IDATED, VERT	SILTI				
					_	4						_		
					-	5								
					-	6						-		
М					7-18	- 7	SW-S	POORLY	ONE, MOIST, BE MODERATELY	CONSOL	JHT BROWN IDATED, WELL	_		
					-	8		GRADED	, FINE-MEDIUM		D, TRACE-	_		
					-	9		SUBANG	ULAR GRAVEL,	, NO STAI	N, NO ODOR	-		
					-	10						_		
						10								
					_	11						_		
					-	12								
					-	13						-		
					-	- 14								
					_	14						-		
					_	15						_		
					-	16								
					-	17						4		
					40.40	10		SANDST	ONE MOIST T					
IVI					10-43	10	37-3	MODERA	TELY CONSOL	IDATED, F	POORLY-			
					-	19		GRADED WHITE C	, FINE GRAIN, 1 OBBLE, NO ST/	AIN, NO O	DOR	-		
						20				, -		1		
					-	21						1		
					-	22						1		
					-	23						1		
					-	24						_		
					-	25						_		

Ţ					WS	P USA		E	3H or MW Name: BH01	1 [	Date: 11-01-2021		
						Stovone C	Street	-	Site Name: Fez Fee 011	1H			
Carisbad. New Mexico 88220					r F	RP or Incident Number: NAPP2118732077							
				- Cult					VSP Job Number: 314(	02909 110			
		LITH	OLOG	SIC / SOIL	SAMPL	ING LO	G	L	Logged By	1	Method: Air Roterv		
Lat/Lo	ong: 32.150	92, -103.	37879		Field Scre	ening: N/A	Ą	ŀ	Hole Diameter: 6"		Total Depth: 105'		
Backfi	ill or Woll (	opetructi	on Mat	orials / Comr	nonte: Tom	norary 2"	monitoring	n well set at 1	07' bas scroon from 10	07-87' Bor	Depth to Water:	urfaco to	
prevei	nt runoff	Jonstructi			nents. rem	iporary 2	monitoring	y wen set at i	or bgs, screen nom re	07-07 , DOR	choic sealed at the st		
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol		Lithology/R	Remarks		Backfill / Well Completion	
Μ					18-43	26	SP-S	SANDST	ONE, MOIST, TAN	I-LIGHT I	BROWN,		
					-	27		MODERA GRADED WHITE C	TELY CONSOLID , FINE GRAIN, TR OBBLE, NO STAII	ATED, P RACE SM N, NO OI	OORLY- ALL OFF- DOR	-	
					_	20					-		
					_	29					-	4	
					-	30					-		
					-	31					-		
					32-43	32		SOME OF	F-WHITE GREY,	ED, SMALL	-		
					-	33		GRAVEL	-				
					-	3/			-				
					_								
					_	35							
					_	36							
					_	37					-		
					_	38		-					
					-	39					-		
					-	40					-	-	
						41					-		
					-	42					-		
					43-48	43	SW-S	SANDST	ONE, DRY, OFF-W	ν ΗΙΤΕ ΤΟ	D LIGHT GREY,		
					-	44		MODERA	TLEY-WELL CON	ISOLIDA GRADE	TED, FINE- D, NO STAIN,	$\left[ \begin{array}{c} \\ \\ \end{array} \right]$	
					-	45		NO ODOI	۲		· _	]	
					-	16			-	-			
						40			-				
						47	47						
					48-52	48	SW-S	SANDST YELLOW	ONE, DRY, LIGHT , MODERATELY-V	BROWN	N-LIGHT INSOLIDATED,		
					_	49		FINE-MEI NO ODOI	DIUM GRAIN, WEI R	LL GRAD	DED NO STAIN,	-	
1					-	50						1	

.

N N K N WSP USA						BH or MW Name: BH01 Date: 11-01-2021					
				_							
	508 West Stevens Street Carlsbad, New Mexico, 88220						Site Name: Fez Fee 011H	Site Name: Fez Fee U11H			
				Call	sbau, Nel	W WEALCO	00220	KP or incident Number: NAPP2118/32077			
							Logged By Method: Air Rotery				
Lat/Lo	ng: 32.150	92, -103.	37879		Field Scre	ening: N/A	1	Hole Diameter: 6" Total Depth: 105'			
Pookfi	ll or Woll (	`onotru oti	on Mot	oriala / Comp	oonto: Tom	norony 2"	monitoring	Depth to Water:			
prever	nt runoff	Jonstructi	on Mat		nents. ren	iporary 2					
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks V Com	ckfill / Vell pletion		
D					51	51	SW-S	_			
D					52-58	52	SW-S	SANDSTONE, DRY, OFF-WHITE TO TAN,			
					-	53		GRADED, FINE GRAIN, NO STAIN, NO ODOR			
					-	54					
					-	55		- -			
					-	56					
					-	57					
D					58-101	58	SW-S	SANDSTONE, DRY, BROWN-LIGHT BROWN,			
					-	59		FINE-MEDUIM GRAIN, NO STAIN, NO ODOR			
					-	60					
					-	61					
					-	62		- -			
					-	63		- -			
					-	64					
					-	65					
					-	66					
					-	67					
					-	68					
					-	69					
					-	70					
					-	71					
					-	72					
					_	73					
					-	74		BEGIN ADDING WATER DOWNHOLE TO COOL			
						75		OFF THE DRILL BIT			

		WSP USA			BH or MW Name: BH01	1	Date: 11-01-2021		
	5	08 West Stevens S		Site Name: Fez Fee 011H					
	Call	Sbau, New Wexico	00220		RP or Incident Number: NAPP2118732077				
		SAMPLING LO	WSP Job Number: 31402909.110						
Lat/Long: 32.15092, -103.3	7879	Field Screening: N/A	4		Hole Diameter: 6"		Total Depth: 105'		
		_					Depth to Water:		
Backfill or Well Constructio prevent runoff	n Materials / Comr	nents: Temporary 2"	monitoring	well set at 1	07' bgs, screen from 10	07-87', Bor	ehole sealed at the su	rface to	
Moisture Content Chloride (ppm) Vapor (ppm)	Staining Sample #	Sample Depth (ft bgs)	USCS/Rock Symbol		Lithology/R	Remarks		Backfill / Well Completion	
		76     77     78     79     80     81     82     83     84     85     86     87     88     90     91     92     93     94     95-100   95     98     97     98     99     100	SW-S	VERY FI	NE GRAIN				

•

	WSPUSA	BH or MW Name: BH01	Date: 11-01-2021				
	08 West Stevens Street	Site Name: Fez Fee 011H	Site Name: Fez Fee 011H				
Car	Isbad, New Mexico 88220	RP or Incident Number: NAPP2	118732077				
	SAMPLING LOG	WSP Job Number: 31402909.1	10 Method: Air Roten/				
Lat/Long: 32.15092, -103.37879	Field Screening: N/A	Hole Diameter: 6"	Total Depth: 105'				
Backfill or Well Construction Materials / Comr	nents: Temporary 2" monitoring we	Il set at 107' bgs, screen from 107-87'. B	Depth to Water: orehole sealed at the surface to				
prevent runoff		<b>.</b> ,					
Moisture Content Chloride (ppm) Vapor (ppm) Staining Staining	Sample Depth (ft bgs)	Lithology/Remarl	s Backfill / Well Completion				
M	101-107 1 101 CH-S C 102 C 103 104 105 106 107	LAYSTONE, MOIST, DARK REI /ELL CONSOLIDATED, HIGH P OHESIVE, TRACE VERY FINE TAIN, NO ODOR	DDISH BROWN, LASTICITY, GRAIN SAND, NO 				



# OCD Waterbodies Map



## 3/23/2022, 1:27:31 PM

Wells - Large Scale
\*
CO2, Cancelled

Image: output of the state of the state output of the state output of the state output out

**Released to Imaging: 8/2/2022 3:20:19 PM** 

Gas, Temporarily Abandoned 🖉 Injection, Plugged

Gas, Cancelled 🖍 Injection, Active

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Gas, Active

Gas, New

Gas, Plugged

Injection, Cancelled

Injection, New



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources

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

# APPENDIX C Laboratory Analytical Data



March 29, 2022

CHRISTIAN LLULL TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND, TX 79701

RE: FEZ FEE # 11H

Enclosed are the results of analyses for samples received by the laboratory on 03/25/22 12:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



## Analytical Results For:

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

Received:	03/25/2022	Sampling Date:	03/25/2022
Reported:	03/29/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	** (See Notes)
Project Number:	212C - MD - 02712	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA CO NM		

## Sample ID: AH - 1 ( 0.5' - 1.5' ) (H221189-01)

BTEX 8021B	mg/	kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/29/2022	ND	1.79	89.3	2.00	2.77	QM-07
Toluene*	<0.050	0.050	03/29/2022	ND	2.00	100	2.00	3.08	
Ethylbenzene*	<0.050	0.050	03/29/2022	ND	2.11	106	2.00	2.54	
Total Xylenes*	<0.150	0.150	03/29/2022	ND	6.57	109	6.00	2.55	
Total BTEX	<0.300	0.300	03/29/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 %	69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8800	16.0	03/28/2022	ND	448	112	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/28/2022	ND	196	97.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	03/28/2022	ND	225	113	200	3.99	
EXT DRO >C28-C36	<10.0	10.0	03/28/2022	ND					
Surrogate: 1-Chlorooctane	86.2 9	66.9-13	6						
Surrogate: 1-Chlorooctadecane	86.6 9	59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including those of use, or loss of profits incurred by client, its subsidiaries, affiliates or successor arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



## Analytical Results For:

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

Received:	03/25/2022	Sampling Date:	03/25/2022
Reported:	03/29/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	** (See Notes)
Project Number:	212C - MD - 02712	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA CO NM		

### Sample ID: AH - 1 ( 2' - 3' ) (H221189-02)

BTEX 8021B	mg/kg		Analyzed By: MS\						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/28/2022	ND	1.79	89.3	2.00	2.77	
Toluene*	<0.050	0.050	03/28/2022	ND	2.00	100	2.00	3.08	
Ethylbenzene*	<0.050	0.050	03/28/2022	ND	2.11	106	2.00	2.54	
Total Xylenes*	<0.150	0.150	03/28/2022	ND	6.57	109	6.00	2.55	
Total BTEX	<0.300	0.300	03/28/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	03/28/2022	ND	448	112	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/28/2022	ND	196	97.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	03/28/2022	ND	225	113	200	3.99	
EXT DRO >C28-C36	<10.0	10.0	03/28/2022	ND					
Surrogate: 1-Chlorooctane	96.7	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	94.1	% 59.5-14	2						

#### Cardinal Laboratories

#### \*=Accredited Analyte

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager


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

Received:	03/25/2022	Sampling Date:	03/25/2022
Reported:	03/29/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	** (See Notes)
Project Number:	212C - MD - 02712	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA CO NM		

# Sample ID: AH - 2 ( 0.5' - 1.5' ) (H221189-03)

BTEX 8021B	mg/	kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/28/2022	ND	1.79	89.3	2.00	2.77	
Toluene*	<0.050	0.050	03/28/2022	ND	2.00	100	2.00	3.08	
Ethylbenzene*	<0.050	0.050	03/28/2022	ND	2.11	106	2.00	2.54	
Total Xylenes*	<0.150	0.150	03/28/2022	ND	6.57	109	6.00	2.55	
Total BTEX	<0.300	0.300	03/28/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 %	69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2320	16.0	03/28/2022	ND	448	112	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/28/2022	ND	196	97.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	03/28/2022	ND	225	113	200	3.99	
EXT DRO >C28-C36	<10.0	10.0	03/28/2022	ND					
Surrogate: 1-Chlorooctane	89.7 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	87.7 9	% 59.5-14	2						

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Received:	03/25/2022	Sampling Date:	03/25/2022
Reported:	03/29/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	** (See Notes)
Project Number:	212C - MD - 02712	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA CO NM		

# Sample ID: AH - 2 ( 2' - 3' ) (H221189-04)

BTEX 8021B	mg/	'kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/28/2022	ND	1.79	89.3	2.00	2.77	
Toluene*	<0.050	0.050	03/28/2022	ND	2.00	100	2.00	3.08	
Ethylbenzene*	<0.050	0.050	03/28/2022	ND	2.11	106	2.00	2.54	
Total Xylenes*	<0.150	0.150	03/28/2022	ND	6.57	109	6.00	2.55	
Total BTEX	<0.300	0.300	03/28/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	03/28/2022	ND	448	112	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/28/2022	ND	196	97.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	03/28/2022	ND	225	113	200	3.99	
EXT DRO >C28-C36	<10.0	10.0	03/28/2022	ND					
Surrogate: 1-Chlorooctane	89.8	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	87.6	% 59.5-14	2						

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

Received:	03/25/2022	Sampling Date:	03/25/2022
Reported:	03/29/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	** (See Notes)
Project Number:	212C - MD - 02712	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA CO NM		

# Sample ID: H - 1 ( 0' - 1' ) (H221189-05)

BTEX 8021B	mg/	′kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/28/2022	ND	1.79	89.3	2.00	2.77	
Toluene*	<0.050	0.050	03/28/2022	ND	2.00	100	2.00	3.08	
Ethylbenzene*	<0.050	0.050	03/28/2022	ND	2.11	106	2.00	2.54	
Total Xylenes*	<0.150	0.150	03/28/2022	ND	6.57	109	6.00	2.55	
Total BTEX	<0.300	0.300	03/28/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	mg/kg Analyze		d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/28/2022	ND	448	112	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/28/2022	ND	196	97.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	03/28/2022	ND	225	113	200	3.99	
EXT DRO >C28-C36	<10.0	10.0	03/28/2022	ND					
Surrogate: 1-Chlorooctane	83.8	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	81.0	% 59.5-14	2						

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Received:	03/25/2022	Sampling Date:	03/25/2022
Reported:	03/29/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	** (See Notes)
Project Number:	212C - MD - 02712	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA CO NM		

# Sample ID: H - 1 ( 2' - 3' ) (H221189-06)

BTEX 8021B	mg/	′kg	Analyze	d By: MS\					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/28/2022	ND	1.79	89.3	2.00	2.77	
Toluene*	<0.050	0.050	03/28/2022	ND	2.00	100	2.00	3.08	
Ethylbenzene*	<0.050	0.050	03/28/2022	ND	2.11	106	2.00	2.54	
Total Xylenes*	<0.150	0.150	03/28/2022	ND	6.57	109	6.00	2.55	
Total BTEX	<0.300	0.300	03/28/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	106	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	03/28/2022	ND	448	112	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/28/2022	ND	196	97.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	03/28/2022	ND	225	113	200	3.99	
EXT DRO >C28-C36	<10.0	10.0	03/28/2022	ND					
Surrogate: 1-Chlorooctane	90.0	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	89.0	% 59.5-14	2						

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Received:	03/25/2022	Sampling Date:	03/25/2022
Reported:	03/29/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	** (See Notes)
Project Number:	212C - MD - 02712	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA CO NM		

# Sample ID: H - 2 ( 0' - 1' ) (H221189-07)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/28/2022	ND	1.75	87.6	2.00	3.27	
Toluene*	<0.050	0.050	03/28/2022	ND	1.97	98.7	2.00	3.23	
Ethylbenzene*	<0.050	0.050	03/28/2022	ND	2.00	99.9	2.00	2.80	
Total Xylenes*	<0.150	0.150	03/28/2022	ND	6.23	104	6.00	2.51	
Total BTEX	<0.300	0.300	03/28/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	03/28/2022	ND	448	112	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/28/2022	ND	196	97.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	03/28/2022	ND	225	113	200	3.99	
EXT DRO >C28-C36	<10.0	10.0	03/28/2022	ND					
Surrogate: 1-Chlorooctane	92.3	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	90.3	% 59.5-14	2						

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Received:	03/25/2022	Sampling Date:	03/25/2022
Reported:	03/29/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	** (See Notes)
Project Number:	212C - MD - 02712	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA CO NM		

# Sample ID: H - 2 ( 2' - 3' ) (H221189-08)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/28/2022	ND	1.75	87.6	2.00	3.27	
Toluene*	<0.050	0.050	03/28/2022	ND	1.97	98.7	2.00	3.23	
Ethylbenzene*	<0.050	0.050	03/28/2022	ND	2.00	99.9	2.00	2.80	
Total Xylenes*	<0.150	0.150	03/28/2022	ND	6.23	104	6.00	2.51	
Total BTEX	<0.300	0.300	03/28/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 69.9-14	0						
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	03/28/2022	ND	448	112	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/28/2022	ND	196	97.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	03/28/2022	ND	225	113	200	3.99	
EXT DRO >C28-C36	<10.0	10.0	03/28/2022	ND					
Surrogate: 1-Chlorooctane	133 9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	162 9	59.5-14	2						

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

Received:	03/25/2022	Sampling Date:	03/25/2022
Reported:	03/29/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	** (See Notes)
Project Number:	212C - MD - 02712	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA CO NM		

# Sample ID: H - 3 ( 0' - 1' ) (H221189-09)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/28/2022	ND	1.75	87.6	2.00	3.27	
Toluene*	<0.050	0.050	03/28/2022	ND	1.97	98.7	2.00	3.23	
Ethylbenzene*	<0.050	0.050	03/28/2022	ND	2.00	99.9	2.00	2.80	
Total Xylenes*	<0.150	0.150	03/28/2022	ND	6.23	104	6.00	2.51	
Total BTEX	<0.300	0.300	03/28/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/28/2022	ND	448	112	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/28/2022	ND	196	97.9	200	1.33	
DRO >C10-C28*	<10.0	10.0	03/28/2022	ND	225	113	200	3.99	
EXT DRO >C28-C36	<10.0	10.0	03/28/2022	ND					
Surrogate: 1-Chlorooctane	95.4	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	94.7	% 59.5-14	2						

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Received:	03/25/2022	Sampling Date:	03/25/2022
Reported:	03/29/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	** (See Notes)
Project Number:	212C - MD - 02712	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA CO NM		

# Sample ID: H - 3 ( 2' - 4' ) (H221189-10)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/28/2022	ND	1.75	87.6	2.00	3.27	
Toluene*	<0.050	0.050	03/28/2022	ND	1.97	98.7	2.00	3.23	
Ethylbenzene*	<0.050	0.050	03/28/2022	ND	2.00	99.9	2.00	2.80	
Total Xylenes*	<0.150	0.150	03/28/2022	ND	6.23	104	6.00	2.51	
Total BTEX	<0.300	0.300	03/28/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	03/28/2022	ND	448	112	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/28/2022	ND	213	107	200	0.851	
DRO >C10-C28*	<10.0	10.0	03/28/2022	ND	222	111	200	2.36	
EXT DRO >C28-C36	<10.0	10.0	03/28/2022	ND					
Surrogate: 1-Chlorooctane	87.6	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	93.0	% 59.5-14	2						

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Received:	03/25/2022	Sampling Date:	03/25/2022
Reported:	03/29/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	** (See Notes)
Project Number:	212C - MD - 02712	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA CO NM		

# Sample ID: H - 4 ( 0' - 1' ) (H221189-11)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/28/2022	ND	1.75	87.6	2.00	3.27	
Toluene*	<0.050	0.050	03/28/2022	ND	1.97	98.7	2.00	3.23	
Ethylbenzene*	<0.050	0.050	03/28/2022	ND	2.00	99.9	2.00	2.80	
Total Xylenes*	<0.150	0.150	03/28/2022	ND	6.23	104	6.00	2.51	
Total BTEX	<0.300	0.300	03/28/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/28/2022	ND	448	112	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/28/2022	ND	213	107	200	0.851	
DRO >C10-C28*	<10.0	10.0	03/28/2022	ND	222	111	200	2.36	
EXT DRO >C28-C36	<10.0	10.0	03/28/2022	ND					
Surrogate: 1-Chlorooctane	90.9	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	96.4	% 59.5-14	2						

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Received:	03/25/2022	Sampling Date:	03/25/2022
Reported:	03/29/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	** (See Notes)
Project Number:	212C - MD - 02712	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA CO NM		

# Sample ID: H - 4 ( 2' - 3' ) (H221189-12)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/28/2022	ND	1.75	87.6	2.00	3.27	
Toluene*	<0.050	0.050	03/28/2022	ND	1.97	98.7	2.00	3.23	
Ethylbenzene*	<0.050	0.050	03/28/2022	ND	2.00	99.9	2.00	2.80	
Total Xylenes*	<0.150	0.150	03/28/2022	ND	6.23	104	6.00	2.51	
Total BTEX	<0.300	0.300	03/28/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/28/2022	ND	448	112	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/28/2022	ND	213	107	200	0.851	
DRO >C10-C28*	<10.0	10.0	03/28/2022	ND	222	111	200	2.36	
EXT DRO >C28-C36	<10.0	10.0	03/28/2022	ND					
Surrogate: 1-Chlorooctane	99.4	% 66.9-13	6						
Surrogate: 1-Chlorooctadecane	106 9	59.5-14	2						

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# **Notes and Definitions**

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-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

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 15 of 16

(575) 393-2326 FAX	( (5/5) 333-2410 BILL TO	ANALYSIS REQUEST
ct Manager: Chattan Lu	nll P.O. #:	
ess:	state: Zip: Attn: Christen Lu	M
E.	Fax #: Address: by che	2
ret#:2/2/-MD-027/2	Project Owner: City:	
oct Name: Per Per H	NH State:	
ect Location: Les Loundh	ANA Fax #:	
pler Name: (AUTON 1514NC	MATRIX PRESERV. SAMP	ING
ab I.D. Sample I.	GG)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :	TPH BTEX X Chrono
2 44-1 (25-51) 2 44-1 (25-51) 3 A41-2 (25-51)	alsais	
5 H-1 (2-3')		
7 H-2 (0-1) 8 H-2 (2:-3')		
A H-3 (0-1')		a by the client for the
ASE NOTE: Liability and Damages, Cardinal's liability and a pses. All claims including those for negligence and any other including those for negligence and any other including the set of the set	client's exclusive remoty for any client attendy writine useour writing and received by Cardinal within 0 days a er cause whatsoever shall be deemed waked unless made in writing and received by Cardinal within formed by resourced attended to the second s	clant, its subsidiaries.
In or successors are straining out of or related to the performant these resuccessors are straining out of or related to the performant time of the successors are straining out of or related to the performant time of the successors are straining out of or related to the performant time of the successors are straining out of or related to the performant time of the successors are straining out of or related to the performant time of the successors are straining out of or related to the performant time of the successors are straining out of or related to the performant time of the successors are straining out of or related to the performant time of the successors are straining out of or related to the performant time of the successors are straining out of or related to the performant time of the successors are straining out of or related to the performant time of the successors are straining out of the successors are straining out of or related to the performant time of the successors are straining out of or successors are straining out of the successors are straining out of or related to the performant time of the successors are straining out of or related to the performant time of the successors are straining out of or related to the performant time of the successors are straining out of the successors ar	Time: 205 Along Al	All Results are emailed. Please provide Email address: All Results are emailed. Please provide Email address: Christian, Llunk OdeAnz Jech, Com
linguisned by:	Time:	Standard M Bacteria (only) Sample Condition
Velivered By: (Circle One)	Corrected Temp. °C A C A L Yes Yes Kinitals)	Thermometer ID #113 Correction Factor -0.5°C Correction Factor -0.5°C

E

# 101 East Marland, Hobbs, NM 88240

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C Sa	BUBY	hether hess n busin		WASTEWATER	4
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Int		in con writin		OIL	-
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ion	<u>(</u> -	receives of		ACID/BASE:	-
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ECKED BY:	Am	ted to the amount paid al within 30 days after of profits incurred by cl of the above stated rea	3/22/22 3/22/22	DATE	
Turnarou	All Results	by the client for completion of the ent, its subsidial sons or otherwise		TIME	
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ime: ) #113 or -0.5°C	emailed	icable	X	BTEX	
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Sampler - UPS - Bus - Other: Delivered By: (Circle One)

Corrected Temp. °C 13 3 C

Time: Date: Time:

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analyses. All claims including those for negligence and any other cause whatso service. In no event shall Cardinal be liable for incidental or consequential dama

rising out of or related to the perfo

Date:

PLEASE NOTE: Liability and Da

**Relinquished By:** 

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 49 of 119

Company Name:

Some Le Phillips

P.O. #:

BILL TO

ANALYSIS

REQUEST

Page 16 of 16

Company: Tetra

Tech

Attn: Christen Link

hatten Unil

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

Project Manager:

City:

Address

Phone #:

Project #: 2/26-MD-02712

Project Location: Project Name: FC2

Lea

County, MM

Sizkershell

MATRIX

PRESERV

SAMPLING

Fax #:

Phone #: State:

Sec

HIH

Project Owner:

City:

Zip:

Address:

by erroll

Fax #: State:

Zip

Sampler Name: FOR LAB USE ONLY

Coltra

Lab I.D.

Sample I.D.

189

N

H-H H-H

60-1' 12:3

# APPENDIX D Photographic Documentation



TETRA TECH, INC.	DESCRIPTION	View east. Release extent.	1
212C-MD-02712	SITE NAME	Fez Fee #011H Line Release	3/2022



TETRA TECH, INC. PROJECT NO. 212C-MD-02712	DESCRIPTION	View west. Release area on the southern side of the tank battery.	2
	SITE NAME	Fez Fee #011H Line Release	3/2022









212C-MD-02712	SITE NAME	Fez Fee #011H Line Release	7/8/2022

# © 286°W (T) ● 32.150351°, -103.380089° ±4m



TETRA TECH, INC.		battery.	
212C-MD-02712	SITE NAME	Fez Fee #011H Line Release	7/11/2022



# © 269°W (T) ● 32.150299°, -103.379985° ±6m



# APPENDIX E Regulatory Correspondence

From:	Nobui, Jennifer, EMNRD
To:	Chama, Sam
Cc:	Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD; Harimon, Jocelyn, EMNRD
Subject:	FW: [EXTERNAL] Incident ID (N#) NAPP2207444703
Date:	Tuesday, July 5, 2022 3:53:33 PM
Attachments:	image001.png image002.png image003.png image004.png image005.png

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

Sam

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

Thanks, Jennifer Nobui

From: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Sent: Tuesday, July 5, 2022 2:44 PM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Nobui, Jennifer, EMNRD
<Jennifer.Nobui@state.nm.us>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@state.nm.us>;
Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Velez, Nelson, EMNRD
<Nelson.Velez@state.nm.us>
Subject: Fw: [EXTERNAL] Incident ID (N#) NAPP2207444703

From: Chama, Sam <<u>SAM.CHAMA@tetratech.com</u>>
Sent: Tuesday, July 5, 2022 9:39 AM
To: Enviro, OCD, EMNRD <<u>OCD.Enviro@state.nm.us</u>>
Cc: Poole, Nicholas <<u>NICHOLAS.POOLE@tetratech.com</u>>
Subject: [EXTERNAL] Incident ID (N#) NAPP2207444703

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

To whom it may concern,

In accordance with Subsection D of 19.15.29.12 NMAC, the responsible party must notify the appropriate division district office prior to conducting confirmation sampling. Thus, on behalf of ConocoPhillips for the above referenced incident, Tetra Tech is duly providing this communication which serves as notification that confirmation sampling will be conducted at this site from July 7 through July 12, 2022.

For any questions regarding this sampling schedule, please contact me (Sam Chama).

Thank you, Sam Chama, G.I.T. | Staff Geologist Mobile +1 (509) 768-2191 | Business +1 (512) 338-1667 | Fax +1 (512) 338-1331 | <u>sam.chama@tetratech.com</u>

# Tetra Tech | Leading with Science<sup>®</sup> | OGA

8911 N. Capital of Texas Highway | Bldg. 2, Suite 2310 | Austin, TX 78759 | tetratech.com

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	Please consider the environment before printing. Read more
?	

From:	Beauvais, Charles R
To:	Llull, Christian
Subject:	FW: [EXTERNAL] (Extension Request 1) Fez Fee #011H Line Release incident (NAPP2207444703)
Date:	Thursday, May 19, 2022 12:53:16 PM
Attachments:	image001.png FIGURES.pdf TABLE.pdf

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

FYI

From: Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>

Sent: Wednesday, May 18, 2022 2:39 PM

To: Beauvais, Charles R < Charles.R.Beauvais@conocophillips.com>

Cc: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@state.nm.us> Subject: FW: [EXTERNAL] (Extension Request 1) Fez Fee #011H Line Release incident (NAPP2207444703)

**CAUTION**: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Charles

Your request for a 90-day extension to **August 19, 2022** is approved to submit a Closure Report. Please include this e-mail correspondence in the remediation and/or closure report.

Thanks, Jennifer Nobui

From: Enviro, OCD, EMNRD <<u>OCD.Enviro@state.nm.us</u>>
Sent: Wednesday, May 18, 2022 12:52 PM
To: Hamlet, Robert, EMNRD <<u>Robert.Hamlet@state.nm.us</u>>; Nobui, Jennifer, EMNRD
<<u>Jennifer.Nobui@state.nm.us</u>>; Bratcher, Mike, EMNRD <<u>mike.bratcher@state.nm.us</u>>; Harimon,
Jocelyn, EMNRD <<u>Jocelyn.Harimon@state.nm.us</u>>
Subject: Fw: [EXTERNAL] (Extension Request 1) Fez Fee #011H Line Release incident
(NAPP2207444703)

From: Beauvais, Charles R <<u>Charles.R.Beauvais@conocophillips.com</u>>
Sent: Wednesday, May 18, 2022 12:49 PM
To: Beauvais, Charles R <<u>Charles.R.Beauvais@conocophillips.com</u>>; EMNRD-OCD-District1spills

<<u>EMNRD-OCD-District1spills@state.nm.us</u>>; Hamlet, Robert, EMNRD <<u>Robert.Hamlet@state.nm.us</u>>; Esparza, Brittany <<u>Brittany.Esparza@conocophillips.com</u>>; Enviro, OCD, EMNRD <<u>OCD.Enviro@state.nm.us</u>> **Cc:** Fejervary Morena, Gustavo A <<u>G.Fejervary@conocophillips.com</u>>

Subject: [EXTERNAL] (Extension Request 1) Fez Fee #011H Line Release incident (NAPP2207444703)

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

To whom it may concern:

ConocoPhillips is requesting a 90-day extension (until September 1, 2022) to complete the remediation and associated reporting for the Fez Fee #011H Line Release incident (**NAPP2207444703**).

Justification for this request, including figures and analytical data showing the project progress of ConocoPhillips is attached and described below.

In March 2022, on behalf of COP, Tetra Tech personnel completed six soil borings at the release site to approximately 3' ft below ground surface using a hand auger. Please see Figure 3. The borings were completed to vertically delineate and/or horizontally define the release extent. Please see attached laboratory analytical results.

A Site characterization has been completed.

Based on the most laboratory analytical results, impact at the release site is delineated.

Both a remediation work plan and confirmation sampling plan have been prepared.

COP plans to conduct remediation in the coming month.

Once the confirmation sampling data is collected, tabulated, and evaluated, a closure report will be submitted to the OCD.

Thank you in advance.

Respectfully,

# Charles R. Beauvais II

Senior Environmental Engineer | Environmental Operations | ConocoPhillips (M) 575-988-2043 Charles.R.Beauvais@conocophillips.com

Our work is never so urgent or important that we cannot take the time to do it safely and in an environmentally responsible manner.



# APPENDIX F Laboratory Analytical Data



July 07, 2022

CHRISTIAN LLULL TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND, TX 79701

RE: FEZ FEE # 11H

Enclosed are the results of analyses for samples received by the laboratory on 07/06/22 16:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	07/06/2022	Sampling Date:	07/06/2022
Reported:	07/07/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-02712 LINE RELEASE REM.	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM		

# Sample ID: FS - 1 (H222899-01)

BTEX 8021B	mg/	kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/07/2022	ND	2.21	110	2.00	0.983	
Toluene*	<0.050	0.050	07/07/2022	ND	2.18	109	2.00	0.432	
Ethylbenzene*	<0.050	0.050	07/07/2022	ND	2.21	110	2.00	1.01	
Total Xylenes*	<0.150	0.150	07/07/2022	ND	6.72	112	6.00	1.30	
Total BTEX	<0.300	0.300	07/07/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	69.9-140	)						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3440	16.0	07/07/2022	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2022	ND	193	96.6	200	1.53	
DRO >C10-C28*	<10.0	10.0	07/07/2022	ND	185	92.6	200	1.81	
EXT DRO >C28-C36	<10.0	10.0	07/07/2022	ND					
Surrogate: 1-Chlorooctane	84.4 9	43-149							
Surrogate: 1-Chlorooctadecane	90.4 9	42.5-161							

# Cardinal Laboratories

# \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	07/06/2022	Sampling Date:	07/06/2022
Reported:	07/07/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-02712 LINE RELEASE REM.	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM		

# Sample ID: FS - 2 (H222899-02)

BTEX 8021B	mg/	kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/07/2022	ND	2.21	110	2.00	0.983	
Toluene*	<0.050	0.050	07/07/2022	ND	2.18	109	2.00	0.432	
Ethylbenzene*	<0.050	0.050	07/07/2022	ND	2.21	110	2.00	1.01	
Total Xylenes*	<0.150	0.150	07/07/2022	ND	6.72	112	6.00	1.30	
Total BTEX	<0.300	0.300	07/07/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	69.9-14	0						
Chloride, SM4500Cl-B	mg/	mg/kg Analy		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	12200	16.0	07/07/2022	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2022	ND	193	96.6	200	1.53	
DRO >C10-C28*	<10.0	10.0	07/07/2022	ND	185	92.6	200	1.81	
EXT DRO >C28-C36	<10.0	10.0	07/07/2022	ND					
Surrogate: 1-Chlorooctane	98.8 9	% 43-149							
Surrogate: 1-Chlorooctadecane	106 %	42.5-16	1						

# Cardinal Laboratories

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	07/06/2022	Sampling Date:	07/06/2022
Reported:	07/07/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-02712 LINE RELEASE REM.	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM		

# Sample ID: FS - 3 (H222899-03)

BTEX 8021B	mg/	kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/07/2022	ND	2.21	110	2.00	0.983	
Toluene*	<0.050	0.050	07/07/2022	ND	2.18	109	2.00	0.432	
Ethylbenzene*	<0.050	0.050	07/07/2022	ND	2.21	110	2.00	1.01	
Total Xylenes*	<0.150	0.150	07/07/2022	ND	6.72	112	6.00	1.30	
Total BTEX	<0.300	0.300	07/07/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	69.9-14	0						
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2440	16.0	07/07/2022	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2022	ND	193	96.6	200	1.53	
DRO >C10-C28*	<10.0	10.0	07/07/2022	ND	185	92.6	200	1.81	
EXT DRO >C28-C36	<10.0	10.0	07/07/2022	ND					
Surrogate: 1-Chlorooctane	90.7	% 43-149							
Surrogate: 1-Chlorooctadecane	98.5	% 42.5-16	1						

# Cardinal Laboratories

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	07/06/2022	Sampling Date:	07/06/2022
Reported:	07/07/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-02712 LINE RELEASE REM.	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM		

# Sample ID: FS - 4 (H222899-04)

BTEX 8021B	mg/	kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/07/2022	ND	2.21	110	2.00	0.983	
Toluene*	<0.050	0.050	07/07/2022	ND	2.18	109	2.00	0.432	
Ethylbenzene*	<0.050	0.050	07/07/2022	ND	2.21	110	2.00	1.01	
Total Xylenes*	<0.150	0.150	07/07/2022	ND	6.72	112	6.00	1.30	
Total BTEX	<0.300	0.300	07/07/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 %	69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	07/07/2022	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2022	ND	193	96.6	200	1.53	
DRO >C10-C28*	<10.0	10.0	07/07/2022	ND	185	92.6	200	1.81	
EXT DRO >C28-C36	<10.0	10.0	07/07/2022	ND					
Surrogate: 1-Chlorooctane	99.3 9	% 43-149							
Surrogate: 1-Chlorooctadecane	106 %	6 42.5-16	1						

# Cardinal Laboratories

# \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	07/06/2022	Sampling Date:	07/06/2022
Reported:	07/07/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-02712 LINE RELEASE REM.	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM		

# Sample ID: FS - 5 (H222899-05)

BTEX 8021B	mg/	kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/07/2022	ND	2.21	110	2.00	0.983	
Toluene*	<0.050	0.050	07/07/2022	ND	2.18	109	2.00	0.432	
Ethylbenzene*	<0.050	0.050	07/07/2022	ND	2.21	110	2.00	1.01	
Total Xylenes*	<0.150	0.150	07/07/2022	ND	6.72	112	6.00	1.30	
Total BTEX	<0.300	0.300	07/07/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	07/07/2022	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2022	ND	193	96.6	200	1.53	
DRO >C10-C28*	<10.0	10.0	07/07/2022	ND	185	92.6	200	1.81	
EXT DRO >C28-C36	<10.0	10.0	07/07/2022	ND					
Surrogate: 1-Chlorooctane	91.9 9	% 43-149							
Surrogate: 1-Chlorooctadecane	99.1 9	42.5-16	1						

# Cardinal Laboratories

# \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	07/06/2022	Sampling Date:	07/06/2022
Reported:	07/07/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-02712 LINE RELEASE REM.	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM		

# Sample ID: SSW -1 (H222899-06)

BTEX 8021B	mg/	kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/07/2022	ND	2.21	110	2.00	0.983	
Toluene*	<0.050	0.050	07/07/2022	ND	2.18	109	2.00	0.432	
Ethylbenzene*	<0.050	0.050	07/07/2022	ND	2.21	110	2.00	1.01	
Total Xylenes*	<0.150	0.150	07/07/2022	ND	6.72	112	6.00	1.30	
Total BTEX	<0.300	0.300	07/07/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	69.9-14	0						
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1020	16.0	07/07/2022	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2022	ND	193	96.6	200	1.53	
DRO >C10-C28*	<10.0	10.0	07/07/2022	ND	185	92.6	200	1.81	
EXT DRO >C28-C36	<10.0	10.0	07/07/2022	ND					
Surrogate: 1-Chlorooctane	107 9	6 43-149							
Surrogate: 1-Chlorooctadecane	116 %	6 42.5-16	1						

# Cardinal Laboratories

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	07/06/2022	Sampling Date:	07/06/2022
Reported:	07/07/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-02712 LINE RELEASE REM.	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM		

# Sample ID: SSW -2 (H222899-07)

BTEX 8021B	mg/	'kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/07/2022	ND	2.21	110	2.00	0.983	
Toluene*	<0.050	0.050	07/07/2022	ND	2.18	109	2.00	0.432	
Ethylbenzene*	<0.050	0.050	07/07/2022	ND	2.21	110	2.00	1.01	
Total Xylenes*	<0.150	0.150	07/07/2022	ND	6.72	112	6.00	1.30	
Total BTEX	<0.300	0.300	07/07/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 69.9-14	0						
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	07/07/2022	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2022	ND	193	96.6	200	1.53	
DRO >C10-C28*	<10.0	10.0	07/07/2022	ND	185	92.6	200	1.81	
EXT DRO >C28-C36	<10.0	10.0	07/07/2022	ND					
Surrogate: 1-Chlorooctane	112 9	% 43-149							
Surrogate: 1-Chlorooctadecane	122 9	42.5-16	1						

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\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	07/06/2022	Sampling Date:	07/06/2022
Reported:	07/07/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	Cool & Intact
Project Number:	212C-MD-02712 LINE RELEASE REM.	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO NM		

# Sample ID: ESW -1 (H222899-08)

BTEX 8021B	mg/	kg	Analyze	d By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/07/2022	ND	2.21	110	2.00	0.983	
Toluene*	<0.050	0.050	07/07/2022	ND	2.18	109	2.00	0.432	
Ethylbenzene*	<0.050	0.050	07/07/2022	ND	2.21	110	2.00	1.01	
Total Xylenes*	<0.150	0.150	07/07/2022	ND	6.72	112	6.00	1.30	
Total BTEX	<0.300	0.300	07/07/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	69.9-14	)						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	07/07/2022	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/07/2022	ND	193	96.6	200	1.53	
DRO >C10-C28*	<10.0	10.0	07/07/2022	ND	185	92.6	200	1.81	
EXT DRO >C28-C36	<10.0	10.0	07/07/2022	ND					
Surrogate: 1-Chlorooctane	109 %	% 43-149							
Surrogate: 1-Chlorooctadecane	118 %	42.5-16	!						

# Cardinal Laboratories

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager


### **Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

# Laboratories

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Delivered By: (Cir Sampler - UPS - E	Relinquished By	Relinquished By:	analyses. All claims including service. In no event shall Can	NI FAGE MOTE. I SASA	X	2	6	S	4	CU I	2-	1	Lab I.D.	FOR LAB USE ONLY	Sampler Name:	Project Location:	Project Name:	Project #: 21	Phone #: XW	city: Midla	Address: 90	Project Manager:	Company Name:
rcle One) 3us - Other:	Huertin	out of or related to the perio	Utimages, Carolina's insomy those for negligence and an dinal be liable for incidental o	Danabake Cardinally Sability	E5W-1	E-MSS	55W-1	F5-5	FS-4	FS-3	F3-2	53-1	Samp		(robe	: Lea Louri	Fez Fee #	2C-MD-027	AM H37-334	nd	or w Wall	Christian 1	Tetra Ta
Observed Temp. °C Corrected Temp. °C	Time: 1635 Date: Time:	Date: 7/6/3	y other cause whatsoever shall be r consequental damages, includin	and alloade avaluation remarks for									le I.D.		Huerta	MN H	+OILH Line R	12 Project Owne	-9750Fax #:	State: 1X	st	Llull	5
S.4 Cool Intact	Received By:	Received By:	i deemed waived unless made in writing and g without limitation, business interruptions, l Cardinal repardless of whether such claim	anv claim arising whether based in contract	<	- ~	-	1 2	1 1	1 1	- ~		(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE	MATRIX			clease Remediation	r: COP		Zip: 79701			
ion CHECKED BY:	Wanne		d received by Cardinal within 30 days af loss of use, or loss of profits incurred by is based upon any of the above stated r	or tort shall be limited to the amount or	V -0-6-74	ot-n-1 1	1 7-6-20	176-20	1 7-6-25	1 7-6-20	1 76.22	× 7-6-22	OTHER : ACID/BASE: ICE / COOL OTHER : DATE	PRESERV. SAM	Fax #:	Phone #:	State: Zip:	City:	Address:	Attn: Christian L	Company: Tetfa Te	P.O. #:	BILL TO
Turnaround Time:	REMARKS: Christ	Verbal Result:	ter completion of the applicable client, its subsidiaries, reasons or otherwise.	aid by the client for the	V ~ 00:2 6	3:10 V V	23.00 4 4	+2:40 4 4	12:30 1 1	1 1 00:C	Y Y 01:t	1. 1 00 L	BTEX	IPLING						1411	ch		
Rush Cool Intact O Rush Cool Intact O 24h( No No C	ian. Llull @ tetatech.	No Add'I Phone #: Please provide Email address:				2			~	~	~	<	. Chloride										ANALYSIS REQUE
Sample Condition Observed Temp. °C Corrected Temp. °C	t. Com																					_	IEST



July 08, 2022

CHRISTIAN LLULL TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND, TX 79701

RE: FEZ FEE # 11H

Enclosed are the results of analyses for samples received by the laboratory on 07/07/22 15:52.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	07/07/2022	Sampling Date:	07/07/2022
Reported:	07/08/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02712	Sample Received By:	Shalyn Rodriguez
Project Location:	COP - LEA CO NM		

### Sample ID: NSW -1 (H222926-01)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/08/2022	ND	2.14	107	2.00	2.27	
Toluene*	<0.050	0.050	07/08/2022	ND	2.14	107	2.00	2.59	
Ethylbenzene*	<0.050	0.050	07/08/2022	ND	2.14	107	2.00	1.83	
Total Xylenes*	<0.150	0.150	07/08/2022	ND	6.51	109	6.00	0.899	
Total BTEX	<0.300	0.300	07/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	92.7	% 69.9-140	)						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	07/08/2022	ND	400	100	400	3.92	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/08/2022	ND	187	93.7	200	28.5	
DRO >C10-C28*	<10.0	10.0	07/08/2022	ND	189	94.6	200	28.8	
EXT DRO >C28-C36	<10.0	10.0	07/08/2022	ND					
Surrogate: 1-Chlorooctane	85.5	% 43-149							
Surrogate: 1-Chlorooctadecane	103 9	42.5-161							

### Cardinal Laboratories

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	07/07/2022	Sampling Date:	07/07/2022
Reported:	07/08/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02712	Sample Received By:	Shalyn Rodriguez
Project Location:	COP - LEA CO NM		

### Sample ID: NSW -2 (H222926-02)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/08/2022	ND	2.14	107	2.00	2.27	
Toluene*	<0.050	0.050	07/08/2022	ND	2.14	107	2.00	2.59	
Ethylbenzene*	<0.050	0.050	07/08/2022	ND	2.14	107	2.00	1.83	
Total Xylenes*	<0.150	0.150	07/08/2022	ND	6.51	109	6.00	0.899	
Total BTEX	<0.300	0.300	07/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	93.6%	69.9-14	)						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	07/08/2022	ND	400	100	400	3.92	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/08/2022	ND	187	93.7	200	28.5	
DRO >C10-C28*	<10.0	10.0	07/08/2022	ND	189	94.6	200	28.8	
EXT DRO >C28-C36	<10.0	10.0	07/08/2022	ND					
Surrogate: 1-Chlorooctane	84.6%	% 43-149							
Surrogate: 1-Chlorooctadecane	102 %	6 42.5-16	1						

### Cardinal Laboratories

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	07/07/2022	Sampling Date:	07/07/2022
Reported:	07/08/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02712	Sample Received By:	Shalyn Rodriguez
Project Location:	COP - LEA CO NM		

### Sample ID: NSW -3 (H222926-03)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/08/2022	ND	2.14	107	2.00	2.27	
Toluene*	<0.050	0.050	07/08/2022	ND	2.14	107	2.00	2.59	
Ethylbenzene*	<0.050	0.050	07/08/2022	ND	2.14	107	2.00	1.83	
Total Xylenes*	<0.150	0.150	07/08/2022	ND	6.51	109	6.00	0.899	
Total BTEX	<0.300	0.300	07/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	92.7 9	69.9-14	)						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	07/08/2022	ND	400	100	400	3.92	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/08/2022	ND	187	93.7	200	28.5	
DRO >C10-C28*	<10.0	10.0	07/08/2022	ND	189	94.6	200	28.8	
EXT DRO >C28-C36	<10.0	10.0	07/08/2022	ND					
Surrogate: 1-Chlorooctane	79.5 %	% 43-149							
Surrogate: 1-Chlorooctadecane	97.4 9	42.5-16	l						

### Cardinal Laboratories

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	07/07/2022	Sampling Date:	07/07/2022
Reported:	07/08/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02712	Sample Received By:	Shalyn Rodriguez
Project Location:	COP - LEA CO NM		

### Sample ID: WSW -1 (H222926-04)

BTEX 8021B	mg/	(g	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/08/2022	ND	2.14	107	2.00	2.27	
Toluene*	<0.050	0.050	07/08/2022	ND	2.14	107	2.00	2.59	
Ethylbenzene*	<0.050	0.050	07/08/2022	ND	2.14	107	2.00	1.83	
Total Xylenes*	<0.150	0.150	07/08/2022	ND	6.51	109	6.00	0.899	
Total BTEX	<0.300	0.300	07/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	92.3 %	69.9-140	)						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	07/08/2022	ND	400	100	400	3.92	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/08/2022	ND	187	93.7	200	28.5	
DRO >C10-C28*	<10.0	10.0	07/08/2022	ND	189	94.6	200	28.8	
EXT DRO >C28-C36	<10.0	10.0	07/08/2022	ND					
Surrogate: 1-Chlorooctane	80.3 %	6 43-149							
Surrogate: 1-Chlorooctadecane	97.9 %	6 42.5-161	,						

### Cardinal Laboratories

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	07/07/2022	Sampling Date:	07/07/2022
Reported:	07/08/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	Cool & Intact
Project Number:	212C - MD - 02712	Sample Received By:	Shalyn Rodriguez
Project Location:	COP - LEA CO NM		

### Sample ID: FS - 6 (H222926-05)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/08/2022	ND	2.14	107	2.00	2.27	
Toluene*	<0.050	0.050	07/08/2022	ND	2.14	107	2.00	2.59	
Ethylbenzene*	<0.050	0.050	07/08/2022	ND	2.14	107	2.00	1.83	
Total Xylenes*	<0.150	0.150	07/08/2022	ND	6.51	109	6.00	0.899	
Total BTEX	<0.300	0.300	07/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	92.6 9	% 69.9-14	)						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3400	16.0	07/08/2022	ND	400	100	400	3.92	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/08/2022	ND	187	93.7	200	28.5	
DRO >C10-C28*	<10.0	10.0	07/08/2022	ND	189	94.6	200	28.8	
EXT DRO >C28-C36	<10.0	10.0	07/08/2022	ND					
Surrogate: 1-Chlorooctane	79.7 9	% 43-149							
Surrogate: 1-Chlorooctadecane	96.9 9	42.5-16	!						

### Cardinal Laboratories

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



### **Notes and Definitions**

QR-04	The RPD for the BS/BSD was outside of historical limits.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

### Cardinal Laboratories

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Tetta T	eth	RILL TO	ANAL VOD 0101104	1
Project Manager: Christ	ian LINII	P.O. #		
Address: 901 W Wal	11 54	Company: Tetra T	P/1.	
city: Midland	State: Tx Zip: 79701	Attn: (hristian		
Phone #: 432-234-9	756 Fax #:	Address:		
Project #: 212(-MD-02-	117 Project Owner: COP	City:		
Project Name: FC2 FCC	H011 H	State: Zip:		
Project Location: Lta L	ounty, NM	Phone #:		
Sampler Name: Cabe F	the ser	Fax #:		_
FOR LAB USE ONLY	P. MATRIX	PRESERV. SAM	PLING	_
Lab I.D. Samp	(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER : ACID/BASE: ICE / COOL OTHER : DATE	BTEX TPH Chloridy	
NSM-1	1 1	J 7-7-22	2:00 1 1 1	
NSM-2		5-1-1-2	2:10 4 4 4	
4 WSW - 1	1 1	5-1-1-2	2:30 1 1 1	
0-54 C	-	CC-T-7	2:40 V V V	
analyzes. All claims including those for negligence and any service. In no event shall Cardinal be liable for incidental or affiliates or successors arising out of or related to the perform	other cause whatsoever shall be deemed valved unless made in writing and consequental damages, including without limitation, business interruptions, lo mance of services hereunder by Cardinal, regardless of whether such claim is	In our, small be initialed to the amount paid received by Cardinal within 30 days after lss of use, or loss of profits incurred by cl based upon any of the above stated rea based upon any of the above stated read	og the client for the completion of the applicable ent, its subediaries, sons or otherwise.	1
Hawwill Hugh	Time: 1552 Received By:	Mur	Verbal Result:  Yes No Add'I Phone #: All Results are emailed. Please provide Email address:	
rominumistied by:	Time: Received By:	C	REMARKS: Christian, Llull @ tetratech. Lom	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C, ?? Sample Conditio	on CHECKED BY: (Initials)	Turnaround Time: Standard Bacteria (only) Sample Condition Rush Cool Intact Observed Temp. °C	
FUNM-000 K 3.2 10/07/21	+ Condinal and the line into		orrected Temp. °C	-

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



July 11, 2022

CHRISTIAN LLULL TETRA TECH 901 WEST WALL STREET , STE 100 MIDLAND, TX 79701

RE: FEZ FEE # 11H

Enclosed are the results of analyses for samples received by the laboratory on 07/08/22 13:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

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. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	07/08/2022	Sampling Date:	07/08/2022
Reported:	07/11/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	** (See Notes)
Project Number:	212C - MD - 02712	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

### Sample ID: FS - 3 (2.5') (H222943-01)

BTEX 8021B	mg/	'kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/08/2022	ND	2.09	104	2.00	0.562	
Toluene*	<0.050	0.050	07/08/2022	ND	2.10	105	2.00	1.95	
Ethylbenzene*	<0.050	0.050	07/08/2022	ND	2.10	105	2.00	4.15	
Total Xylenes*	<0.150	0.150	07/08/2022	ND	6.41	107	6.00	2.87	
Total BTEX	<0.300	0.300	07/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	88.5	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	07/11/2022	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	07/11/2022	ND	191	95.5	200	21.8	
DRO >C10-C28*	<10.0	10.0	07/11/2022	ND	183	91.5	200	19.6	
EXT DRO >C28-C36	<10.0	10.0	07/11/2022	ND					
Surrogate: 1-Chlorooctane	94.9	% 43-149							
Surrogate: 1-Chlorooctadecane	101 9	42.5-16	1						

### Cardinal Laboratories

### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	07/08/2022	Sampling Date:	07/08/2022
Reported:	07/11/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	** (See Notes)
Project Number:	212C - MD - 02712	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

### Sample ID: FS - 2 (2.5') (H222943-02)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/08/2022	ND	2.09	104	2.00	0.562	
Toluene*	<0.050	0.050	07/08/2022	ND	2.10	105	2.00	1.95	
Ethylbenzene*	<0.050	0.050	07/08/2022	ND	2.10	105	2.00	4.15	
Total Xylenes*	<0.150	0.150	07/08/2022	ND	6.41	107	6.00	2.87	
Total BTEX	<0.300	0.300	07/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	87.0 9	69.9-14	0						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	07/11/2022	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/11/2022	ND	191	95.5	200	21.8	
DRO >C10-C28*	<10.0	10.0	07/11/2022	ND	183	91.5	200	19.6	
EXT DRO >C28-C36	<10.0	10.0	07/11/2022	ND					
Surrogate: 1-Chlorooctane	94.0 %	% 43-149	,						
Surrogate: 1-Chlorooctadecane	103 %	6 42.5-16	1						

### Cardinal Laboratories

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	07/08/2022	Sampling Date:	07/08/2022
Reported:	07/11/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	** (See Notes)
Project Number:	212C - MD - 02712	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

### Sample ID: FS - 1 (2.5') (H222943-03)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/08/2022	ND	2.09	104	2.00	0.562	
Toluene*	<0.050	0.050	07/08/2022	ND	2.10	105	2.00	1.95	
Ethylbenzene*	<0.050	0.050	07/08/2022	ND	2.10	105	2.00	4.15	
Total Xylenes*	<0.150	0.150	07/08/2022	ND	6.41	107	6.00	2.87	
Total BTEX	<0.300	0.300	07/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	87.3	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	07/11/2022	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/11/2022	ND	191	95.5	200	21.8	
DRO >C10-C28*	<10.0	10.0	07/11/2022	ND	183	91.5	200	19.6	
EXT DRO >C28-C36	<10.0	10.0	07/11/2022	ND					
Surrogate: 1-Chlorooctane	84.9	% 43-149							
Surrogate: 1-Chlorooctadecane	91.8	% 42.5-16	1						

### Cardinal Laboratories

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	07/08/2022	Sampling Date:	07/08/2022
Reported:	07/11/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	** (See Notes)
Project Number:	212C - MD - 02712	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

### Sample ID: FS - 6 (2.5') (H222943-04)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/08/2022	ND	2.09	104	2.00	0.562	
Toluene*	<0.050	0.050	07/08/2022	ND	2.10	105	2.00	1.95	
Ethylbenzene*	<0.050	0.050	07/08/2022	ND	2.10	105	2.00	4.15	
Total Xylenes*	<0.150	0.150	07/08/2022	ND	6.41	107	6.00	2.87	
Total BTEX	<0.300	0.300	07/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	87.3 9	% 69.9-14	0						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	07/11/2022	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/11/2022	ND	191	95.5	200	21.8	
DRO >C10-C28*	<10.0	10.0	07/11/2022	ND	183	91.5	200	19.6	
EXT DRO >C28-C36	<10.0	10.0	07/11/2022	ND					
Surrogate: 1-Chlorooctane	94.6 \$	% 43-149							
Surrogate: 1-Chlorooctadecane	102 %	42.5-16	1						

### Cardinal Laboratories

\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	07/08/2022	Sampling Date:	07/08/2022
Reported:	07/11/2022	Sampling Type:	Soil
Project Name:	FEZ FEE # 11H	Sampling Condition:	** (See Notes)
Project Number:	212C - MD - 02712	Sample Received By:	Tamara Oldaker
Project Location:	COP - LEA CO NM		

### Sample ID: SSW - 1 (3') (H222943-05)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/08/2022	ND	2.09	104	2.00	0.562	
Toluene*	<0.050	0.050	07/08/2022	ND	2.10	105	2.00	1.95	
Ethylbenzene*	<0.050	0.050	07/08/2022	ND	2.10	105	2.00	4.15	
Total Xylenes*	<0.150	0.150	07/08/2022	ND	6.41	107	6.00	2.87	
Total BTEX	<0.300	0.300	07/08/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	86.1 9	% 69.9-140	)						
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	07/11/2022	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/11/2022	ND	191	95.5	200	21.8	
DRO >C10-C28*	<10.0	10.0	07/11/2022	ND	183	91.5	200	19.6	
EXT DRO >C28-C36	<10.0	10.0	07/11/2022	ND					
Surrogate: 1-Chlorooctane	97.7 9	% 43-149							
Surrogate: 1-Chlorooctadecane	107 %	42.5-161	!						

### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



### **Notes and Definitions**

QR-04	The RPD for the BS/BSD was outside of historical limits.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

### Cardinal Laboratories

### \*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Received	by	OCD:	7/29/2022	2:48:40 PM

Released to Imaging: 8/2/2022 3:20:19 PM

Company Name: Project Manager: Address: 90 City: Midland Phone #: 43 Project #: 213 Project Name: Project Location: Sampler Name:	(575) 393-2326 FAX (575) 393 TC+(A TECh Christian cluil I W. Wall St State: T 2-234 - 9756 Fax#: C-MD-0271 Project OV Fez Fee 77 0117 L Lea County NM Lea County NM	-2476 P.O. X Zip: $7970/$ Attn ner: $COP$ City int $Reltase$ Stat Pho Fax	BILL TO #: npany: Tctra Tea : Christian Llu ress: ress: ress: ress: ress: * *
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER :	ACID/BASE: PRESERV.
51700-1	F5-3 (2.5') F5-2 (2.5') F5-6 (2.5') F5-6 (2.5') S5W-1 (3')		1 46-8-L P
PLEASE NOTE: Liability and analyses. All claims including service. In no event shall Care	barnages. Cardinal's liability and client's exclusive reme those for negligence and any other cause whatsoever s innal the liable for incidental or consequental darmages, i	y for any claim arising whether based in contract or lort, all be derived waived unless made in writing and receiv cluding without limitarilon, business interruptions, loss of	shall be limited to the amount paid by ever by Cardinal within 30 days after or use, or loss of profits incurred by clien
Relinquished By:	How to be performance of services instruments of the services of the s	-2.2 Received By:	Malfer A
Delivered By: (Cir Sampler - UPS - B	cle One) Observed Tem us - Other: Corrected Tem	.°C 9,3 Sample Condition	CHECKED BY: T (Initials)

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Laboratories

## APPENDIX G Waste Manifests

	PM			Page 92 of 11
R3600 ENVIRONMENTAL SOLUTIONS Permian Basin	Customer: Customer #: Ordered by: AFE #: PO #: Manifest #: Manif. Date: Hauler: Driver Truck # Card #	CONOCOPHILLIPS CRI2190 CHARLES BEAUVAIS 1 7/6/2022 MCNABB PARTNERS TONY M02	Ticket #: Bid #: Date: Generator: Generator #: Well Ser. #: Well Name: Well Name: Well #: Field: Field #: Rig:	700-1322243 O6UJ9A000JEC 7/6/2022 CONOCOPHILLIPS 42347L FEZ FEE 11H NON-DRILLING
	JOD KEI #		County	
Facility: CRI				
Product / Service		Quant	tity Units	
Contaminated Soil (RCRA Exemp	t)	8.00 yards		
Generator Certification Statement	of Waste Sta	atus		
1 hereby certify that according to the Re 1988 regulatory determination, the abov X RCRA Exempt: Oil Field wastes ge RCRA Non-Exempt: Oil field waste characteristics established in PCP A sec	source Conserve described wa nerated from of which is non- ulations, 40 CF n is attached to	vation and Recovery Act (RCRA ste is: I and gas exploration and produ hazardous that does not exceed t R 261.21-261.24 or listed hazard demonstrate the above-describe	and the US Environ ction operations and the minimum standar lous waste as defined d waste is non-hazard	are not mixed with non-exempt wasted ds for waste hazardous by in 40 CFR, part 261, subpart D, as dous. (Check the appropriate items):
amended. The following documentation MSDS InformationRCRA Ha	azardous Waste	Analysis _ Process Knowled	lge _ Other (Prov	vide description above)
amended. The following documentation MSDS InformationRCRA Ha Driver/ Agent Signature	azardous Waste	Analysis _ Process Knowled R360 Representation	lge _ Other (Prov ve Signature	vide description above)
amended. The following documentation MSDS InformationRCRA Ha Driver/ Agent Signature	azardous Waste	Analysis _ Process Knowled R360 Representativ	lge _ Other (Prov ve Signature	vide description above)
amended. The following documentation MSDS InformationRCRA Ha Driver/ Agent Signature Customer Approval	azardous Waste	Analysis _ Process Knowled R360 Representativ	lge _ Other (Prov ve Signature	vide description above)
amended. The following documentation MSDS InformationRCRA Ha Driver/ Agent Signature Customer Approval	azardous Waste	Analysis _ Process Knowled R360 Representation	lge _ Other (Prov ve Signature OICE!	vide description above)

			Page 93 of 11	
RBS ENVIRONMENTAL SOLUTIONS Permian Basin	Customer: CONOCOPHILLIPS Customer #: CRI2190 Ordered by: CHARLES BEAUVAIS AFE #: PO #: Manifest #: 2 Manif. Date: 7/7/2022 Hauler: MCNABB PARTNERS Driver GUMER Truck # M31 Card # Job Ref #	Ticket #: Bid #: Date: Generator: Generator #: Well Ser. #: Well Name: Well Name: Well #: Field: Field #: Rig: County	700-1322625 O6UJ9A000JEC 7/7/2022 CONOCOPHILLIPS 42347L FEZ FEE 11H NON-DRILLING LEA (NM)	
Facility: CRI				
Product / Service	Quan	itity Units		
Contaminated Soil (RCRA Exempt) 16.00 yards				
Generator Certification Statem	nent of Waste Status e Resource Conservation and Recovery Act (RCR)	A) and the US Enviro	nmental Protection Agency's July	
Generator Certification Statem I hereby certify that according to the 1988 regulatory determination, the a X RCRA Exempt: Oil Field waste RCRA Non-Exempt: Oil field w characteristics established in RCRA amended. The following documenta MSDS Information _ RCRA	<b>Thent of Waste Status</b> e Resource Conservation and Recovery Act (RCR) above described waste is: s generated from oil and gas exploration and prod vaste which is non-hazardous that does not exceed regulations, 40 CFR 261.21-261.24 or listed hazar ation is attached to demonstrate the above-described A Hazardous Waste Analysis Process Knowle	A) and the US Enviro uction operations and the minimum standar dous waste as defined ed waste is non-hazar edge Other (Prov	nmental Protection Agency's July are not mixed with non-exempt wast ds for waste hazardous by in 40 CFR, part 261, subpart D, as dous. (Check the appropriate items): vide description above)	
Generator Certification Statem I hereby certify that according to the 1988 regulatory determination, the a X RCRA Exempt: Oil Field waste RCRA Non-Exempt: Oil field v characteristics established in RCRA amended. The following documenta MSDS Information _ RCRA Driver/ Agent Signature	nent of Waste Status e Resource Conservation and Recovery Act (RCR) above described waste is: s generated from oil and gas exploration and prod vaste which is non-hazardous that does not exceed regulations, 40 CFR 261.21-261.24 or listed hazar ation is attached to demonstrate the above-describe A Hazardous Waste Analysis Process Knowle R360 Representat	A) and the US Enviro uction operations and the minimum standar dous waste as defined ed waste is non-hazar edge Other (Prov ive Signature	nmental Protection Agency's July are not mixed with non-exempt wast ds for waste hazardous by in 40 CFR, part 261, subpart D, as dous. (Check the appropriate items): vide description above)	
Generator Certification Statem I hereby certify that according to the 1988 regulatory determination, the a X RCRA Exempt: Oil Field waste RCRA Non-Exempt: Oil field v characteristics established in RCRA amended. The following documenta MSDS Information _ RCRA Driver/ Agent Signature Customer Approval	mpt) nent of Waste Status e Resource Conservation and Recovery Act (RCR, above described waste is: s generated from oil and gas exploration and prod vaste which is non-hazardous that does not exceed regulations, 40 CFR 261.21-261.24 or listed hazar ation is attached to demonstrate the above-describe A Hazardous Waste Analysis Process Knowle R360 Representat	A) and the US Enviro uction operations and the minimum standar dous waste as defined ed waste is non-hazar edge Other (Prov ive Signature	nmental Protection Agency's July are not mixed with non-exempt wast ds for waste hazardous by in 40 CFR, part 261, subpart D, as dous. (Check the appropriate items): vide description above)	
Generator Certification Statem I hereby certify that according to the 1988 regulatory determination, the a X RCRA Exempt: Oil Field waste RCRA Non-Exempt: Oil field v characteristics established in RCRA amended. The following documenta MSDS Information _ RCRA Driver/ Agent Signature	THIS IS NOT AN INV	A) and the US Enviro uction operations and the minimum standar dous waste as defined ed waste is non-hazar edge Other (Prov ive Signature	nmental Protection Agency's July are not mixed with non-exempt wast ds for waste hazardous by in 40 CFR, part 261, subpart D, as dous. (Check the appropriate items): vide description above)	

Received by OCD: 7/29/2022 2:48:40	0 PM			Page	94 of 119	
R360 ENVIRONMENTAL SOLUTIONS	Customer: Customer #: Ordered by: AFE #: PO #: Manifest #: Manif. Date: Hauler: Driver Truck # Card # Job Ref #	CONOCOPHILLIPS CRI2190 CHARLES BEAUVAIS 2 7/7/2022 MCNABB PARTNERS GUMER M31	Ticket #: Bid #: Date: Generator: Generator #: Well Ser. #: Well Name: Well Name: Well #: Field: Field #: Rig: County	700-1322532 O6UJ9A000JEC 7/7/2022 CONOCOPHILLIPS 42347L FEZ FEE 11H NON-DRILLING LEA (NM)		
Facility: CRI						
Product / Service		Quar	tity Units			
Contaminated Soil (RCRA Exempt)		16.00 yards				
I hereby certify that according to the Re 1988 regulatory determination, the abor X RCRA Exempt: Oil Field wastes ge RCRA Non-Exempt: Oil field waste characteristics established in RCRA reg amended. The following documentatio MSDS Information RCRA H Driver/ Agent Signature	t of waste Sta esource Conserv ve described wa enerated from of the which is non- gulations, 40 CF in is attached to azardous Waste	vation and Recovery Act (RCR, iste is: il and gas exploration and prod hazardous that does not exceed R 261.21-261.24 or listed hazar demonstrate the above-describ Analysis Process Knowle R360 Representat	A) and the US Environ uction operations and the minimum standar dous waste as defined ed waste is non-hazard edge Other (Prov ive Signature	onmental Protection Agency are not mixed with non-exe ds for waste hazardous by l in 40 CFR, part 261, subpa dous. (Check the appropriate vide description above)	's July empt wasto rt D, as e items):	
		neer nepresentat	ive eignature			
Customer Approval						
	THI	S IS NOT AN INV	OICE!			
Approved By:		Date:				

.

# Customer Copy

Northern Delawar 2029 West Jal NH		
WASTE Ticket Start:07/08/2 End:07/08/2 By:owl GROSS	NET	
Contaminated Soil 20 Hauler: McNabb Partners Driver: John Belew Lease: Fez Fee Well: 11H	00	20
AFE #: N/A County, State: LEA (NM) API #: 3002542347 Manifast #: 0187376 Client Company Man: Cha Rig Name & Number: N/A Trucking Co Ticket #: N Truck Type: End Dump UOM: CuYd UOM Count: 20 PF Test Result: Pass H2S Tast: Pass	nrles Beauvais N∕A ▲	
H2S Testing - PASS 01	00	01
Paint Filter - PASS 01	00	01
NORM - PASS 01	00	01
Additional Photos Ol	00	01
Customer: ConocoPhill Driver: Karen Work ID/Licence:	ips Company	
Print name		

...

<b>Received by OCD:</b> 7/29/2022 2:48:40	PM			Page 96 of 119	
R3600 ENVIRONMENTAL SOLUTIONS	Customer: Customer #: Ordered by: AFE #: PO #: Manifest #: Manif. Date: Hauler: Driver Truck # Card # Job Ref #	CONOCOPHILLIPS CRI2190 CHARLES BEAUVAIS 5 7/11/2022 MCNABB PARTNERS GUMER M31	Ticket #: Bid #: Date: Generator: Well Ser. #: Well Name: Well Name: Well #: Field: Field #: Rig: County	700-1323829 O6UJ9A000JEC 7/11/2022 CONOCOPHILLIPS 42347L FEZ FEE 11H NON-DRILLING LEA (NM)	
Facility: CRI					
Product / Service		Quant	tity Units		
Contaminated Soil (RCRA Exemp	ot)	16.00 yards			
Generator Certification Statemen I hereby certify that according to the Ro 1988 regulatory determination, the abov X RCRA Exempt: Oil Field wastes go RCRA Non-Exempt: Oil field wast characteristics established in RCRA reg amended. The following documentatio MSDS Information _ RCRA H	t of Waste Sta esource Conserv- ve described wa enerated from o e which is non- gulations, 40 CF n is attached to azardous Waste	atus vation and Recovery Act (RCRA iste is: il and gas exploration and produ hazardous that does not exceed to R 261.21-261.24 or listed hazard demonstrate the above-describe Analysis Process Knowled	and the US Environ the minimum standar lous waste as defined d waste is non-hazard dge Other (Prov	nmental Protection Agency's July are not mixed with non-exempt wast ds for waste hazardous by in 40 CFR, part 261, subpart D, as dous. (Check the appropriate items): vide description above)	
Driver/ Agent Signature		R360 Representati	ve Signature		
Customer Approval		-			
	THI	S IS NOT AN INV	OICE!		
Approved By:		Date:			



WASTE	ICKET				
Ticket # 129560 Start:07/11/2022 02:15 PM End:07/11/2022 02:24 PM By:owl.angela GROSS TARE					
GROSS	NET				
Contaminated Soil 12 Hauler: McNabb Partners Driver: Gumar Rodriguez Lease: Fez Fee	00	12			
Well: THA AFE #: N/A County, State: LEA (NM) API #: 3002542347 Manifəst #: N/A Client Company Man: Char Rig Name & Number: N/A Trucking Co Ticket #: N/ Truck Type: Dump Truck UOM: CuYd UOM Court: 12 PF Test Result: Pass H2S Test: Pass	rles Beauvais /A				
H2S Testing - PASS 01	00	01			
Paint Filter - PASS 01	00	01			
NORM - PASS 01	00	01			
Additional Photos 01	00	01			
Customer: ConocoPhilli Driver: Karen Work ID/Licence:	ps Company				

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Northern Delaware Basin Landfill 2029 West NM Hwy 128 Jal NM 88252			
WASTE TICKET Ticket # 129593 Start:07/11/2022 04:21 PM End:07/11/2022 04:32 PM			
By:ow GROSS	I.gina TARE	NET	
Contaminated Soil 18 Hauler: McNabb Partners	00	18	
Lease: Fez Fee Well: 011H AFE #: N/A County, State: LEA (NM) API #: 3002542347			
Manifəst #: 7 Client Company Man: Cha Rig Name & Number: N/A Trucking Co Ticket #: N Truck Type: Dump Truck UOM: CuYd UOM Court: 18 PF Test Result: Pass H2S Təst: Pass	rles Beauail /A		
H2S Testing - PASS 01	00	01	
Paint Filter - PASS 01	00	01	
NORM - PASS 01	00	01	
Additional Photos 01	00	01	
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Contaminated Soil 18 Hauler: McNabb Partners Driver: Gumer Rodriguez	00	18
Well: 011H AFE #: N/A County, State: LEA (NM) API #: 3002542347 Manifest #: 8 Client Company Man: Char Rig Name & Number: N/A Trucking Co Ticket #: N/ Truck Type: Dump Truck UOM: DuYd UOM Count: 18 PF Test Result: Pass H2S Test: Pass	les Beauails A	
H2S Testing - PASS 01	00	01
Paint Filter - PASS Ol	00	01
NORM - PASS 01	00	01
Additional Photos 01	00	01

Customer: ConocoPhillips Company Driver: Karen Work ID/Licence:

Print name\_\_\_\_\_ Sign name\_\_\_\_\_



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	2029 West NM Hwy 128
	Jal NM 88252

Ticket # Start:07/11/20	129631 22 06:54 PM		
End:07/11/202	2 06:59 PM		
By:owl.gina			
GRUSS	TARE		NE I
Contaminated Soil			
18	00		18
Hauler: McNabb			
Priver: Mike Bolton			
ease: Fez Fee			
Well: 011H			
AFE #: N/A			
County, State: LEA (NM)			
PI #: 3002542347			
Manifest #: 9			
lient Company Man: Charl	es Beauvais		
Rig Name & Number: N/A			
frucking Co Ticket #: N/A			
fruck Type: Dump Truck			
IOM: CUYd			
IOM Count: 18			
PF Test Result: Pass			
125 Tast: Pass			
100 T 11 - D400			
H25 Testing - PASS	00		01
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### Northern Delaware Basin Landfill 2029 West NM Hwy 128 Jal NM 88252

WASTE TICKET Ticket # 129628 Start:07/11/2022 06:43 PM End:07/11/2022 06:48 PM		
By:OWI.jazmine		
00000	TARE	NET
Contaminated Soil		
18 Hauler: McNabb Partners Driver: Gumer Rodrigue; Lease: Fez Fee Well: O11H	00 5	18
County, State: LEA (NM) API #: 3002542347 Manifəst #: 10 Client Company Man: Cha Rig Name & Number: N/A Trucking Co Ticket #: N Truck Type: Dump Truck UOM: DuYd UOM Count: 18 PF Test Result: Pass H2S Təst: Pass	rles Baeuvais /A	
H2S Testing - PASS 01	00	01
Paint Filter - PASS		
01	00	01
NODM - DASS		
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Additional Photos		
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Customer: ConocoPhillips Driver: Karen Work ID/Licence:	Company	

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## APPENDIX H NMSLO Seed Mixture



United States Department of Agriculture

Natural Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for Lea County, New Mexico



## Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/? cid=nrcs142p2\_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# **How Soil Surveys Are Made**

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and
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#### Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

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### Custom Soil Resource Report

MAP LEGEND		MAP INFORMATION
Area of Interest (AOI) Area of Interest (AOI)	Spoil Area	The soil surveys that comprise your AOI were mapped at 1:20,000.
Soils          Soil Map Unit Polygons         Soil Map Unit Lines         Soil Map Unit Points         Special Point Features         Blowout	<ul> <li>Very Stony Spot</li> <li>Wet Spot</li> <li>Other</li> <li>Special Line Features</li> </ul>	Warning: Soil Map may not be valid at this scale. Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.
☑    Borrow Pit      ☑    Clay Spot      ◇    Closed Depression      ☑    Gravel Pit      ☑    Gravelly Spot	<ul> <li>Streams and Canals</li> <li>Transportation</li> <li>Rails</li> <li>Interstate Highways</li> <li>US Routes</li> </ul>	Please rely on the bar scale on each map sheet for map measurements. Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)
<ul> <li>▲ Lava Flow</li> <li>▲ Marsh or swamp</li> <li>☆ Mine or Quarry</li> </ul>	Major Roads     Local Roads  Background  Aerial Photography	Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.
<ul> <li>Miscellaneous Water</li> <li>Perennial Water</li> <li>Rock Outcrop</li> <li>Saline Spot</li> <li>Sandy Spot</li> </ul>		This product is generated from the USDA-NRCS certified data as of the version date(s) listed below. Soil Survey Area: Lea County, New Mexico Survey Area Data: Version 18, Sep 10, 2021
<ul> <li>Severely Eroded Spot</li> <li>Sinkhole</li> <li>Slide or Slip</li> <li>Sodic Spot</li> </ul>		J:50,000 or larger.         Date(s) aerial images were photographed:         Feb 7, 2020         The orthophoto or other base map on which the soil lines were
		compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## **Map Unit Legend**

Map Un	it Symbol	Map Unit Name	Acres in AOI	Percent of AOI	
BE		Berino-Cacique loamy fine sands association	0.2	100.0%	
Totals for Area	a of Interest		0.2	100.0%	

## **Map Unit Descriptions**

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

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

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

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

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

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

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

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

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

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

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

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

### Lea County, New Mexico

### BE—Berino-Cacique loamy fine sands association

#### Map Unit Setting

National map unit symbol: dmpd Elevation: 3,000 to 3,900 feet Mean annual precipitation: 10 to 13 inches Mean annual air temperature: 60 to 62 degrees F Frost-free period: 190 to 205 days Farmland classification: Not prime farmland

#### **Map Unit Composition**

Berino and similar soils: 50 percent Cacique and similar soils: 40 percent Minor components: 10 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Berino**

#### Setting

Landform: Plains Landform position (three-dimensional): Rise Down-slope shape: Linear Across-slope shape: Linear Parent material: Sandy eolian deposits derived from sedimentary rock over calcareous sandy alluvium derived from sedimentary rock

#### **Typical profile**

A - 0 to 6 inches: loamy fine sand Btk - 6 to 60 inches: sandy clay loam

#### **Properties and qualities**

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 7c Hydrologic Soil Group: B Ecological site: R042XC003NM - Loamy Sand Hydric soil rating: No

#### **Description of Cacique**

#### Setting

Landform: Plains Landform position (three-dimensional): Rise Down-slope shape: Linear Across-slope shape: Linear Parent material: Calcareous eolian deposits derived from sedimentary rock

#### **Typical profile**

A - 0 to 12 inches: loamy fine sand Bt - 12 to 28 inches: sandy clay loam Bkm - 28 to 38 inches: cemented material

#### **Properties and qualities**

Slope: 0 to 3 percent
Depth to restrictive feature: 20 to 40 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 3.6 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 7c Hydrologic Soil Group: C Ecological site: R042XC004NM - Sandy Hydric soil rating: No

#### **Minor Components**

#### Maljamar

*Percent of map unit:* 6 percent *Ecological site:* R077CY028TX - Limy Upland 16-21" PZ *Hydric soil rating:* No

#### Palomas

Percent of map unit: 4 percent Ecological site: R042XC003NM - Loamy Sand Hydric soil rating: No

# SLO Seed Mix

## 1 REVEGETATION PLANS

The following Revegetation Plans were developed for revegetation of sites in southeastern New Mexico. To determine which revegetation plan is appropriate follow procedures in the section titled Determining the Revegetation Plan.

Revegetation Plans contain seed mixtures, as well as seed bed preparation and planting requirements. The detailed instructions for seedbed preparation and planting can be found in the section Revegetation Techniques.

REVEGTATION PLANS	CODE	SOIL TEXTURES
Clay	С	Clay, Silty Clay, Stony Silty Clay, Clay Loam, Silty Clay Loam (including saline and sodic Clay soils)
Loam	L	Silty Loam, Cobbly Silt Loam, Stony Silt Loam, Silt, Loam, Sandy, Clay Loam
Sandy Loam	SL	Very Fine Sandy Loam, Fine Sandy Loam, Cobbly Fine Sandy Loam, Sandy Loam, Cobbly Sandy Loam, Gravelly Fine Sandy Loam, Very Gravelly Fine Sand Loam, Stony Fine Sandy Loam, Stony Sandy Loam
Shallow	SH	Rocky Loam, Cobbly Loam
Course	CS	Gravelly Loam, very Gravelly Loam, Gravelly Sandy Loam, Very Gravelly Sandy Loam, Stony Loam, Stony Sandy Loam
Sandy	S	Loamy Fine Sand, Loam Sand, Very Gravelly Loamy Fine Sand
Blow Sand	BS	Fine Sand, Sand, Coarse Sand
Mountain Meadow	MM	Clay, Loam
Mountain Upland	MU	Clay Loam, Loam

Table 3 - Revegetation Plans, Codes, and Soil Types for Southeastern New Mexico



Version 1 - 200808

New Mexico State Land Office Southeastern New Mexico Revegetation Handbook

# **NMSLO Seed Mix**

# Sandy Loam (SL)

### SANDY LOAM (SL) SITES SEED MIXTURE:

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

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

• VNS, Southern – No Variety Stated, seed should be from a southern latitude collection of this species.

• Double above seed rates for broadcast or hydroseeding.

• If Parry penstemon is not available, substitute firecracker penstemon.

- If desert globemallow is not available, substitute scarlet globemallow or Nelson globemallow.
- If a species is not available, provide a suggested substitute to the New Mexico Land Office for approval. Increasing all other species proportionately may be acceptable.



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

Operator:	OGRID:
COG OPERATING LLC	229137
600 W Illinois Ave	Action Number:
Midland, TX 79701	129846
	Action Type:
	[C-141] Release Corrective Action (C-141)
CONDITIONS	

Created	Condition	Conditio
Ву		Date
jnobui	Closure Report Approved.	8/2/20

CONDITIONS

Action 129846