



September 10, 2024

New Mexico Oil Conservation Division

1220 South St. Francis Drive
Santa Fe, New Mexico 87505

**Re: Remediation Work Plan
Poker Lake Unit 22 DTD Pad D
Incident Number NAPP2411631990
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared the following *Remediation Work Plan (Work Plan)* to document the site assessment, delineation and soil sampling activities completed to date and propose a work plan to address waste-containing soil identified at the Poker Lake Unit 22 DTD Pad D (Site). The purpose of the remediation activities was to determine the presence or absence of impacted and/or waste-containing soil resulting from a produced water release at the Site. The following *Work Plan* proposes to confirm depth to groundwater via temporary soil boring and remove waste-containing soil identified within the release extent.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit B, Section 22, Township 24 South, Range 30 East, in Eddy County, New Mexico (32.20997°, -103.86489°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On April 9, 2024, a pump failure resulted in the release of 18 barrels (bbls) of produced water into a temporary lined containment area, onto the pad surface, and into the adjacent pasture area. No fluids were recovered. XTO submitted an Initial C-141 Application (C-141) on April 25, 2024. The release was assigned Incident Number NAPP2411631990.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented below and potential site receptors are identified on Figure 1.

Depth to groundwater at the Site is greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. On March 26, 1959, a USGS groundwater monitoring well (USGS 321203103511801) was measured and recorded with a depth to groundwater as 423.1 feet bgs. The total depth of the well is 474 feet bgs. The location of the well is approximately 0.83 miles southeast of the release and is depicted on Figure 1. The Well Record and Log is included in Appendix A.

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The closest continuously flowing or significant watercourse to the Site is a dry wash, located approximately 1,873 feet north of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area).

Based on the results of the Site Characterization, the following NMOCD Table I Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total Petroleum Hydrocarbons (TPH) - gasoline range organics (GRO) and diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

A reclamation standard of 600 mg/kg chloride and 100 mg/kg TPH applies to the top 4 feet of the pasture area that was impacted by the release, per NMAC 19.15.29.13.D (1) for the top 4 feet of areas that will be reclaimed following remediation.

SITE ASSESSMENT AND DELINEATION ACTIVITIES

On April 9, 2024 Ensolum personnel conducted a Site visit to evaluate the release extent based on information provided from XTO and visual observations. The release extent was mapped utilizing a handheld Global Positioning System (GPS) unit and is depicted on Figure 2. Photographic documentation was completed during the Site visits and a photographic log is included in Appendix B.

On April 25, 2024, Ensolum returned to the Site to take assessment samples from within the release. Five delineation soil samples (SS01 through SS05) were collected from a depth of 0.5 feet bgs. The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The delineation soil sample locations were mapped utilizing a GPS unit and are depicted on Figure 2.

On May 21 and 22, 2024, Ensolum personnel returned to the site to oversee delineation activities. Delineation boreholes BH01 through BH04 and potholes PH01 through PH05 were advanced via hand auger and backhoe to assess the vertical extent of the release to a maximum depth of 1-foot bgs. Delineation soil samples were collected from each pothole at depths ranging from 0.5 feet to 1-foot bgs. Delineation soil sample PH04 was taken at the point of release below the removed temporary lined containment. Additional delineation soil samples (SS06 through SS11) were taken surrounding the release to confirm the lateral extent of the release. Field screening results and observations were logged on lithologic/soil sampling logs, which are included in Appendix C. The delineation soil sample locations were mapped utilizing a GPS unit and are depicted on Figure 2.

Based on field screenings, no impacted or waste-containing soil was identified in the pasture areas. Vegetation in this area appears to be healthy and not impacted by the release. In order to confirm the absence of impacted or waste-containing soil, twenty-three 5-point composite confirmation soil samples were taken from the pasture area that represented no more than 200 square feet of the release extent in an approximate 4,587 square foot area. The 5-point composite samples were collected by placing five

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equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS06, and FS08 through FS24 were collected at a depth of 0.5 feet bgs. Please note FS07 was inadvertently skipped in the sampling nomenclature. The soil samples were field screened for VOCs and chloride and mapped with a handheld GPS unit. The confirmation soil sample locations are depicted on Figure 3.

All soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico, for analysis of the following contaminants of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following Standards Method SM4500.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for all delineation soil samples indicated all COCs were compliant with the Closure Criteria. All COC concentrations for terminal soil samples of the delineation boreholes and potholes were in compliance with the Closure Criteria and reclamation requirement, successfully defining the vertical extent of the release. All COC concentrations for the delineation soil samples collected outside the release extent met Closure Criteria and reclamation requirement, successfully defining the lateral extent of the release. Laboratory analytical results for all COC concentrations for composite soil samples FS01 through FS24 were in compliance with the strictest Table 1 Closure Criteria, verifying the absence of impacted or waste-containing soil in the pasture area. The laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included in Appendix D.

PROPOSED REMEDIATION WORK PLAN

In order to confirm depth to groundwater is greater than 100 feet bgs at the Site, XTO proposes to advance a soil boring to a depth of 105 feet bgs. The soil boring will be located within 0.5 miles of the Site and a field geologist will log and describe soils continuously. The soil boring will be left open for over 72 hours to allow for equilibration of groundwater levels within the temporary boring casing. After the 72-hour waiting period, depth to groundwater will be assessed and the soil boring will be backfilled following New Mexico Office of the State Engineer (NMOSE) approved procedures. A well record or soil boring log will be included in the follow-up Closure Report.

The delineation soil sampling results indicate soil containing elevated chloride concentrations exist on pad across an approximate 18,800 square foot area and extends to depths ranging from 0.5 feet to 1-foot bgs. As such, XTO proposes to complete the following remediation activities:

- Excavation of waste-containing soil to a depth of 1-foot bgs. Excavation will proceed laterally until sidewall samples confirm all COC concentrations are compliant with the Closure Criteria and reclamation requirement.
- The area below the temporary lined containment that has been removed will be composite sampled to confirm the absence of waste-containing soil. If waste-containing soil is located, it will be included in the excavation area increasing the total area by 4,335 square feet and total volume by 160 cubic yards.
- Due to the estimated size of the excavation, XTO requests a variance for the frequency of confirmation soil samples. XTO proposes five-point composite samples to be collected at a sampling frequency of 400 square feet along the excavation floor and a sampling frequency of

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200 square feet along the excavation sidewalls. The proposed sampling frequency would reduce the total amount of samples from approximately 118 samples (200 square feet) to approximately 62 samples. The soil samples will be handled as described above and analyzed for all COCs. The 200 square foot and 400 square foot sampling grids are depicted in Figure 4a and Figure 4b, respectively, based on the proposed excavation extent.

- An estimated 700 cubic yards of waste-containing soil will be excavated and disposed of at the R360 disposal facility in Hobbs, New Mexico.
- The excavation will be backfilled with locally procured material and recontoured to match pre-existing conditions.
- Vegetation in the pasture area of the release will continue to be monitored and may be re-seeded as necessary.

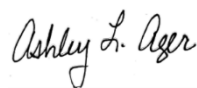
XTO plans to drill the depth to water boring in November 2024, once the schedule is confirmed with the licensed drillers. XTO will complete the excavation and soil sampling activities within 90 days of the date of approval of this *Work Plan* by the NMOCD.

If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely,
Ensolum, LLC



Tracy Hillard
Staff Engineer



Ashley Ager, PG, MS
Program Director

cc: Amy Ruth, XTO
Amanda Garcia, XTO
BLM

Appendices:

Figure 1	Site Location Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Confirmation Soil Sample Locations
Figure 4a	Proposed Excavation Extent with 200 Square Foot Sampling Grid
Figure 4b	Proposed Excavation Extent with 400 Square Foot Sampling Grid
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Photographic Log
Appendix C	Lithologic / Soil Sampling Logs
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation

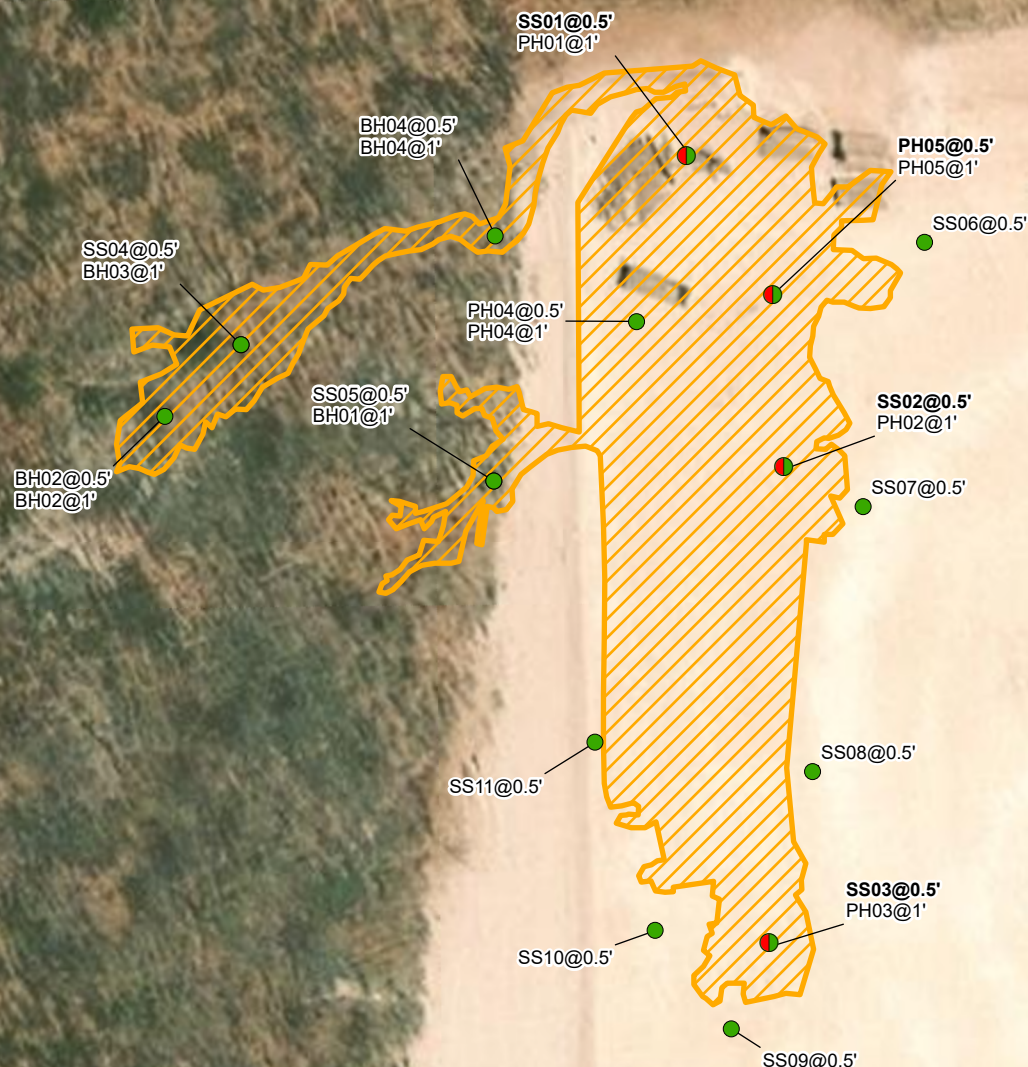


FIGURES



Legend

- Delineation Soil Sample in Compliance with Closure Criteria
- Delineation Soil Sample with Concentrations Previously Exceeding Closure Criteria
- Release Extent



Notes:
 Sample ID @ Depth Below Ground Surface.
 Samples in bold indicate sample exceeded applicable closure criteria.

0 15 30 60 90 120
 Feet

Sources: Environmental Systems Research Institute (ESRI)



Delineation Soil Sample Locations

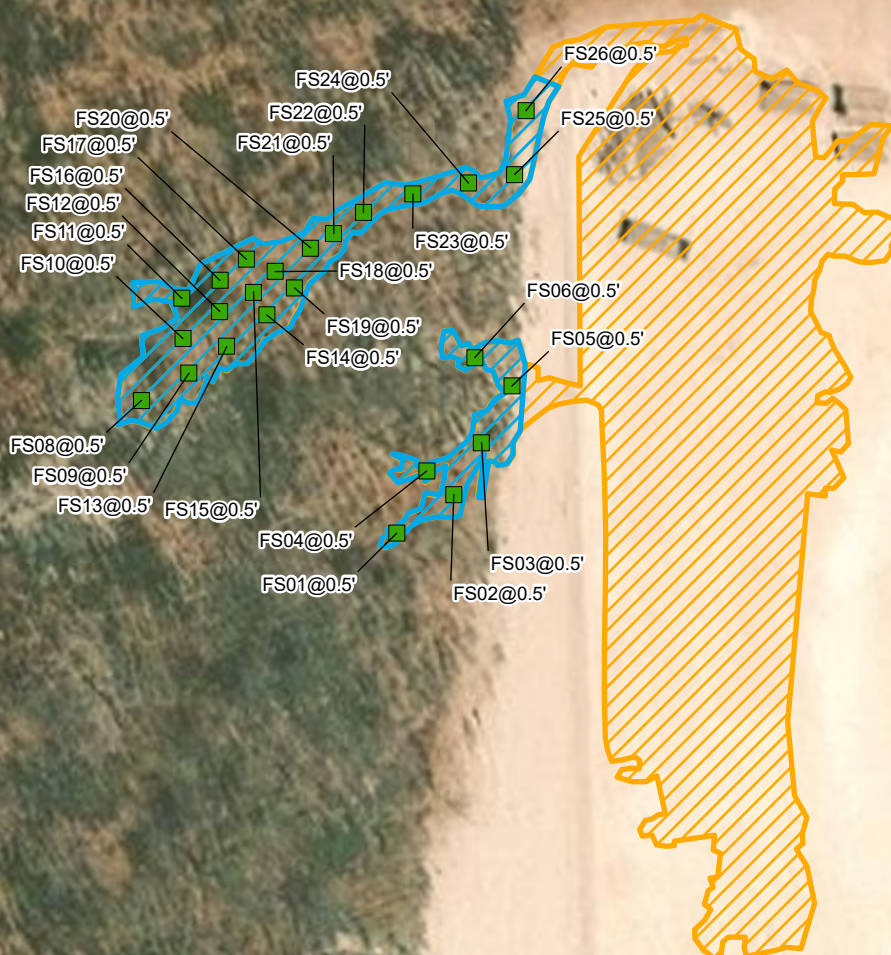
XTO Energy, Inc
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 Eddy County, New Mexico

FIGURE

2

Legend

- Confirmation Floor
- Sample in Compliance with Closure Criteria
- Release Extent
- Excavation Extent



Notes:
Sample ID @ Depth Below Ground Surface.

0 15 30 60 90 120
Feet

Sources: Environmental Systems Research Institute (ESRI)

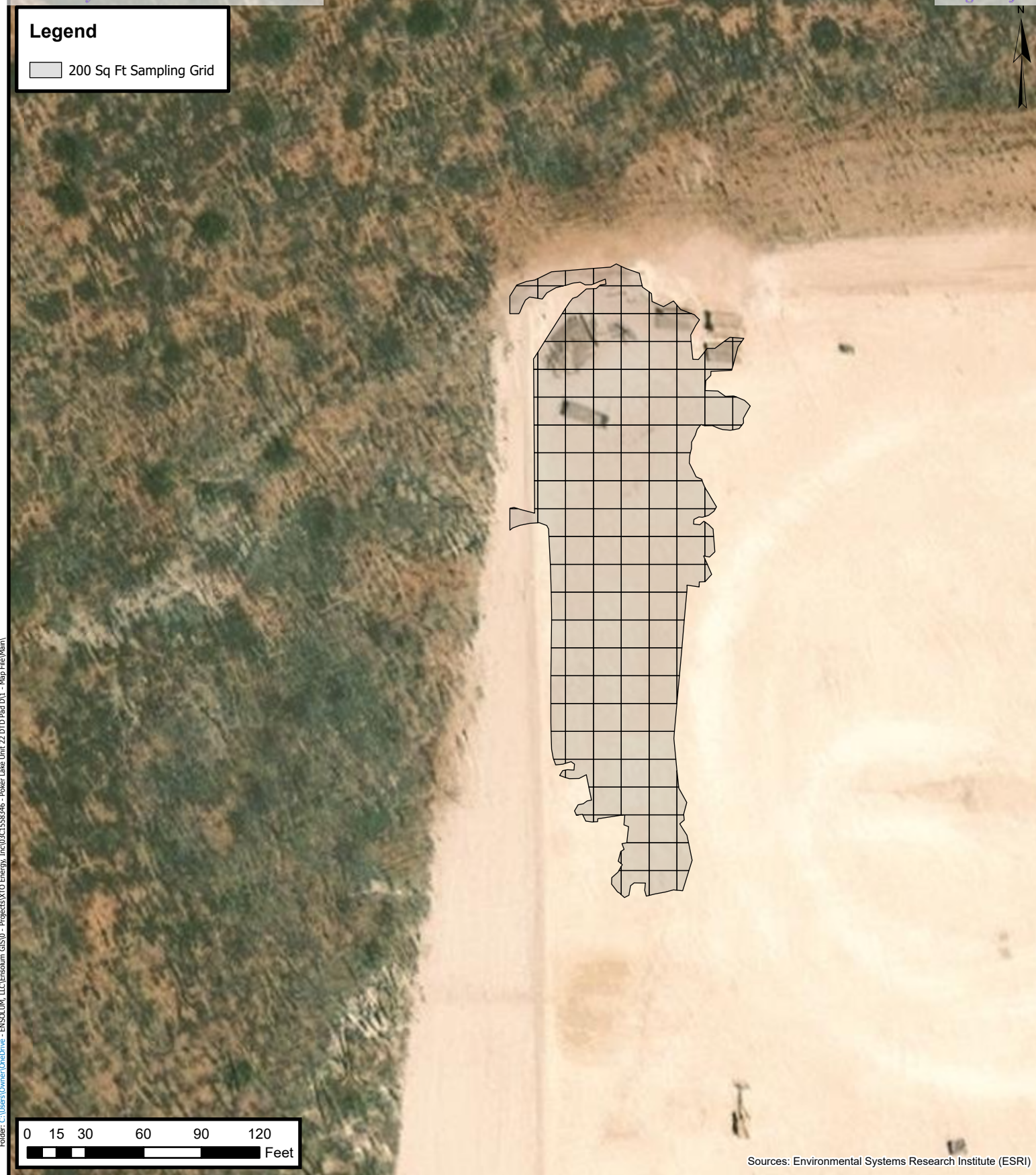


Confirmation Soil Sample Locations

XTO Energy, Inc
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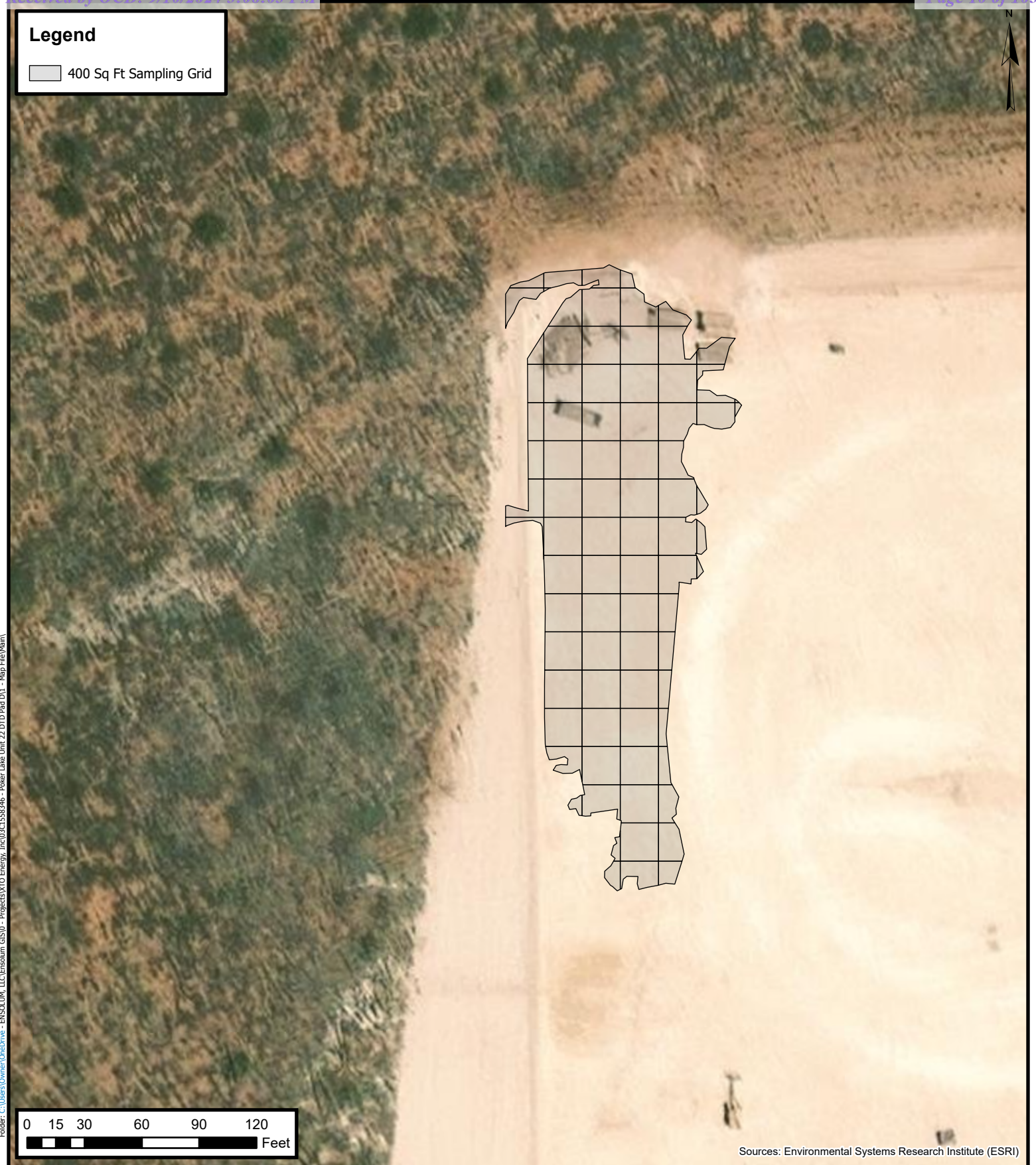
FIGURE

3



**Proposed Excavation Extent
with 200 Square Foot Sampling Grid**
XTO Energy, Inc
Poker Lake Unit 22 DTD Pad D
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Unit B, Sec 22, T24S, R30E
Eddy County, New Mexico

**FIGURE
4a**



**Proposed Excavation Extent
with 400 Square Foot Sampling Grid**
XTO Energy, Inc
Poker Lake Unit 22 DTD Pad D
Incident Number: nAPP2411631990
Unit B, Sec 22, T24S, R30E
Eddy County, New Mexico

**FIGURE
4b**



TABLES



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
PLU 22 DTD Pad D
XTO Energy, Inc
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Delineation Soil Samples										
SS01	04/26/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,360
PH01	05/22/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SS02	04/26/2024	0.5	<0.050	<0.300	<10.0	34.1	<10.0	34.1	34.1	1,300
PH02	05/22/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	320
SS03	04/26/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	672
PH03	05/22/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	272
SS04	04/26/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
BH03	05/21/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
SS05	04/26/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
BH01	05/21/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
SS06	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
SS07	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
SS08	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
SS09	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
SS10	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
SS11	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
BH02	05/21/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
BH02	05/21/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
BH04	05/21/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	240
BH04	05/21/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208
PH04	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	496
PH04	05/22/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	352
PH05	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,260
PH05	05/22/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	480
Confirmation Soil Samples										
FS01	05/21/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS02	05/21/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS03	05/21/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
FS04	05/21/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	256



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
PLU 22 DTD Pad D
XTO Energy, Inc
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
FS05	05/21/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
FS06	05/21/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS08	05/21/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS09	05/21/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS10	05/21/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192
FS11	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS12	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS13	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS14	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	240
FS15	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208
FS16	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	336
FS17	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208
FS18	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
FS19	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208
FS20	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208
FS21	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FS22	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS23	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
FS24	05/22/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	240

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation requirement where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities



APPENDIX A

Referenced Well Records



USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category:
Groundwater

Geographic Area:
United States

GO

Click to hideNews Bulletins

- Explore the NEW [USGS National Water Dashboard](#) interactive map to access real-time water data from over 13,500 stations nationwide.

Groundwater levels for the Nation

i Important: [Next Generation Monitoring Location Page](#)

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 321203103511801

Minimum number of levels = 1
[Save file of selected sites](#) to local disk for future upload

USGS 321203103511801 24S.30E.23.3124143

Eddy County, New Mexico
Latitude 32°12'03", Longitude 103°51'18" NAD27
Land-surface elevation 3,423 feet above NAVD88
The depth of the well is 474 feet below land surface.
This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement
1959-03-26			D	62610	2998.18	NGVD29	1	Z		
1959-03-26			D	62611	2999.90	NAVD88	1	Z		
1959-03-26			D	72019	423.10		1	Z		

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined

Section	Code	Description
Water-level approval status	A	Approved for publication -- Processing and review completed.

[Questions or Comments](#)
[Help](#)
[Data Tips](#)
[Explanation of terms](#)
[Subscribe for system changes](#)

[Accessibility](#) [FOIA](#) [Privacy](#) [Policies and Notices](#)
[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)
Title: Groundwater for USA: Water Levels
URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)
Page Last Modified: 2024-07-03 12:20:34 EDT
0.39 0.37 nadww02



APPENDIX B

Photographic Log

**Photographic Log**

XTO Energy, Inc
Poker Lake Unit 22 DTD Pad D
NAPP2411631990



Photograph: 1 Date: 4/9/2024
Description: Soil staining in release footprint
View: North



Photograph: 2 Date: 4/25/2024
Description: Delineation sampling activities
View: Southwest



Photograph: 3 Date: 5/21/2024
Description: Confirmation sampling activities
View: Southeast





Photograph: 4 Date: 5/22/2024
Description: Delineation activities
View: Northwest





APPENDIX C


Lithologic Soil Sampling Logs


 ENSOLUM Environmental, Engineering and Hydrogeologic Consultants		Sample Name: BH01		Date: 5/21/2024				
		Site Name: Poker Lake Unit 22 DTD Pad D						
		Incident Number: NAPP2411631990						
		Job Number: 03C1558326						
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: TH		Method: Hand Auger		
Coordinates: 32.210014, -103.865368				Hole Diameter: 4"		Total Depth: 1' bgs		
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included in all chloride screenings.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	196	0.0	N	SS05	0.5	0	SP-SC	0-1' SILTY SAND with clay, dark brown, poorly graded, no stain, no odor.
M	<156.8	0.0	N	BH01	1	1		
						TD		Total Depth @ 1' bgs.


 ENSOLUM Environmental, Engineering and Hydrogeologic Consultants		Sample Name: BH02		Date: 5/21/2024				
		Site Name: Poker Lake Unit 22 DTD Pad D						
		Incident Number: NAPP2411631990						
		Job Number: 03C1558326						
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: TH		Method: Hand Auger		
Coordinates: 32.210079, -103.865737				Hole Diameter: 4"		Total Depth: 1' bgs		
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included in all chloride screenings.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	<158.6	0.0	N	BH02	0.5	0	SP	0-1' SILTY SAND, dark brown, poorly graded, no stain, no odor.
M	<156.8	0.0	N	BH02	1	1		
						TD		
								Total Depth @ 1' bgs.


 ENSOLUM Environmental, Engineering and Hydrogeologic Consultants		Sample Name: BH03		Date: 5/21/2024				
		Site Name: Poker Lake Unit 22 DTD Pad D						
		Incident Number: NAPP2411631990						
		Job Number: 03C1558326						
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: TH		Method: Hand Auger		
Coordinates: 32.210194, -103.865573				Hole Diameter: 4"		Total Depth: 1' bgs		
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included in all chloride screenings.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	196	0.0	N	SS04	0.5	0	SP-SC	0-1' SILTY SAND with clay, dark brown, poorly graded, no stain, no odor.
M	156.8	0.0	N	BH03	1	1		
						TD		


 ENSOLUM Environmental, Engineering and Hydrogeologic Consultants		Sample Name: BH04		Date: 5/21/2024				
		Site Name: Poker Lake Unit 22 DTD Pad D						
		Incident Number: NAPP2411631990						
		Job Number: 03C1558326						
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: TH		Method: Hand Auger		
Coordinates: 32.210248, -103.865364				Hole Diameter: 4"		Total Depth: 1' bgs		
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included in all chloride screenings.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	190.4	0.0	N	BH04	0.5	0	SP-SC	0-1' SILTY SAND with clay, dark brown, poorly graded, no stain, no odor.
M	156.8	0.0	N	BH04	1	1		
						TD		

 ENSOLUM Environmental, Engineering and Hydrogeologic Consultants		Sample Name: PH01		Date: 5/22/2024				
		Site Name: Poker Lake Unit 22 DTD Pad D						
		Incident Number: NAPP2411631990						
		Job Number: 03C1558326						
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: TH		Method: Backhoe		
Coordinates: 32.210323, -103.865125				Hole Diameter: ~1.5'		Total Depth: 1' bgs		
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included in all chloride screenings.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	2,200	0.6	N	SS01	0.5	0	CCHE	0-1' CALICHE, pad fill, no stain, no odor.
D	<156.8	0.0	N	PH01	1	1		
						TD		Total Depth @ 1' bgs.

 ENSOLUM Environmental, Engineering and Hydrogeologic Consultants		Sample Name: PH02		Date: 5/22/2024				
		Site Name: Poker Lake Unit 22 DTD Pad D						
		Incident Number: NAPP2411631990						
		Job Number: 03C1558326						
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: TH		Method: Backhoe		
Coordinates: 32.210032, -103.865056				Hole Diameter: ~1.5'		Total Depth: 1' bgs		
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included in all chloride screenings.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE	0-1' CALICHE, pad fill, no stain, no odor.
D	1,254	0.7	N	SS02	0.5			
D	308	0.0	N	PH02	1	1		
						TD		Total Depth @ 1' bgs.

 ENSOLUM Environmental, Engineering and Hydrogeologic Consultants		Sample Name: PH03		Date: 5/22/2024				
		Site Name: Poker Lake Unit 22 DTD Pad D						
		Incident Number: NAPP2411631990						
		Job Number: 03C1558326						
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: TH		Method: Backhoe		
Coordinates: 32.209580, -103.865067				Hole Diameter: ~1.5'		Total Depth: 1' bgs		
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included in all chloride screenings.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	700	0.0	N	SS03	0.5	0	CCHE	0-1' CALICHE, pad fill, no stain, no odor.
D	229.6	0.0	N	PH03	1	1		
						TD		Total Depth @ 1' bgs.

 ENSOLUM Environmental, Engineering and Hydrogeologic Consultants		Sample Name: PH04		Date: 5/22/2024				
		Site Name: Poker Lake Unit 22 DTD Pad D						
		Incident Number: NAPP2411631990						
		Job Number: 03C1558326						
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: TH		Method: Backhoe		
Coordinates: 32.210165, -103.865206				Hole Diameter: ~1.5'		Total Depth: 1' bgs		
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included in all chloride screenings.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE	0-1' CALICHE, pad fill, no stain, no odor.
D	554.4	0.0	N	PH04	0.5			
D	268.6	0.0	N	PH04	1	1		
						TD		Total Depth @ 1' bgs.

 ENSOLUM Environmental, Engineering and Hydrogeologic Consultants		Sample Name: PH05		Date: 5/22/2024				
		Site Name: Poker Lake Unit 22 DTD Pad D						
		Incident Number: NAPP2411631990						
		Job Number: 03C1558326						
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: TH		Method: Backhoe		
Coordinates: 32.210189, -103.865053				Hole Diameter: ~1.5'		Total Depth: 1' bgs		
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included in all chloride screenings.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE	0-1' CALICHE, pad fill, no stain, no odor.
D	610.4	0.0	N	PH05	0.5			
D	448	0.0	N	PH05	1	1		
						TD		Total Depth @ 1' bgs.



APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation



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

May 02, 2024

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: PLU 22 DTD PAD D

Enclosed are the results of analyses for samples received by the laboratory on 04/26/24 13:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 04/26/2024
Reported: 05/02/2024
Project Name: PLU 22 DTD PAD D
Project Number: 03C1558346
Project Location: XTO

Sampling Date: 04/25/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SS 01 0.5' (H242245-01)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/30/2024	ND	2.22	111	2.00	5.78	
Toluene*	<0.050	0.050	04/30/2024	ND	2.25	113	2.00	4.41	
Ethylbenzene*	<0.050	0.050	04/30/2024	ND	2.25	112	2.00	4.29	
Total Xylenes*	<0.150	0.150	04/30/2024	ND	6.82	114	6.00	3.97	
Total BTEX	<0.300	0.300	04/30/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2360	16.0	04/30/2024	ND	432	108	400	7.69		

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	04/30/2024	ND	208	104	200	1.58	
DRO >C10-C28*	<10.0	10.0	04/30/2024	ND	189	94.6	200	6.21	
EXT DRO >C28-C36	<10.0	10.0	04/30/2024	ND					

Surrogate: 1-Chlorooctane 89.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.7 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 04/26/2024
Reported: 05/02/2024
Project Name: PLU 22 DTD PAD D
Project Number: 03C1558346
Project Location: XTO

Sampling Date: 04/25/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SS 02 0.5' (H242245-02)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/30/2024	ND	2.22	111	2.00	5.78		
Toluene*	<0.050	0.050	04/30/2024	ND	2.25	113	2.00	4.41		
Ethylbenzene*	<0.050	0.050	04/30/2024	ND	2.25	112	2.00	4.29		
Total Xylenes*	<0.150	0.150	04/30/2024	ND	6.82	114	6.00	3.97		
Total BTEX	<0.300	0.300	04/30/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1300	16.0	04/30/2024	ND	432	108	400	7.69		

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	04/30/2024	ND	208	104	200	1.58	
DRO >C10-C28*	34.1	10.0	04/30/2024	ND	189	94.6	200	6.21	
EXT DRO >C28-C36	<10.0	10.0	04/30/2024	ND					

Surrogate: 1-Chlorooctane 76.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 68.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 04/26/2024
Reported: 05/02/2024
Project Name: PLU 22 DTD PAD D
Project Number: 03C1558346
Project Location: XTO

Sampling Date: 04/25/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SS 03 0.5' (H242245-03)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/30/2024	ND	2.05	103	2.00	0.0123		
Toluene*	<0.050	0.050	04/30/2024	ND	2.10	105	2.00	1.56		
Ethylbenzene*	<0.050	0.050	04/30/2024	ND	2.12	106	2.00	1.12		
Total Xylenes*	<0.150	0.150	04/30/2024	ND	6.20	103	6.00	1.20		
Total BTEX	<0.300	0.300	04/30/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	672	16.0	04/30/2024	ND	432	108	400	7.69		

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	04/30/2024	ND	208	104	200	1.58	
DRO >C10-C28*	<10.0	10.0	04/30/2024	ND	189	94.6	200	6.21	
EXT DRO >C28-C36	<10.0	10.0	04/30/2024	ND					

Surrogate: 1-Chlorooctane 87.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 04/26/2024
Reported: 05/02/2024
Project Name: PLU 22 DTD PAD D
Project Number: 03C1558346
Project Location: XTO

Sampling Date: 04/25/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SS 04 0.5' (H242245-04)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/30/2024	ND	2.05	103	2.00	0.0123		
Toluene*	<0.050	0.050	04/30/2024	ND	2.10	105	2.00	1.56		
Ethylbenzene*	<0.050	0.050	04/30/2024	ND	2.12	106	2.00	1.12		
Total Xylenes*	<0.150	0.150	04/30/2024	ND	6.20	103	6.00	1.20		
Total BTEX	<0.300	0.300	04/30/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	04/30/2024	ND	432	108	400	7.69		

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	04/30/2024	ND	208	104	200	1.58	
DRO >C10-C28*	<10.0	10.0	04/30/2024	ND	189	94.6	200	6.21	
EXT DRO >C28-C36	<10.0	10.0	04/30/2024	ND					

Surrogate: 1-Chlorooctane 71.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 63.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
TRACY HILLARD
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 04/26/2024
Reported: 05/02/2024
Project Name: PLU 22 DTD PAD D
Project Number: 03C1558346
Project Location: XTO

Sampling Date: 04/25/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SS 05 0.5' (H242245-05)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/30/2024	ND	2.05	103	2.00	0.0123		
Toluene*	<0.050	0.050	04/30/2024	ND	2.10	105	2.00	1.56		
Ethylbenzene*	<0.050	0.050	04/30/2024	ND	2.12	106	2.00	1.12		
Total Xylenes*	<0.150	0.150	04/30/2024	ND	6.20	103	6.00	1.20		
Total BTEX	<0.300	0.300	04/30/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	04/30/2024	ND	432	108	400	7.69		

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	04/30/2024	ND	208	104	200	1.58	
DRO >C10-C28*	<10.0	10.0	04/30/2024	ND	189	94.6	200	6.21	
EXT DRO >C28-C36	<10.0	10.0	04/30/2024	ND					

Surrogate: 1-Chlorooctane 81.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 72.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

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

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

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



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

May 29, 2024

TRACY HILLARD

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: PLU 22 DTD PAD D

Enclosed are the results of analyses for samples received by the laboratory on 05/23/24 13:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/29/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: PH 01 1' (H242874-01)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	2.04	102	2.00	15.1	
Toluene*	<0.050	0.050	05/26/2024	ND	2.05	103	2.00	10.3	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.09	104	2.00	8.54	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.13	102	6.00	7.95	
Total BTEX	<0.300	0.300	05/26/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	05/29/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	191	95.4	200	0.0335	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	193	96.4	200	1.96	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 95.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/29/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: PH 02 1' (H242874-02)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/26/2024	ND	2.04	102	2.00	15.1		
Toluene*	<0.050	0.050	05/26/2024	ND	2.05	103	2.00	10.3		
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.09	104	2.00	8.54		
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.13	102	6.00	7.95		
Total BTEX	<0.300	0.300	05/26/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	05/29/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	191	95.4	200	0.0335	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	193	96.4	200	1.96	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 96.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/29/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: PH 03 1' (H242874-03)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/26/2024	ND	2.04	102	2.00	15.1		
Toluene*	<0.050	0.050	05/26/2024	ND	2.05	103	2.00	10.3		
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.09	104	2.00	8.54		
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.13	102	6.00	7.95		
Total BTEX	<0.300	0.300	05/26/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	05/29/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	191	95.4	200	0.0335	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	193	96.4	200	1.96	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 98.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/29/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: PH 04 0.5' (H242874-04)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/26/2024	ND	2.04	102	2.00	15.1		
Toluene*	<0.050	0.050	05/26/2024	ND	2.05	103	2.00	10.3		
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.09	104	2.00	8.54		
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.13	102	6.00	7.95		
Total BTEX	<0.300	0.300	05/26/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	496	16.0	05/29/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	191	95.4	200	0.0335	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	193	96.4	200	1.96	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 99.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/29/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: PH 04 1' (H242874-05)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/26/2024	ND	2.04	102	2.00	15.1		
Toluene*	<0.050	0.050	05/26/2024	ND	2.05	103	2.00	10.3		
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.09	104	2.00	8.54		
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.13	102	6.00	7.95		
Total BTEX	<0.300	0.300	05/26/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	05/29/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	191	95.4	200	0.0335	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	193	96.4	200	1.96	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 72.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/29/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: PH 05 0.5' (H242874-06)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	2.04	102	2.00	15.1	
Toluene*	<0.050	0.050	05/26/2024	ND	2.05	103	2.00	10.3	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.09	104	2.00	8.54	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.13	102	6.00	7.95	
Total BTEX	<0.300	0.300	05/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1260	16.0	05/29/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	191	95.4	200	0.0335	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	193	96.4	200	1.96	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 89.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/29/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: PH 05 1' (H242874-07)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	2.04	102	2.00	15.1	
Toluene*	<0.050	0.050	05/26/2024	ND	2.05	103	2.00	10.3	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.09	104	2.00	8.54	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.13	102	6.00	7.95	
Total BTEX	<0.300	0.300	05/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	05/29/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	206	103	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	203	101	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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

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

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101

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

Company Name: Ensolum, LLC

Project Manager: Tracy Hillard

Address: 601 N Marienfeld Street, Suite 400

City: Midland

Phone #: 575-937-3906

Project #: 0315583416

Project Name: PM 22 DTD Rod D

Project Location: 32, 20997, -103, 86489

Sampler Name: Tracy Hillard

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

Depth (feet)

PH01

PH02

PH03

PH04

PH05

PH06

PH07

PH08

PH09

PH10

PH11

PH12

PH13

PH14

PH15

PH16

PH17

PH18

PH19

P.O. #:

Company: XTO Energy

Attn: Amy Ruth

Address: 3104 Greene

City: Carlsbad

State: NM Zip: 88220

Phone #: 432-661-0571

Fax #:

BILL TO

ANALYSIS REQUEST

P.O. #:

Company: XTO Energy

Attn: Amy Ruth

Address: 3104 Greene

City: Carlsbad

State: NM Zip: 88220

Phone #: 432-661-0571

Fax #:

DATE

TIME

TPH 8015

BTEX 8021

Chloride 4500

DATE

TIME

TPH 8015

BTEX 8021

Chloride 4500

DATE

TIME

TPH 8015

BTEX 8021

Chloride 4500

DATE

TIME

TPH 8015

BTEX 8021

Chloride 4500

DATE

TIME

TPH 8015

BTEX 8021

P.O. #:

Company: XTO Energy

Attn: Amy Ruth

Address: 3104 Greene

City: Carlsbad

State: NM Zip: 88220

Phone #: 432-661-0571

Fax #:

DATE

TIME

TPH 8015

BTEX 8021

Chloride 4500

DATE

TIME

TPH 8015

BTEX 8021

Chloride 4500

DATE

TIME

TPH 8015

BTEX 8021

Chloride 4500

DATE

TIME

TPH 8015

BTEX 8021

Chloride 4500

DATE

TIME

TPH 8015

BTEX 8021



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

May 29, 2024

TRACY HILLARD

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: PLU 22 DTD PAD D

Enclosed are the results of analyses for samples received by the laboratory on 05/23/24 13:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/29/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SS 06 0.5 (H242875-01)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	2.04	102	2.00	15.1	
Toluene*	<0.050	0.050	05/26/2024	ND	2.05	103	2.00	10.3	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.09	104	2.00	8.54	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.13	102	6.00	7.95	
Total BTEX	<0.300	0.300	05/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	05/29/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	206	103	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	203	101	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 80.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.9 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/29/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SS 07 0.5 (H242875-02)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	2.04	102	2.00	15.1	
Toluene*	<0.050	0.050	05/26/2024	ND	2.05	103	2.00	10.3	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.09	104	2.00	8.54	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.13	102	6.00	7.95	
Total BTEX	<0.300	0.300	05/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	05/29/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	206	103	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	203	101	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 72.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 66.8 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/29/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SS 08 0.5 (H242875-03)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	2.04	102	2.00	15.1	
Toluene*	<0.050	0.050	05/26/2024	ND	2.05	103	2.00	10.3	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.09	104	2.00	8.54	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.13	102	6.00	7.95	
Total BTEX	<0.300	0.300	05/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	05/29/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	206	103	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	203	101	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 98.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.1 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/29/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SS 09 0.5 (H242875-04)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	2.04	102	2.00	15.1	
Toluene*	<0.050	0.050	05/26/2024	ND	2.05	103	2.00	10.3	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.09	104	2.00	8.54	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.13	102	6.00	7.95	
Total BTEX	<0.300	0.300	05/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/29/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	206	103	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	203	101	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 84.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.8 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/29/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SS 10 0.5 (H242875-05)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	2.04	102	2.00	15.1	
Toluene*	<0.050	0.050	05/26/2024	ND	2.05	103	2.00	10.3	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.09	104	2.00	8.54	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.13	102	6.00	7.95	
Total BTEX	<0.300	0.300	05/26/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	05/29/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	206	103	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	203	101	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 80.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.1 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/29/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SS 11 0.5 (H242875-06)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	2.04	102	2.00	15.1	
Toluene*	<0.050	0.050	05/26/2024	ND	2.05	103	2.00	10.3	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.09	104	2.00	8.54	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.13	102	6.00	7.95	
Total BTEX	<0.300	0.300	05/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	05/29/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	206	103	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	203	101	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 87.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.3 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

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

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

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1051

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

Company Name: Ensolum, LLC

Project Manager: Tracy Hillard

Address: 601 N Marientfeld Street, Suite 400

City: Midland

Phone #: 575-937-3906

Fax #:

Project #: 03CIS5834E Project Owner: XTO

Project Name: PU 22 DTD Pad B

Project Location: 32.009971, -103.86489

Sampler Name: Tracy Hillard

BILL TO

P.O. #:

Company: XTO Energy

Attn: Amy Ruth

Address: 3104 Egreene

City: Paris, La

State: NM Zip: 88220

Phone #: 432-461-0571

Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY	Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX					DATE	TIME	SAMPLING									
						GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :								
	H242875	SS016	0.5	G	1	X						X			5/22/24	1215	X	X	X			
		SS07														1140						
		SS08														1145						
		SS09														1150						
		SS10														1200						
		SS11														1320						

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 the client for the 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 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: _____ Date: 5-23-24 Time: 1330 Received By: _____

Relinquished By: _____ Date: _____ Time: _____ Received By: _____

Delivered By: (Circle One) Observed Temp.: °C 1.9 Sample Condition Cool Intact Yes Yes No No Checked BY: (Initials) TDS

Sampler - UPS - Bus - Other: Corrected Temp.: °C Thermometer ID #443-#140 Standard Add'l Phone #: Bacteria (only) Sample Condition Cool Intact Yes Yes No No Observed Temp.: °C Corrected Temp.: °C

FORM-006-R 3-2-10/07/21 Please email changes to caley.keene@cardinallabsnm.com



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

May 29, 2024

TRACY HILLARD
ENSOLUM, LLC
705 W WADLEY AVE.
MIDLAND, TX 79705

RE: PLU 22 DTD PAD D

Enclosed are the results of analyses for samples received by the laboratory on 05/23/24 13:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene
Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/29/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/21/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH 01 1' (H242876-01)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/25/2024	ND	1.92	96.2	2.00	18.8	
Toluene*	<0.050	0.050	05/25/2024	ND	1.90	94.9	2.00	14.2	
Ethylbenzene*	<0.050	0.050	05/25/2024	ND	1.97	98.6	2.00	14.8	
Total Xylenes*	<0.150	0.150	05/25/2024	ND	6.00	100	6.00	14.7	
Total BTEX	<0.300	0.300	05/25/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	05/29/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	206	103	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	203	101	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 87.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.2 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/29/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/21/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH 02 0.5' (H242876-02)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/25/2024	ND	1.92	96.2	2.00	18.8	
Toluene*	<0.050	0.050	05/25/2024	ND	1.90	94.9	2.00	14.2	
Ethylbenzene*	<0.050	0.050	05/25/2024	ND	1.97	98.6	2.00	14.8	
Total Xylenes*	<0.150	0.150	05/25/2024	ND	6.00	100	6.00	14.7	
Total BTX	<0.300	0.300	05/25/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	05/29/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	206	103	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	203	101	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/29/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/21/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH 02 1' (H242876-03)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/25/2024	ND	1.92	96.2	2.00	18.8	
Toluene*	<0.050	0.050	05/25/2024	ND	1.90	94.9	2.00	14.2	
Ethylbenzene*	<0.050	0.050	05/25/2024	ND	1.97	98.6	2.00	14.8	
Total Xylenes*	<0.150	0.150	05/25/2024	ND	6.00	100	6.00	14.7	
Total BTEX	<0.300	0.300	05/25/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	05/29/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	206	103	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	203	101	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.5 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/29/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/21/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH 03 1' (H242876-04)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/25/2024	ND	1.92	96.2	2.00	18.8		
Toluene*	<0.050	0.050	05/25/2024	ND	1.90	94.9	2.00	14.2		
Ethylbenzene*	<0.050	0.050	05/25/2024	ND	1.97	98.6	2.00	14.8		
Total Xylenes*	<0.150	0.150	05/25/2024	ND	6.00	100	6.00	14.7		
Total BTEX	<0.300	0.300	05/25/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	05/29/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	206	103	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	203	101	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/29/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/21/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH 04 0.5' (H242876-05)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/25/2024	ND	1.92	96.2	2.00	18.8	
Toluene*	<0.050	0.050	05/25/2024	ND	1.90	94.9	2.00	14.2	
Ethylbenzene*	<0.050	0.050	05/25/2024	ND	1.97	98.6	2.00	14.8	
Total Xylenes*	<0.150	0.150	05/25/2024	ND	6.00	100	6.00	14.7	
Total BTEX	<0.300	0.300	05/25/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	05/29/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	206	103	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	203	101	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/29/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/21/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH 04 1' (H242876-06)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/25/2024	ND	1.92	96.2	2.00	18.8		
Toluene*	<0.050	0.050	05/25/2024	ND	1.90	94.9	2.00	14.2		
Ethylbenzene*	<0.050	0.050	05/25/2024	ND	1.97	98.6	2.00	14.8		
Total Xylenes*	<0.150	0.150	05/25/2024	ND	6.00	100	6.00	14.7		
Total BTEX	<0.300	0.300	05/25/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	05/29/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	206	103	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	203	101	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.7 % 49.1-148

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- QR-04 The RPD for the BS/BSD was outside of historical limits.
- BS-3 Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
- Samples reported on an as received basis (wet) unless otherwise noted on report

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

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Ensolum, LLC

Project Manager: Tracy Hillard

Address: 601 N Marienfeld Street, Suite 400

City: Midland

State: TX Zip: 79701

Phone #: 575-937-3906

Fax #:

Project #: 03C1558346

Project Owner: XTO

Project Name: PLU 22 DTD Pad D

Project Location: 32,20997,-103,86489

Sampler Name: Tracy Hillard

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

Depth (feet)

4843876

BH01

BH02

BH03

BH04

BH05

BH06

(G)RAB OR (C)OMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

TPH 8015

BTEX 8021

Chloride 4500

BILL TO

ANALYSIS REQUEST

P.O. #:

Company: XTO Energy

Attn: Amy Ruth

Address: 3104 Greave St

City: Carlsbad

State: NM Zip: 88220

Phone #: 432-661-0571

Fax #:

MATRIX

PRESERV

SAMPLING

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Relinquished By:

Date: 5/23/24

Received By:

Relinquished By:

Date: 5/23/24

Received By:

REMARKS: narp3411631990

cost center: 2242511001

Verbal Result:

Yes No Add'l Phone #:

All Results are emailed. Please provide Email address:

BBell@ensolum.com, TMorrissey@ensolum.com, THillard@ensolum.com

Delivered By: (Circle One)

Observed Temp. °C 7.9

Sample Condition Cool Intact Yes Yes No No

CHECKED BY: (Initials)

Turnaround Time: Standard Rush

Thermometer ID #443 #140

Correction Factor .05°C 4/23/24

Bacteria (only) Sample Condition Cool Intact Yes Yes No No

Sampler - UPS - Bus - Other:

Corrected Temp. °C

Corrected Temp. °C

Corrected Temp. °C

Corrected Temp. °C

Corrected Temp. °C

Corrected Temp. °C



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

May 30, 2024

TRACY HILLARD

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: PLU 22 DTD PAD D

Enclosed are the results of analyses for samples received by the laboratory on 05/23/24 13:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/21/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 01 0.5 (H242877-01)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/25/2024	ND	1.92	96.2	2.00	18.8	
Toluene*	<0.050	0.050	05/25/2024	ND	1.90	94.9	2.00	14.2	
Ethylbenzene*	<0.050	0.050	05/25/2024	ND	1.97	98.6	2.00	14.8	
Total Xylenes*	<0.150	0.150	05/25/2024	ND	6.00	100	6.00	14.7	
Total BTEX	<0.300	0.300	05/25/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/29/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	206	103	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	203	101	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.6 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/21/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 02 0.5 (H242877-02)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/25/2024	ND	1.92	96.2	2.00	18.8	
Toluene*	<0.050	0.050	05/25/2024	ND	1.90	94.9	2.00	14.2	
Ethylbenzene*	<0.050	0.050	05/25/2024	ND	1.97	98.6	2.00	14.8	
Total Xylenes*	<0.150	0.150	05/25/2024	ND	6.00	100	6.00	14.7	
Total BTEX	<0.300	0.300	05/25/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	05/29/2024	ND	416	104	400	10.9		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	206	103	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	203	101	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 91.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/21/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 03 0.5 (H242877-03)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/25/2024	ND	1.92	96.2	2.00	18.8	
Toluene*	<0.050	0.050	05/25/2024	ND	1.90	94.9	2.00	14.2	
Ethylbenzene*	<0.050	0.050	05/25/2024	ND	1.97	98.6	2.00	14.8	
Total Xylenes*	<0.150	0.150	05/25/2024	ND	6.00	100	6.00	14.7	
Total BTEX	<0.300	0.300	05/25/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	05/29/2024	ND	416	104	400	10.9	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	206	103	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	203	101	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 97.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.8 % 49.1-148

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Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/21/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 04 0.5 (H242877-04)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/25/2024	ND	1.92	96.2	2.00	18.8	
Toluene*	<0.050	0.050	05/25/2024	ND	1.90	94.9	2.00	14.2	
Ethylbenzene*	<0.050	0.050	05/25/2024	ND	1.97	98.6	2.00	14.8	
Total Xylenes*	<0.150	0.150	05/25/2024	ND	6.00	100	6.00	14.7	
Total BTEX	<0.300	0.300	05/25/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	05/29/2024	ND	416	104	400	10.9		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	206	103	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	203	101	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/21/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 05 0.5 (H242877-05)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/25/2024	ND	1.92	96.2	2.00	18.8	
Toluene*	<0.050	0.050	05/25/2024	ND	1.90	94.9	2.00	14.2	
Ethylbenzene*	<0.050	0.050	05/25/2024	ND	1.97	98.6	2.00	14.8	
Total Xylenes*	<0.150	0.150	05/25/2024	ND	6.00	100	6.00	14.7	
Total BTEX	<0.300	0.300	05/25/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	05/29/2024	ND	416	104	400	10.9	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	206	103	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	203	101	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/21/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 06 0.5 (H242877-06)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/25/2024	ND	1.92	96.2	2.00	18.8	
Toluene*	<0.050	0.050	05/25/2024	ND	1.90	94.9	2.00	14.2	
Ethylbenzene*	<0.050	0.050	05/25/2024	ND	1.97	98.6	2.00	14.8	
Total Xylenes*	<0.150	0.150	05/25/2024	ND	6.00	100	6.00	14.7	
Total BTEX	<0.300	0.300	05/25/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	05/29/2024	ND	416	104	400	10.9		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	206	103	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	203	101	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 99.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.1 % 49.1-148

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Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/21/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 08 0.5 (H242877-07)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/25/2024	ND	1.92	96.2	2.00	18.8	
Toluene*	<0.050	0.050	05/25/2024	ND	1.90	94.9	2.00	14.2	
Ethylbenzene*	<0.050	0.050	05/25/2024	ND	1.97	98.6	2.00	14.8	
Total Xylenes*	<0.150	0.150	05/25/2024	ND	6.00	100	6.00	14.7	
Total BTEX	<0.300	0.300	05/25/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/29/2024	ND	416	104	400	10.9	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	206	103	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	203	101	200	4.10	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/21/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 09 0.5 (H242877-08)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/25/2024	ND	1.92	96.2	2.00	18.8		
Toluene*	<0.050	0.050	05/25/2024	ND	1.90	94.9	2.00	14.2		
Ethylbenzene*	<0.050	0.050	05/25/2024	ND	1.97	98.6	2.00	14.8		
Total Xylenes*	<0.150	0.150	05/25/2024	ND	6.00	100	6.00	14.7		
Total BTEX	<0.300	0.300	05/25/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	05/29/2024	ND	416	104	400	10.9		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	187	93.4	200	0.623	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	205	103	200	1.21	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 92.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/21/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 10 0.5 (H242877-09)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	1.90	94.9	2.00	23.9	
Toluene*	<0.050	0.050	05/26/2024	ND	1.98	99.1	2.00	23.0	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.06	103	2.00	22.3	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.34	106	6.00	22.0	
Total BTEX	<0.300	0.300	05/26/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	05/29/2024	ND	416	104	400	10.9		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	187	93.4	200	0.623	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	205	103	200	1.21	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 11 0.5 (H242877-10)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/26/2024	ND	1.90	94.9	2.00	23.9		
Toluene*	<0.050	0.050	05/26/2024	ND	1.98	99.1	2.00	23.0		
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.06	103	2.00	22.3		
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.34	106	6.00	22.0		
Total BTEx	<0.300	0.300	05/26/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	05/29/2024	ND	416	104	400	10.9		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	187	93.4	200	0.623	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	205	103	200	1.21	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 12 0.5 (H242877-11)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	1.90	94.9	2.00	23.9	
Toluene*	<0.050	0.050	05/26/2024	ND	1.98	99.1	2.00	23.0	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.06	103	2.00	22.3	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.34	106	6.00	22.0	
Total BTEX	<0.300	0.300	05/26/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	05/29/2024	ND	416	104	400	10.9		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	187	93.4	200	0.623	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	205	103	200	1.21	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 13 0.5 (H242877-12)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	1.90	94.9	2.00	23.9	
Toluene*	<0.050	0.050	05/26/2024	ND	1.98	99.1	2.00	23.0	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.06	103	2.00	22.3	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.34	106	6.00	22.0	
Total BTEX	<0.300	0.300	05/26/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	05/29/2024	ND	416	104	400	10.9		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	187	93.4	200	0.623	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	205	103	200	1.21	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 97.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 14 0.5 (H242877-13)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	1.90	94.9	2.00	23.9	
Toluene*	<0.050	0.050	05/26/2024	ND	1.98	99.1	2.00	23.0	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.06	103	2.00	22.3	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.34	106	6.00	22.0	
Total BTEX	<0.300	0.300	05/26/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	05/29/2024	ND	416	104	400	10.9	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	187	93.4	200	0.623	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	205	103	200	1.21	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 15 0.5 (H242877-14)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	1.90	94.9	2.00	23.9	
Toluene*	<0.050	0.050	05/26/2024	ND	1.98	99.1	2.00	23.0	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.06	103	2.00	22.3	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.34	106	6.00	22.0	
Total BTEX	<0.300	0.300	05/26/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	05/29/2024	ND	416	104	400	10.9		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	187	93.4	200	0.623	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	205	103	200	1.21	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 92.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 16 0.5 (H242877-15)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	1.90	94.9	2.00	23.9	
Toluene*	<0.050	0.050	05/26/2024	ND	1.98	99.1	2.00	23.0	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.06	103	2.00	22.3	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.34	106	6.00	22.0	
Total BTEX	<0.300	0.300	05/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	05/29/2024	ND	416	104	400	10.9	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	187	93.4	200	0.623	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	205	103	200	1.21	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 97.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 17 0.5 (H242877-16)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	1.90	94.9	2.00	23.9	
Toluene*	<0.050	0.050	05/26/2024	ND	1.98	99.1	2.00	23.0	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.06	103	2.00	22.3	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.34	106	6.00	22.0	
Total BTEx	<0.300	0.300	05/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	05/29/2024	ND	416	104	400	10.9		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	187	93.4	200	0.623	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	205	103	200	1.21	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 97.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 18 0.5 (H242877-17)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	1.90	94.9	2.00	23.9	
Toluene*	<0.050	0.050	05/26/2024	ND	1.98	99.1	2.00	23.0	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.06	103	2.00	22.3	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.34	106	6.00	22.0	
Total BTEX	<0.300	0.300	05/26/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/29/2024	ND	416	104	400	10.9	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	187	93.4	200	0.623	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	205	103	200	1.21	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 19 0.5 (H242877-18)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	1.90	94.9	2.00	23.9	
Toluene*	<0.050	0.050	05/26/2024	ND	1.98	99.1	2.00	23.0	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.06	103	2.00	22.3	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.34	106	6.00	22.0	
Total BTEX	<0.300	0.300	05/26/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	05/29/2024	ND	416	104	400	10.9		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	187	93.4	200	0.623	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	205	103	200	1.21	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 99.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 20 0.5 (H242877-19)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	1.90	94.9	2.00	23.9	
Toluene*	<0.050	0.050	05/26/2024	ND	1.98	99.1	2.00	23.0	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.06	103	2.00	22.3	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.34	106	6.00	22.0	
Total BTEX	<0.300	0.300	05/26/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	05/29/2024	ND	416	104	400	10.9		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	187	93.4	200	0.623	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	205	103	200	1.21	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 21 0.5 (H242877-20)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	1.90	94.9	2.00	23.9	
Toluene*	<0.050	0.050	05/26/2024	ND	1.98	99.1	2.00	23.0	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.06	103	2.00	22.3	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.34	106	6.00	22.0	
Total BTEX	<0.300	0.300	05/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	05/29/2024	ND	416	104	400	10.9	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	187	93.4	200	0.623	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	205	103	200	1.21	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 98.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 22 0.5 (H242877-21)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	1.90	94.9	2.00	23.9	
Toluene*	<0.050	0.050	05/26/2024	ND	1.98	99.1	2.00	23.0	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.06	103	2.00	22.3	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.34	106	6.00	22.0	
Total BTEX	<0.300	0.300	05/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/29/2024	ND	416	104	400	10.9	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	187	93.4	200	0.623	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	205	103	200	1.21	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 96.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 23 0.5 (H242877-22)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	1.90	94.9	2.00	23.9	
Toluene*	<0.050	0.050	05/26/2024	ND	1.98	99.1	2.00	23.0	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.06	103	2.00	22.3	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.34	106	6.00	22.0	
Total BTEX	<0.300	0.300	05/26/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/30/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	187	93.4	200	0.623	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	205	103	200	1.21	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 93.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 TRACY HILLARD
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 05/23/2024
 Reported: 05/30/2024
 Project Name: PLU 22 DTD PAD D
 Project Number: 03C1558346
 Project Location: XTO 32.209997-103.86489

Sampling Date: 05/22/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: FS 24 0.5 (H242877-23)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/26/2024	ND	1.90	94.9	2.00	23.9	
Toluene*	<0.050	0.050	05/26/2024	ND	1.98	99.1	2.00	23.0	
Ethylbenzene*	<0.050	0.050	05/26/2024	ND	2.06	103	2.00	22.3	
Total Xylenes*	<0.150	0.150	05/26/2024	ND	6.34	106	6.00	22.0	
Total BTEX	<0.300	0.300	05/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	05/30/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/24/2024	ND	187	93.4	200	0.623	
DRO >C10-C28*	<10.0	10.0	05/24/2024	ND	205	103	200	1.21	
EXT DRO >C28-C36	<10.0	10.0	05/24/2024	ND					

Surrogate: 1-Chlorooctane 96.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Notes and Definitions

- QR-04 The RPD for the BS/BSD was outside of historical limits.
- BS-3 Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
- Samples reported on an as received basis (wet) unless otherwise noted on report

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

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 1

Company Name: Ensolum, LLC

Project Manager: Tracy Hillard

Address: 601 N Marientfeld Street, Suite 400

City: Midland State: TX Zip: 79701

Phone #: 575-937-3900 Fax #:

Project #: 03C1558346 Project Owner: XTO

Project Name: PM 22 DTD Pad D

Project Location: 32.20997, -103.86489

Sampler Name: Tracy Hillard

BILL TO

ANALYSIS REQUEST

P.O. #:

Company: XTO Energy

Attn: Amy Ruth

Address: 3104 Greene

City: Carlsbad

State: NM Zip: 88240

Phone #: 432-661-0571

Fax #:

FOR LAB USE ONLY

Lab I.D. Sample I.D.

Depth (feet)

(G)RAB OR (C)OMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

TPH 8015

BTEX 8021

Chloride 4500

10	FS11	0.5	C	1	X	5-22-24	1220	X	X	X										
11	FS12						1223													
12	FS13						1226													
13	FS14						1230													
14	FS15						1232													
15	FS16						1235													
16	FS17						1237													
17	FS18						1239													
18	FS19						1241													
19	FS20						1243													

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Relinquished By:

Date: 5-23-24

Time: 1:30 PM

Received By:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:

All Results are emailed. Please provide Email address: BBeill@ensolum.com, TMorrissey@ensolum.com, THillard@ensolum.com

Relinquished By:

Date:

Time:

Received By:

REMARKS:

cost center: 224851001

Turnaround Time: Standard ☒ Rush ☐

Thermometer ID #44-2140

Correction Factor 0.0C 20-5/23/24

Bacteria (only) Sample Condition

Cool Intact ☐ Yes ☐ No

Observed Temp. °C

Corrected Temp. °C

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

Observed Temp. °C

Corrected Temp. °C

Sample Condition

Cool Intact ☒ Yes ☐ No

Observed Temp. °C

Time:

Received By:

REMARKS:

Turnaround Time: Standard ☒ Rush ☐

Thermometer ID #44-2140

Correction Factor 0.0C 20-5/23/24

Bacteria (only) Sample Condition

Cool Intact ☐ Yes ☐ No

Observed Temp. °C

Corrected Temp. °C

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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

—
G
↑

[illegible]

From: [Tacoma Morrissey](#)
To: [Wells, Shelly, EMNRD](#)
Subject: [EXTERNAL] RE: NAPP2411631990 POKER LAKE UNIT 22 DTD PAD D
Date: Tuesday, September 17, 2024 11:58:14 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[Figure 3. Confirmation Soil Sampling Locations.pdf](#)

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

Hi Shelly,

I appreciate you reaching out! You are correct, no excavation was completed in that area, only delineation and confirmation soil sampling which indicates no impacted soil exists in that area. What you are seeing in the Figure is an error in the legend that was missed, my sincerest apologies. Please see the attached figure with the legend corrected, to assist in your review.

Please let me know if we need to submit anything additional to document the correction. Thank you so much for reaching out and letting me address your concern.

Thank you,



Tacoma Morrissey

Associate Principal

337-257-8307

Ensolum, LLC

in f X

From: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Sent: Tuesday, September 17, 2024 12:37 PM
To: Tacoma Morrissey <tmorrissey@ensolum.com>
Subject: NAPP2411631990 POKER LAKE UNIT 22 DTD PAD D

[**EXTERNAL EMAIL**]

Hi Tacoma,

I am reviewing the submitted remediation plan for NAPP2411631990 POKER LAKE UNIT 22 DTD PAD D and have a few questions. Why does the area of the pasture that was sampled say Excavation Extent? From what I read in the remediation summary, no surface scrape or any excavation was conducted in the pasture or did I miss something? I look forward to hearing what you have to say.

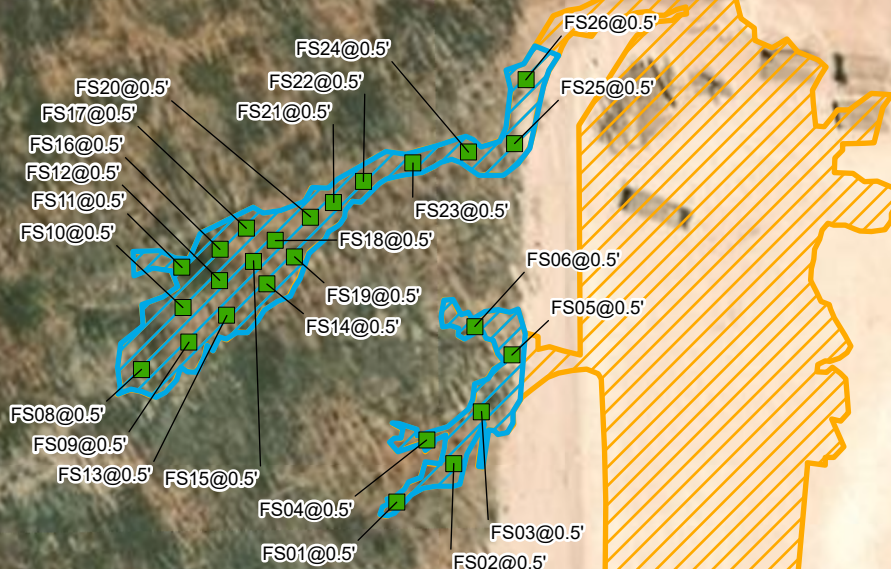
Kind regards,

Shelly

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

Legend

- Confirmation Floor
- Sample in Compliance with Closure Criteria
- Release Extent
- Soil Sampling Area



Notes:
Sample ID @ Depth Below Ground Surface.

0 15 30 60 90 120
Feet

Sources: Environmental Systems Research Institute (ESRI)



Confirmation Soil Sample Locations

XTO Energy, Inc
Poker Lake Unit 22 DTD Pad D
Incident Number: nAPP2411631990
Unit B, Sec 22, T24S, R30E
Eddy County, New Mexico

FIGURE

3

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

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

QUESTIONS

Action 382286

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:
	5380
	Action Number:
	382286
Action Type:	
[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)	

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2411631990
Incident Name	NAPP2411631990 POKER LAKE UNIT 22 DTD PAD D @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

Location of Release Source	
Please answer all the questions in this group.	
Site Name	POKER LAKE UNIT 22 DTD PAD D
Date Release Discovered	04/09/2024
Surface Owner	Federal

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure Pump Produced Water Released: 18 BBL Recovered: 0 BBL Lost: 18 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

District I

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

District II

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

District III

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

District IV

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

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

QUESTIONS, Page 2

Action 382286

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:	5380
	Action Number:	382286
	Action Type:	[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	No
Reasons why this would be considered a submission for a notification of a major release	Unavailable.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response

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

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

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

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

I hereby agree and sign off to the above statement	Name: Colton Brown Title: Environmental Advisor Email: colton.s.brown@exxonmobil.com Date: 09/10/2024
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QUESTIONS, Page 3

Action 382286

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:
	5380
	Action Number:
	382286
Action Type:	
[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)	

QUESTIONS**Site Characterization**

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

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	U.S. Geological Survey
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1000 (ft.) and ½ (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between ½ and 1 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between ½ and 1 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan

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

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

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

Chloride	(EPA 300.0 or SM4500 Cl B)	2360
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	34.1
GRO+DRO	(EPA SW-846 Method 8015M)	34.1
BTEX	(EPA SW-846 Method 8021B or 8260B)	0
Benzene	(EPA SW-846 Method 8021B or 8260B)	0

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

On what estimated date will the remediation commence	04/26/2024
On what date will (or did) the final sampling or liner inspection occur	11/18/2024
On what date will (or was) the remediation complete(d)	11/18/2024
What is the estimated surface area (in square feet) that will be reclaimed	22275
What is the estimated volume (in cubic yards) that will be reclaimed	845
What is the estimated surface area (in square feet) that will be remediated	22275
What is the estimated volume (in cubic yards) that will be remediated	845

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

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

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QUESTIONS, Page 4

Action 382286

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:	5380
	Action Number:	382286
	Action Type:	[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Remediation Plan (continued)	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	HALFWAY DISPOSAL AND LANDFILL [fEEM0112334510]
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Colton Brown Title: Environmental Advisor Email: colton.s.brown@exxonmobil.com Date: 09/10/2024
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 5

Action 382286

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 382286
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

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

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QUESTIONS, Page 6

Action 382286

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:
	5380
	Action Number:
	382286
Action Type:	
[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)	

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	382573
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	09/20/2024
What was the (estimated) number of samples that were to be gathered	130
What was the sampling surface area in square feet	23000

Remediation Closure Request

Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.

Requesting a remediation closure approval with this submission	No
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CONDITIONS

Action 382286

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 382286
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
scwells	Remediation plan approved. Variance is approved to collect five-point composite confirmation samples from the base of the excavation every 400 square feet and every 200 square feet from the walls of the excavation. Submit remediation closure report to the OCD by 12/16/24.	9/17/2024