



December 23, 2024

New Mexico Oil Conservation Division

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

**Re: Closure Request
PLU 22 DTD
Incident Number nAPP2418049577
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum) on behalf of XTO Energy, Inc. (XTO), has prepared this *Closure Request* to document excavation and soil sampling activities performed at the PLU 22 DTD (Site). The purpose of excavation and soil sampling activities, conducted in accordance with an approved *Remediation Work Plan (Work Plan)*, was to address impacts to soil resulting from a release of produced water and crude oil at the Site. XTO is submitting this *Closure Request*, describing excavation activities that have occurred and requesting no further remediation for Incident Number nAPP2418049577.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit G, Section 22, Township 24 South, Range 30 East, in Eddy County, New Mexico (32.206°, -103.86686°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On June 26, 2024, an illegal dump was discovered along an active lease road. An estimated 26 barrels (bbls) of produced water and 26 bbls of crude oil were released onto the surface of the lease road and into an adjacent pasture area. No fluids were recovered. Upon discovery of the illegal dump, the Eddy County sheriff's department was notified and case number L240001598 was filed. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) via Notification of Release (NOR) and submitted an Initial C-141 Application (C-141) on June 28, 2024. The release was assigned Incident Number NAPP2418049577.

Ensolum conducted Site assessment and delineation activities and presented the results in a *Work Plan*. The *Work Plan* was submitted on September 24, 2024 and approved by the NMOCD on September 26, 2024. The *Work Plan* details delineation activities and results of delineation soil sample analytical results and proposed confirmation soil sampling be conducted within the release extent to further confirm the absence of impacted soil.

XTO Energy, Inc
Closure Request
PLU 22 DTD

SITE CHARACTERIZATION AND CLOSURE CRITERIA

As documented in the approved *Work Plan*, 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
- TPH: 100 mg/kg
- Chloride: 600 mg/kg

CONFIRMATION SOIL SAMPLING ACTIVITIES

Ensolum personnel were onsite on October 14, 2024 and November 14, 2024 to collect confirmation soil samples within the release extent. Ensolum personnel collected 5-point composite soil samples every 400 square feet, in accordance with the approved sampling frequency variance, from the surface of the release extent. The composite soil samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Soil from the composite samples was field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. Confirmation soil samples CS01 through CS26 were collected from the release extent at a depth of 0.5 feet bgs. The confirmation soil sample locations were mapped utilizing a handheld global positioning system (GPS) unit and are depicted on Figure 3. Photographic documentation of the Site visit is provided in Appendix A

The 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 COCs: BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following Standard Method SM4500.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for confirmation soil samples CS12, CS13, CS15, CS16, CS18 and CS25 indicated TPH and/or chloride concentrations exceeded the Closure Criteria. Laboratory analytical results for all other confirmation soil samples indicated all COC concentrations were compliant with the Closure Criteria. The laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included in Appendix C.

EXCAVATION SOIL SAMPLING ACTIVITIES

On November 25 2024, Ensolum personnel returned to the Site to oversee the excavation of impacted soil located in the vicinity of confirmation soil sample locations CS12, CS13, CS15, CS16, CS18, and CS25. Excavation activities were performed by use of heavy equipment. To direct excavation activities, soil was field screened for VOCs and chloride. Once field screening indicated impacted soil was adequately removed, 5-point composite, confirmation soil samples CS12A, CS13A, CS15A, CS16A, CS18A, and CS25A, were collected at a depth of 1 foot bgs. In addition, composite sidewall soil samples SW01 through SW04 were collected at depths ranging from the ground surface to 1 foot bgs. The confirmation soil samples were handled and submitted to Cardinal for analysis of the same COCs as

XTO Energy, Inc
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PLU 22 DTD

described above. The confirmation soil sample locations were mapped utilizing a GPS unit and are depicted on Figure 3. Photographic documentation of the final excavation extent is provided in Appendix A

The final excavation extents measured approximately 1,409 square feet in total. A total of approximately 52 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and disposed of at the Owl Landfill Service, LLC in Jal, New Mexico. The final excavation was backfilled on the same day, November 26, 2024.

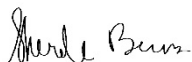
CLOSURE REQUEST

Confirmation soil sampling activities were conducted at the Site in accordance with the approved *Work Plan* to address the September 2024 release of produced water and crude oil. Laboratory analytical results indicated the impacted soil as a result of the release was present at the Site. Impacted soil was excavated and all final confirmation soil samples indicated all COCs were in compliance with the Closure Criteria. Based on the soil sample laboratory analytical results, no further remediation is required. The excavation has been backfilled with material purchased locally and the Site has been recontoured to match pre-existing site conditions.

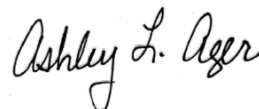
Excavation of soil has mitigated impacts exceeding the Closure Criteria at the Site. XTO believes these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests closure for Incident Number nAPP2418049577.

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

Sincerely,
Ensolum, LLC



Sherele Brooks
Staff Scientist



Ashley L. Ager, M.S., P.G.
Principal

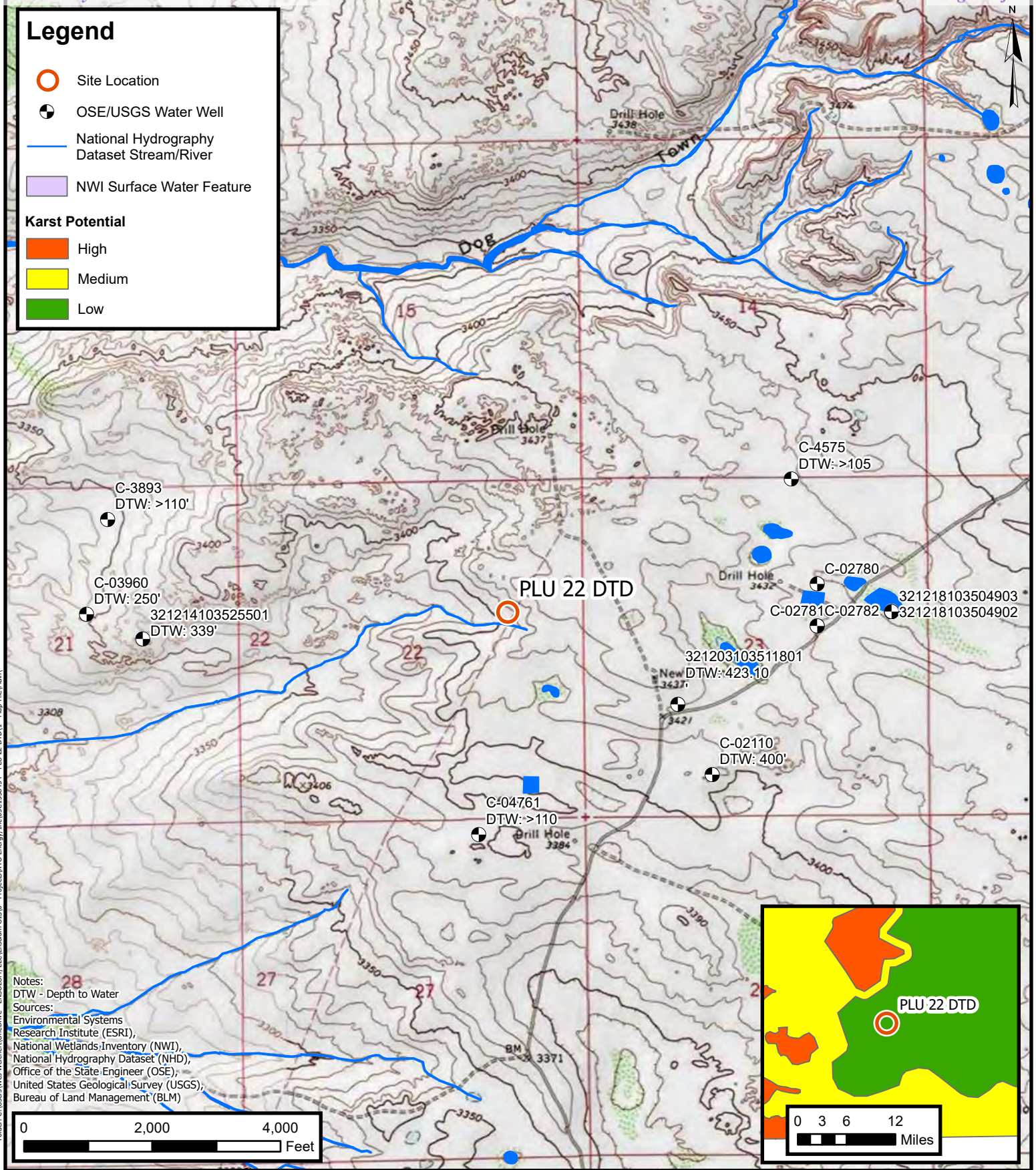
cc: Colton Brown, XTO
Kaylan Dirkx, XTO
BLM

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Photographic Log
Appendix B	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix C	September 23, 2024 Remediation Work Plan



FIGURES



Site Receptor Map

XTO Energy, Inc
PLU 22 DTD
Incident Number: NAPP2418049577
Unit G, Sec 22, T24S, R30E
Eddy Co, New Mexico, United States

FIGURE
1



Delineation Soil Sample Locations

XTO Energy, Inc
 PLU 22 DTD
 Incident Number: NAPP2418049577
 Unit G, Sec 22, T24S, R30E
 Eddy Co, New Mexico, United States

FIGURE
2



Legend

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

Notes:
Sample ID @ Depth Below Ground Surface.
Samples in bold indicate sample exceeded applicable closure criteria.
Grey text indicate soil sample was removed during excavation activities.

Excavation Soil Sample Locations

XTO Energy, Inc
PLU 22 DTD
Incident Number: NAPP2418049577
Unit G, Section 22, T 24S, R 30E
Eddy County, New Mexico

FIGURE 3

Project Number: 03C1558454



Sources: Environmental Systems Research Institute (ESRI), Bing



TABLES



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
PLU 22 DTD
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	NE	100	600
Delineation Soil Samples										
SS01	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS02	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS03	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208
SS04	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SS05	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
SS06	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SS07	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	288
SS08	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS09	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
SS10	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	224
BH01	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
BH01A	07/24/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
BH02	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
BH02A	07/24/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
BH03	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
BH03A	07/24/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
BH04	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
BH04A	07/24/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
BH05	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
BH05A	07/24/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
BH06	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
BH06A	07/24/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
Confirmation Soil Samples										
CS01	10/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32
CS02	10/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32
CS03	10/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48
CS04	10/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48
CS05	10/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96
CS06	10/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
PLU 22 DTD
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	NE	100	600
CS07	10/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80
CS08	10/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32
CS09	10/14/2024	0.5	<0.050	<0.300	<10.0	14.4	<10.0	<10.0	<10.0	32
CS10	10/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS11	10/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48
CS12	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	688
CS12A	11/25/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80
CS13	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	800
CS13A	11/25/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32
CS14	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	416
CS15	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,280
CS15A	11/25/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32
CS16	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,180
CS16A	11/25/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16
CS17	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	528
CS18	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,310
CS18A	11/25/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64
CS19	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	560
CS20	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	384
CS21	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	576
CS22	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	496
CS23	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	384
CS24	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	256
CS25	11/14/2024	0.5	<0.050	<0.300	<10.0	188	50.4	188	238	432
CS25A	11/25/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96
CS26	11/14/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	480
SW01	11/25/2024	0-1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
PLU 22 DTD
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	NE	100	600
SW02	11/25/2024	0-1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
SW03	11/25/2024	0-1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
SW04	11/25/2024	0-1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192

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

Photographic Log

**Photographic Log**

XTO Energy, Inc

PLU 22 DTD

nAPP2418049577



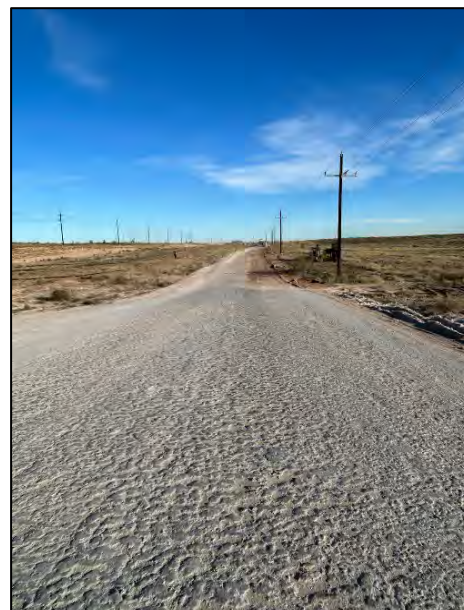
Photograph: 1 Date: 10/14/2024
Description: Soil sampling activities
View: Northeast



Photograph: 2 Date: 11/25/2024
Description: Excavation activities
View: Southeast



Photograph: 3 Date: 11/26/2024
Description: Excavation activities
View: Southeast



Photograph: 4 Date: 11/26/2024
Description: Backfill activities
View: Southeast



APPENDIX B

Laboratory Analytical Reports & Chain of Custody Documentation



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

October 17, 2024

BEN BELILL

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: PLU 22 DTD

Enclosed are the results of analyses for samples received by the laboratory on 10/15/24 13:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
 BEN BELILL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 10/15/2024
 Reported: 10/17/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 10/14/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: CS 01 0.5' (H246255-01)

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/16/2024	ND	2.17	109	2.00	6.42		
Toluene*	<0.050	0.050	10/16/2024	ND	2.09	104	2.00	6.01		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	5.73		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.27	105	6.00	6.06		
Total BTX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/16/2024	ND	400	100	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	10/16/2024	ND	193	96.6	200	0.356	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	191	95.7	200	7.97	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.2 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 10/15/2024
Reported: 10/17/2024
Project Name: PLU 22 DTD
Project Number: 03C1558454
Project Location: XTO 32.206000,-103.866860

Sampling Date: 10/14/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: CS 02 0.5' (H246255-02)

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	10/16/2024	ND	2.17	109	2.00	6.42		
Toluene*	<0.050	0.050	10/16/2024	ND	2.09	104	2.00	6.01		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	5.73		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.27	105	6.00	6.06		
Total BTEx	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/16/2024	ND	400	100	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	10/16/2024	ND	193	96.6	200	0.356	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	191	95.7	200	7.97	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.1 % 49.1-148

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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 10/15/2024
Reported: 10/17/2024
Project Name: PLU 22 DTD
Project Number: 03C1558454
Project Location: XTO 32.206000,-103.866860

Sampling Date: 10/14/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: CS 03 0.5' (H246255-03)

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	10/16/2024	ND	2.17	109	2.00	6.42	
Toluene*	<0.050	0.050	10/16/2024	ND	2.09	104	2.00	6.01	
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	5.73	
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.27	105	6.00	6.06	
Total BTEx	<0.300	0.300	10/16/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	10/16/2024	ND	400	100	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	10/16/2024	ND	193	96.6	200	0.356	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	191	95.7	200	7.97	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 117 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 10/15/2024
Reported: 10/17/2024
Project Name: PLU 22 DTD
Project Number: 03C1558454
Project Location: XTO 32.206000,-103.866860

Sampling Date: 10/14/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: CS 04 0.5' (H246255-04)

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	10/16/2024	ND	2.17	109	2.00	6.42		
Toluene*	<0.050	0.050	10/16/2024	ND	2.09	104	2.00	6.01		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	5.73		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.27	105	6.00	6.06		
Total BTEx	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	10/16/2024	ND	400	100	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	10/16/2024	ND	193	96.6	200	0.356	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	191	95.7	200	7.97	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.8 % 49.1-148

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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 10/15/2024
Reported: 10/17/2024
Project Name: PLU 22 DTD
Project Number: 03C1558454
Project Location: XTO 32.206000,-103.866860

Sampling Date: 10/14/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: CS 05 0.5' (H246255-05)

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	10/16/2024	ND	2.17	109	2.00	6.42		
Toluene*	<0.050	0.050	10/16/2024	ND	2.09	104	2.00	6.01		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	5.73		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.27	105	6.00	6.06		
Total BTEX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	10/16/2024	ND	400	100	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	10/16/2024	ND	193	96.6	200	0.356	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	191	95.7	200	7.97	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.2 % 49.1-148

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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 10/15/2024
Reported: 10/17/2024
Project Name: PLU 22 DTD
Project Number: 03C1558454
Project Location: XTO 32.206000,-103.866860

Sampling Date: 10/14/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: CS 06 0.5' (H246255-06)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/16/2024	ND	2.17	109	2.00	6.42	
Toluene*	<0.050	0.050	10/16/2024	ND	2.09	104	2.00	6.01	
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	5.73	
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.27	105	6.00	6.06	
Total BTEX	<0.300	0.300	10/16/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	48.0	16.0	10/16/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	193	96.6	200	0.356	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	191	95.7	200	7.97	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 10/15/2024
Reported: 10/17/2024
Project Name: PLU 22 DTD
Project Number: 03C1558454
Project Location: XTO 32.206000,-103.866860

Sampling Date: 10/14/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: CS 07 0.5' (H246255-07)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/16/2024	ND	2.17	109	2.00	6.42		
Toluene*	<0.050	0.050	10/16/2024	ND	2.09	104	2.00	6.01		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	5.73		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.27	105	6.00	6.06		
Total BTEx	<0.300	0.300	10/16/2024	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	80.0	16.0	10/16/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	193	96.6	200	0.356	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	191	95.7	200	7.97	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 10/15/2024
Reported: 10/17/2024
Project Name: PLU 22 DTD
Project Number: 03C1558454
Project Location: XTO 32.206000,-103.866860

Sampling Date: 10/14/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: CS 08 0.5' (H246255-08)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/16/2024	ND	2.17	109	2.00	6.42		
Toluene*	<0.050	0.050	10/16/2024	ND	2.09	104	2.00	6.01		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	5.73		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.27	105	6.00	6.06		
Total BTEx	<0.300	0.300	10/16/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	32.0	16.0	10/16/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	193	96.6	200	0.356	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	191	95.7	200	7.97	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.3 % 49.1-148

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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 10/15/2024
Reported: 10/17/2024
Project Name: PLU 22 DTD
Project Number: 03C1558454
Project Location: XTO 32.206000,-103.866860

Sampling Date: 10/14/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: CS 09 0.5' (H246255-09)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/16/2024	ND	2.17	109	2.00	6.42		
Toluene*	<0.050	0.050	10/16/2024	ND	2.09	104	2.00	6.01		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	5.73		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.27	105	6.00	6.06		
Total BTEX	<0.300	0.300	10/16/2024	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	32.0	16.0	10/16/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	193	96.6	200	0.356	
DRO >C10-C28*	14.4	10.0	10/16/2024	ND	191	95.7	200	7.97	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.4 % 49.1-148

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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 10/15/2024
Reported: 10/17/2024
Project Name: PLU 22 DTD
Project Number: 03C1558454
Project Location: XTO 32.206000,-103.866860

Sampling Date: 10/14/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: CS 10 0.5' (H246255-10)

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/16/2024	ND	2.17	109	2.00	6.42		
Toluene*	<0.050	0.050	10/16/2024	ND	2.09	104	2.00	6.01		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	5.73		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.27	105	6.00	6.06		
Total BTEX	<0.300	0.300	10/16/2024	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	<16.0	16.0	10/16/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	193	96.6	200	0.356	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	191	95.7	200	7.97	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 10/15/2024
Reported: 10/17/2024
Project Name: PLU 22 DTD
Project Number: 03C1558454
Project Location: XTO 32.206000,-103.866860

Sampling Date: 10/14/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: CS 11 0.5' (H246255-11)

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/16/2024	ND	2.17	109	2.00	6.42		
Toluene*	<0.050	0.050	10/16/2024	ND	2.09	104	2.00	6.01		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	5.73		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.27	105	6.00	6.06		
Total BTX	<0.300	0.300	10/16/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	48.0	16.0	10/16/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2024	ND	193	96.6	200	0.356	
DRO >C10-C28*	<10.0	10.0	10/16/2024	ND	191	95.7	200	7.97	
EXT DRO >C28-C36	<10.0	10.0	10/16/2024	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.7 % 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

S-05	The surrogate recovery is outside of lab established statistical control limits but still within method limits. Data is not adversely affected.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by 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", is written over a horizontal line.

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

Company Name: Ensolum, LLC						P.O. #:						ANALYSIS REQUEST											
Project Manager: Ben Belzil						Company: XTO Energy																	
Address: 3122 National Parks Hwy						Attn: Colton Brown																	
City: Carlsbad						State: NM Zip: 88220																	
Phone #: 989-854-0852 Fax #:						Address: 3104 E Green St																	
Project #: 03C1558454 Project Owner:						City: Carlsbad																	
Project Name: PLU 22 DTD						State: NM Zip: 88220																	
Project Location: 32,206/-103,8668						Phone #: 575-483-2340																	
Sampler Name: Mario SARKIS						Fax #:																	
FOR LAB USE ONLY						PRESERV.						SAMPLING											
Lab I.D.		Sample I.D.		Depth (feet)		(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX		DATE		TIME		BTEx		TPH		Chlorides			
H241255		CS01		0.5		✓		✓		✓		10/14/24		1036		✓		✓		✓			
2		CS02		0.5		✓		✓		✓				1037		✓		✓		✓			
3		CS03		0.5		✓		✓		✓				1039		✓		✓		✓			
4		CS04		0.5		✓		✓		✓				1041		✓		✓		✓			
5		CS05		0.5		✓		✓		✓				1044		✓		✓		✓			
6		CS06		0.5		✓		✓		✓				1048		✓		✓		✓			
7		CS07		0.5		✓		✓		✓				1055		✓		✓		✓			
8		CS08		0.5		✓		✓		✓				1058		✓		✓		✓			
9		CS09		0.5		✓		✓		✓				1101		✓		✓		✓			
10		CS10		0.5		✓		✓		✓				1109		✓		✓		✓			
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Relinquished By: [Signature]						Date: 10/15/24						Received By: [Signature]						Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #:					
Time: 1345						Observed Temp.: -1.3						Corrected Temp.: -1.9						Thermometer ID: #440, 48 hr					
Delivered By: (Circle One)						Cool Intact <input checked="" type="checkbox"/>						Bacteria (only) Sample Condition											
Sampler - UPS - Bus - Other:						Corrected Temp.: -1.9						Checked By: [Signature]						Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>					
Remarks: Cost center: 2289831001 / 2256241001						Incident #: NAPP2418049577						Turnaround Time:						Corrected Temp.: °C					



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

202

Company Name: Ensolum, LLC															BILL TO															ANALYSIS REQUEST														
Project Manager:															P.O. #:																													
Address: 3122 National Parks Hwy															Company: XTO Energy																													
City: Carlsbad															Attn: Colton Brown																													
Phone #: 989-854-0852 Fax #:															Address: 3104 E Green St.																													
State: NM Zip: 88220															City: Carlsbad																													
Project #: 03C1558454 Project Owner:															State: NM zip: 88320																													
Project Location: 32,206,-103,8668															Phone #: 575-488-2340																													
Sample Name: Mario Sulfides															Fax #:																													
<small>FOR LAB USE ONLY</small>																																												
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX						PRESERV		SAMPLING																															
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME																													
H246255	C511	0.5	C	1			V				/			10/14/24	1112	V	BTEX	V	TPH	V	Chlorides																							
MAFS																																												

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Relinquished By:															Date: 10-15-24															Received By:															Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #:														
Time: 1:34P																																													All Results are emailed. Please provide Email address: bbell@ensolum.com/kathompson@ensolum.com/Msacms@a														
REMARKS: Cost center: 2229831061 / 2250241001																																																											
Incident #: NAPP2418049577																																																											

Delivered By: (Circle One)															Observed Temp.: °C -1.3															Sample Condition															CHECKED BY:														
Sampler - UPS - Bus - Other:															Corrected Temp.: °C -1.9															Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No															(Initials) AB														
Turnaround Time:															Standard <input type="checkbox"/> Rush <input checked="" type="checkbox"/>															Bacteria (only) Sample Condition															Thermometer ID 448 B14018-hr														
																														Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No Observed Temp.: °C															Corrosion Factor SSC-B&B <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No														
																														Corrected Temp.: °C																													



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

November 19, 2024

BEN BELILL
ENSOLUM, LLC
705 W WADLEY AVE.
MIDLAND, TX 79705

RE: PLU 22 DTD (454)

Enclosed are the results of analyses for samples received by the laboratory on 11/15/24 13:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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 "Mike Snyder". The signature is fluid and cursive, with the first name "Mike" and last name "Snyder" clearly distinguishable.

Mike Snyder For Celey D. Keene
Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 BEN BELILL
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 11/15/2024
 Reported: 11/19/2024
 Project Name: PLU 22 DTD (454)
 Project Number: 03C1558454
 Project Location: 32.20, -103.86686

Sampling Date: 11/14/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Alyssa Parras

Sample ID: CS 12 0.5 (H246989-01)

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	11/16/2024	ND	2.09	105	2.00	18.0		
Toluene*	<0.050	0.050	11/16/2024	ND	2.24	112	2.00	18.9		
Ethylbenzene*	<0.050	0.050	11/16/2024	ND	2.45	123	2.00	24.7		
Total Xylenes*	<0.150	0.150	11/16/2024	ND	7.44	124	6.00	26.0		
Total BTEx	<0.300	0.300	11/16/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	688	16.0	11/18/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/15/2024	ND	212	106	200	2.56	
DRO >C10-C28*	<10.0	10.0	11/15/2024	ND	204	102	200	2.46	
EXT DRO >C28-C36	<10.0	10.0	11/15/2024	ND					

Surrogate: 1-Chlorooctane 96.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.3 % 49.1-148

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*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 BEN BELILL
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 11/15/2024
 Reported: 11/19/2024
 Project Name: PLU 22 DTD (454)
 Project Number: 03C1558454
 Project Location: 32.20, -103.86686

Sampling Date: 11/14/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Alyssa Parras

Sample ID: CS 13 0.5 (H246989-02)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/16/2024	ND	2.09	105	2.00	18.0	
Toluene*	<0.050	0.050	11/16/2024	ND	2.24	112	2.00	18.9	
Ethylbenzene*	<0.050	0.050	11/16/2024	ND	2.45	123	2.00	24.7	
Total Xylenes*	<0.150	0.150	11/16/2024	ND	7.44	124	6.00	26.0	
Total BTEX	<0.300	0.300	11/16/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	800	16.0	11/18/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/15/2024	ND	212	106	200	2.56	
DRO >C10-C28*	<10.0	10.0	11/15/2024	ND	204	102	200	2.46	
EXT DRO >C28-C36	<10.0	10.0	11/15/2024	ND					

Surrogate: 1-Chlorooctane 88.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.7 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 BEN BELILL
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 11/15/2024
 Reported: 11/19/2024
 Project Name: PLU 22 DTD (454)
 Project Number: 03C1558454
 Project Location: 32.20, -103.86686

Sampling Date: 11/14/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Alyssa Parras

Sample ID: CS 14 0.5 (H246989-03)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/16/2024	ND	2.09	105	2.00	18.0	
Toluene*	<0.050	0.050	11/16/2024	ND	2.24	112	2.00	18.9	
Ethylbenzene*	<0.050	0.050	11/16/2024	ND	2.45	123	2.00	24.7	
Total Xylenes*	<0.150	0.150	11/16/2024	ND	7.44	124	6.00	26.0	
Total BTEX	<0.300	0.300	11/16/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	416	16.0	11/18/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/15/2024	ND	212	106	200	2.56	
DRO >C10-C28*	<10.0	10.0	11/15/2024	ND	204	102	200	2.46	
EXT DRO >C28-C36	<10.0	10.0	11/15/2024	ND					

Surrogate: 1-Chlorooctane 87.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.9 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM, LLC
 BEN BELILL
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 11/15/2024
 Reported: 11/19/2024
 Project Name: PLU 22 DTD (454)
 Project Number: 03C1558454
 Project Location: 32.20, -103.86686

Sampling Date: 11/14/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Alyssa Parras

Sample ID: CS 15 0.5 (H246989-04)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/16/2024	ND	2.09	105	2.00	18.0		
Toluene*	<0.050	0.050	11/16/2024	ND	2.24	112	2.00	18.9		
Ethylbenzene*	<0.050	0.050	11/16/2024	ND	2.45	123	2.00	24.7		
Total Xylenes*	<0.150	0.150	11/16/2024	ND	7.44	124	6.00	26.0		
Total BTEX	<0.300	0.300	11/16/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	1280	16.0	11/18/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/16/2024	ND	212	106	200	2.56	
DRO >C10-C28*	<10.0	10.0	11/16/2024	ND	204	102	200	2.46	
EXT DRO >C28-C36	<10.0	10.0	11/16/2024	ND					

Surrogate: 1-Chlorooctane 82.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.3 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 BEN BELILL
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 11/15/2024
 Reported: 11/19/2024
 Project Name: PLU 22 DTD (454)
 Project Number: 03C1558454
 Project Location: 32.20, -103.86686

Sampling Date: 11/14/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Alyssa Parras

Sample ID: CS 16 0.5 (H246989-05)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/16/2024	ND	2.09	105	2.00	18.0	
Toluene*	<0.050	0.050	11/16/2024	ND	2.24	112	2.00	18.9	
Ethylbenzene*	<0.050	0.050	11/16/2024	ND	2.45	123	2.00	24.7	
Total Xylenes*	<0.150	0.150	11/16/2024	ND	7.44	124	6.00	26.0	
Total BTEX	<0.300	0.300	11/16/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	1180	16.0	11/18/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/16/2024	ND	212	106	200	2.56	
DRO >C10-C28*	<10.0	10.0	11/16/2024	ND	204	102	200	2.46	
EXT DRO >C28-C36	<10.0	10.0	11/16/2024	ND					

Surrogate: 1-Chlorooctane 87.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.2 % 49.1-148

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 BEN BELILL
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 11/15/2024
 Reported: 11/19/2024
 Project Name: PLU 22 DTD (454)
 Project Number: 03C1558454
 Project Location: 32.20, -103.86686

Sampling Date: 11/14/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Alyssa Parras

Sample ID: CS 17 0.5 (H246989-06)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/16/2024	ND	2.09	105	2.00	18.0	
Toluene*	<0.050	0.050	11/16/2024	ND	2.24	112	2.00	18.9	
Ethylbenzene*	<0.050	0.050	11/16/2024	ND	2.45	123	2.00	24.7	
Total Xylenes*	<0.150	0.150	11/16/2024	ND	7.44	124	6.00	26.0	
Total BTEX	<0.300	0.300	11/16/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	528	16.0	11/18/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/16/2024	ND	212	106	200	2.56	
DRO >C10-C28*	<10.0	10.0	11/16/2024	ND	204	102	200	2.46	
EXT DRO >C28-C36	<10.0	10.0	11/16/2024	ND					

Surrogate: 1-Chlorooctane 92.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.0 % 49.1-148

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Analytical Results For:

ENSOLUM, LLC
 BEN BELILL
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 11/15/2024
 Reported: 11/19/2024
 Project Name: PLU 22 DTD (454)
 Project Number: 03C1558454
 Project Location: 32.20, -103.86686

Sampling Date: 11/14/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Alyssa Parras

Sample ID: CS 18 0.5 (H246989-07)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/16/2024	ND	2.09	105	2.00	18.0	
Toluene*	<0.050	0.050	11/16/2024	ND	2.24	112	2.00	18.9	
Ethylbenzene*	<0.050	0.050	11/16/2024	ND	2.45	123	2.00	24.7	
Total Xylenes*	<0.150	0.150	11/16/2024	ND	7.44	124	6.00	26.0	
Total BTEX	<0.300	0.300	11/16/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	1310	16.0	11/18/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/16/2024	ND	212	106	200	2.56	
DRO >C10-C28*	<10.0	10.0	11/16/2024	ND	204	102	200	2.46	
EXT DRO >C28-C36	<10.0	10.0	11/16/2024	ND					

Surrogate: 1-Chlorooctane 86.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.0 % 49.1-148

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Analytical Results For:

ENSOLUM, LLC
 BEN BELILL
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 11/15/2024
 Reported: 11/19/2024
 Project Name: PLU 22 DTD (454)
 Project Number: 03C1558454
 Project Location: 32.20, -103.86686

Sampling Date: 11/14/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Alyssa Parras

Sample ID: CS 19 0.5 (H246989-08)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/16/2024	ND	2.09	105	2.00	18.0		
Toluene*	<0.050	0.050	11/16/2024	ND	2.24	112	2.00	18.9		
Ethylbenzene*	<0.050	0.050	11/16/2024	ND	2.45	123	2.00	24.7		
Total Xylenes*	<0.150	0.150	11/16/2024	ND	7.44	124	6.00	26.0		
Total BTEX	<0.300	0.300	11/16/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	560	16.0	11/18/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/16/2024	ND	212	106	200	2.56	
DRO >C10-C28*	<10.0	10.0	11/16/2024	ND	204	102	200	2.46	
EXT DRO >C28-C36	<10.0	10.0	11/16/2024	ND					

Surrogate: 1-Chlorooctane 90.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.5 % 49.1-148

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Analytical Results For:

ENSOLUM, LLC
 BEN BELILL
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 11/15/2024
 Reported: 11/19/2024
 Project Name: PLU 22 DTD (454)
 Project Number: 03C1558454
 Project Location: 32.20, -103.86686

Sampling Date: 11/14/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Alyssa Parras

Sample ID: CS 20 0.5 (H246989-09)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/16/2024	ND	2.09	105	2.00	18.0	
Toluene*	<0.050	0.050	11/16/2024	ND	2.24	112	2.00	18.9	
Ethylbenzene*	<0.050	0.050	11/16/2024	ND	2.45	123	2.00	24.7	
Total Xylenes*	<0.150	0.150	11/16/2024	ND	7.44	124	6.00	26.0	
Total BTEX	<0.300	0.300	11/16/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	384	16.0	11/18/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/16/2024	ND	212	106	200	2.56	
DRO >C10-C28*	<10.0	10.0	11/16/2024	ND	204	102	200	2.46	
EXT DRO >C28-C36	<10.0	10.0	11/16/2024	ND					

Surrogate: 1-Chlorooctane 91.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.4 % 49.1-148

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Analytical Results For:

ENSOLUM, LLC
 BEN BELILL
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 11/15/2024
 Reported: 11/19/2024
 Project Name: PLU 22 DTD (454)
 Project Number: 03C1558454
 Project Location: 32.20, -103.86686

Sampling Date: 11/14/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Alyssa Parras

Sample ID: CS 21 0.5 (H246989-10)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/16/2024	ND	2.09	105	2.00	18.0	
Toluene*	<0.050	0.050	11/16/2024	ND	2.24	112	2.00	18.9	
Ethylbenzene*	<0.050	0.050	11/16/2024	ND	2.45	123	2.00	24.7	
Total Xylenes*	<0.150	0.150	11/16/2024	ND	7.44	124	6.00	26.0	
Total BTEX	<0.300	0.300	11/16/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	11/18/2024	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/16/2024	ND	212	106	200	2.56	
DRO >C10-C28*	<10.0	10.0	11/16/2024	ND	204	102	200	2.46	
EXT DRO >C28-C36	<10.0	10.0	11/16/2024	ND					

Surrogate: 1-Chlorooctane 87.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.6 % 49.1-148

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Analytical Results For:

ENSOLUM, LLC
 BEN BELILL
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 11/15/2024
 Reported: 11/19/2024
 Project Name: PLU 22 DTD (454)
 Project Number: 03C1558454
 Project Location: 32.20, -103.86686

Sampling Date: 11/14/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Alyssa Parras

Sample ID: CS 22 0.5 (H246989-11)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/16/2024	ND	2.09	105	2.00	18.0	
Toluene*	<0.050	0.050	11/16/2024	ND	2.24	112	2.00	18.9	
Ethylbenzene*	<0.050	0.050	11/16/2024	ND	2.45	123	2.00	24.7	
Total Xylenes*	<0.150	0.150	11/16/2024	ND	7.44	124	6.00	26.0	
Total BTEX	<0.300	0.300	11/16/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	496	16.0	11/18/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/16/2024	ND	212	106	200	2.56	
DRO >C10-C28*	<10.0	10.0	11/16/2024	ND	204	102	200	2.46	
EXT DRO >C28-C36	<10.0	10.0	11/16/2024	ND					

Surrogate: 1-Chlorooctane 91.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.5 % 49.1-148

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Analytical Results For:

ENSOLUM, LLC
 BEN BELILL
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 11/15/2024
 Reported: 11/19/2024
 Project Name: PLU 22 DTD (454)
 Project Number: 03C1558454
 Project Location: 32.20, -103.86686

Sampling Date: 11/14/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Alyssa Parras

Sample ID: CS 23 0.5 (H246989-12)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/16/2024	ND	2.09	105	2.00	18.0		
Toluene*	<0.050	0.050	11/16/2024	ND	2.24	112	2.00	18.9		
Ethylbenzene*	<0.050	0.050	11/16/2024	ND	2.45	123	2.00	24.7		
Total Xylenes*	<0.150	0.150	11/16/2024	ND	7.44	124	6.00	26.0		
Total BTEX	<0.300	0.300	11/16/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	384	16.0	11/18/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/16/2024	ND	212	106	200	2.56	
DRO >C10-C28*	<10.0	10.0	11/16/2024	ND	204	102	200	2.46	
EXT DRO >C28-C36	<10.0	10.0	11/16/2024	ND					

Surrogate: 1-Chlorooctane 87.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.0 % 49.1-148

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Analytical Results For:

ENSOLUM, LLC
 BEN BELILL
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 11/15/2024
 Reported: 11/19/2024
 Project Name: PLU 22 DTD (454)
 Project Number: 03C1558454
 Project Location: 32.20, -103.86686

Sampling Date: 11/14/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Alyssa Parras

Sample ID: CS 24 0.5 (H246989-13)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/16/2024	ND	2.09	105	2.00	18.0		
Toluene*	<0.050	0.050	11/16/2024	ND	2.24	112	2.00	18.9		
Ethylbenzene*	<0.050	0.050	11/16/2024	ND	2.45	123	2.00	24.7		
Total Xylenes*	<0.150	0.150	11/16/2024	ND	7.44	124	6.00	26.0		
Total BTEX	<0.300	0.300	11/16/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	256	16.0	11/18/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/16/2024	ND	212	106	200	2.56	
DRO >C10-C28*	<10.0	10.0	11/16/2024	ND	204	102	200	2.46	
EXT DRO >C28-C36	<10.0	10.0	11/16/2024	ND					

Surrogate: 1-Chlorooctane 84.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.8 % 49.1-148

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

Analytical Results For:

ENSOLUM, LLC
 BEN BELILL
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 11/15/2024
 Reported: 11/19/2024
 Project Name: PLU 22 DTD (454)
 Project Number: 03C1558454
 Project Location: 32.20, -103.86686

Sampling Date: 11/14/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Alyssa Parras

Sample ID: CS 25 0.5 (H246989-14)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/16/2024	ND	2.09	105	2.00	18.0	
Toluene*	<0.050	0.050	11/16/2024	ND	2.24	112	2.00	18.9	
Ethylbenzene*	<0.050	0.050	11/16/2024	ND	2.45	123	2.00	24.7	
Total Xylenes*	<0.150	0.150	11/16/2024	ND	7.44	124	6.00	26.0	
Total BTEX	<0.300	0.300	11/16/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	432	16.0	11/18/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/16/2024	ND	212	106	200	2.56	
DRO >C10-C28*	188	10.0	11/16/2024	ND	204	102	200	2.46	
EXT DRO >C28-C36	50.1	10.0	11/16/2024	ND					

Surrogate: 1-Chlorooctane 86.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.5 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

ENSOLUM, LLC
 BEN BELILL
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received: 11/15/2024
 Reported: 11/19/2024
 Project Name: PLU 22 DTD (454)
 Project Number: 03C1558454
 Project Location: 32.20, -103.86686

Sampling Date: 11/14/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Alyssa Parras

Sample ID: CS 26 0.5 (H246989-15)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/16/2024	ND	2.09	105	2.00	18.0		
Toluene*	<0.050	0.050	11/16/2024	ND	2.24	112	2.00	18.9		
Ethylbenzene*	<0.050	0.050	11/16/2024	ND	2.45	123	2.00	24.7		
Total Xylenes*	<0.150	0.150	11/16/2024	ND	7.44	124	6.00	26.0		
Total BTEX	<0.300	0.300	11/16/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	480	16.0	11/18/2024	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/18/2024	ND	211	105	200	0.943	
DRO >C10-C28*	<10.0	10.0	11/18/2024	ND	199	99.3	200	0.824	
EXT DRO >C28-C36	<10.0	10.0	11/18/2024	ND					

Surrogate: 1-Chlorooctane 82.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.8 % 49.1-148

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*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- QR-04 The RPD for the BS/BSD was outside of historical limits.
- 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 "Mike Snyder".

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Ensolum, LLC

Project Manager: Ben Beilli

Address: 3122 National Parks Hwy

City: Midland State: TX Zip:

Phone #: 989-854-0852 Email: bbeilli@ensolum.com

Project #: 03C1558454

Project Name: PLU 22 DTD (454)

Project Location: 32.206, -103.86686

Sampler Name: Mario Sarkis

BILL TO

ANALYSIS REQUEST

P.O. #:	Company: XTO Energy
Attn: Colton Brown	Address: 3104 E. Green St.
City: Carlsbad	State: NM Zip: 88220
Phone #: 575-988-2390	Email:

Lab ID	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	BTX	TPH	Chloride						
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL:	OTHER:								
42011889		0.5	C	1	X									X	X	X					
	CS12	0.5	C	1	X									X	X	X					
	CS13	0.5	C	1	X									X	X	X					
	CS14	0.5	C	1	X									X	X	X					
	CS15	0.5	C	1	X									X	X	X					
	CS16	0.5	C	1	X									X	X	X					
	CS17	0.5	C	1	X									X	X	X					
	CS18	0.5	C	1	X									X	X	X					
	CS19	0.5	C	1	X									X	X	X					
	CS20	0.5	C	1	X									X	X	X					
	CS21	0.5	C	1	X									X	X	X					

FOR E&E ACCT: Liability and damages. Cardholder's liability and damages are limited to the amount of the fee charged for the service. The cardholder is responsible for the collection of the applicable service fee. All claims, including those for negligence and any other claim whatsoever, shall be deemed waived unless made in writing and received by Cardinal Laboratories within 30 days of the date of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruption, loss of data, or third party claims, even if such claims are caused in whole or in part by the use of the service. The cardholder agrees to indemnify and hold Cardinal Laboratories harmless from and against all claims, damages, losses, and expenses, including reasonable attorneys' fees, that may be asserted against or incurred by Cardinal Laboratories in connection with the use of the service, whether or not such claims, damages, losses, and expenses are caused in whole or in part by the use of the service.

Relinquished By:

Date: 11-15-24

Time: 3:50

Received By: [Signature]

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

Relinquished By:

Date:

Time:

Received By:

REMARKS: Incident #: NAPP2418049577

Cost Center: 2229831001 / 2250241001

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Observed Temp. °C
Corrected Temp. °C

Sample Condition
Cool Intact ☐ Yes ☐ No

CHECKED BY: (Initials)

Turnaround Time: Standard ☐ Backup (only) Sample Condition

Thermometer ID: 48

Correction Factor: 0.5°C - 0.0°C

Yes ☐ No ☐

FORM-006 R.3.2 10/07/21

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

1062



ANALYSIS REQUEST

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[illegible]

de

EXH

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Ch

X	X	X
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X	X	X
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[illegible][illegible]

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ult: ☐ Yes ☐ No

column.com / kthompson

Incident #: NAPP24

T: 2229831001 / 2250

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☐

11/11/11

factor $-0.5^\circ\text{C} - 0.0^\circ\text{C}$

15.24

ksenne@cardinalallat

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

Page 19 of 19



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

December 02, 2024

BEN BELILL

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: PLU 22 DTD (DUMP)

Enclosed are the results of analyses for samples received by the laboratory on 11/26/24 13:01.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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
 BEN BELILL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 11/26/2024
 Reported: 12/02/2024
 Project Name: PLU 22 DTD (DUMP)
 Project Number: 03C1558454
 Project Location: 32.206, -103.86686

Sampling Date: 11/25/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: CS 12 A 1 (H247260-01)

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	11/27/2024	ND	2.20	110	2.00	2.73	
Toluene*	<0.050	0.050	11/27/2024	ND	2.09	105	2.00	2.73	
Ethylbenzene*	<0.050	0.050	11/27/2024	ND	2.09	104	2.00	2.25	
Total Xylenes*	<0.150	0.150	11/27/2024	ND	6.20	103	6.00	2.44	
Total BTEX	<0.300	0.300	11/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	11/27/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	205	103	200	6.32	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	204	102	200	14.6	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.2 % 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
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 11/26/2024
Reported: 12/02/2024
Project Name: PLU 22 DTD (DUMP)
Project Number: 03C1558454
Project Location: 32.206, -103.86686

Sampling Date: 11/25/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: CS 13 A 1 (H247260-02)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/27/2024	ND	2.20	110	2.00	2.73		
Toluene*	<0.050	0.050	11/27/2024	ND	2.09	105	2.00	2.73		
Ethylbenzene*	<0.050	0.050	11/27/2024	ND	2.09	104	2.00	2.25		
Total Xylenes*	<0.150	0.150	11/27/2024	ND	6.20	103	6.00	2.44		
Total BTEX	<0.300	0.300	11/27/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	11/27/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	205	103	200	6.32	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	204	102	200	14.6	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.2 % 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
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 11/26/2024
Reported: 12/02/2024
Project Name: PLU 22 DTD (DUMP)
Project Number: 03C1558454
Project Location: 32.206, -103.86686

Sampling Date: 11/25/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: CS 15 A 1 (H247260-03)

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/27/2024	ND	2.20	110	2.00	2.73		
Toluene*	<0.050	0.050	11/27/2024	ND	2.09	105	2.00	2.73		
Ethylbenzene*	<0.050	0.050	11/27/2024	ND	2.09	104	2.00	2.25		
Total Xylenes*	<0.150	0.150	11/27/2024	ND	6.20	103	6.00	2.44		
Total BTX	<0.300	0.300	11/27/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 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	32.0	16.0	11/27/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	205	103	200	6.32	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	204	102	200	14.6	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 89.6 % 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
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 11/26/2024
Reported: 12/02/2024
Project Name: PLU 22 DTD (DUMP)
Project Number: 03C1558454
Project Location: 32.206, -103.86686

Sampling Date: 11/25/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: CS 16 A 1 (H247260-04)

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/27/2024	ND	2.20	110	2.00	2.73		
Toluene*	<0.050	0.050	11/27/2024	ND	2.09	105	2.00	2.73		
Ethylbenzene*	<0.050	0.050	11/27/2024	ND	2.09	104	2.00	2.25		
Total Xylenes*	<0.150	0.150	11/27/2024	ND	6.20	103	6.00	2.44		
Total BTX	<0.300	0.300	11/27/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	11/27/2024	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	205	103	200	6.32	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	204	102	200	14.6	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 99.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.1 % 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
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 11/26/2024
Reported: 12/02/2024
Project Name: PLU 22 DTD (DUMP)
Project Number: 03C1558454
Project Location: 32.206, -103.86686

Sampling Date: 11/25/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SW 01 0-1 (H247260-05)

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/27/2024	ND	2.19	110	2.00	0.00302	
Toluene*	<0.050	0.050	11/27/2024	ND	2.24	112	2.00	1.47	
Ethylbenzene*	<0.050	0.050	11/27/2024	ND	2.18	109	2.00	2.20	
Total Xylenes*	<0.150	0.150	11/27/2024	ND	6.83	114	6.00	1.38	
Total BTX	<0.300	0.300	11/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	112	16.0	11/27/2024	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	205	103	200	6.32	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	204	102	200	14.6	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.2 % 49.1-148

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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 11/26/2024
Reported: 12/02/2024
Project Name: PLU 22 DTD (DUMP)
Project Number: 03C1558454
Project Location: 32.206, -103.86686

Sampling Date: 11/25/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SW 02 0-1 (H247260-06)

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/27/2024	ND	2.19	110	2.00	0.00302	
Toluene*	<0.050	0.050	11/27/2024	ND	2.24	112	2.00	1.47	
Ethylbenzene*	<0.050	0.050	11/27/2024	ND	2.18	109	2.00	2.20	
Total Xylenes*	<0.150	0.150	11/27/2024	ND	6.83	114	6.00	1.38	
Total BTX	<0.300	0.300	11/27/2024	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	144	16.0	11/27/2024	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	205	103	200	6.32	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	204	102	200	14.6	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.5 % 49.1-148

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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 11/26/2024
Reported: 12/02/2024
Project Name: PLU 22 DTD (DUMP)
Project Number: 03C1558454
Project Location: 32.206, -103.86686

Sampling Date: 11/26/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: CS 18 A 1 (H247260-07)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/27/2024	ND	2.19	110	2.00	0.00302	
Toluene*	<0.050	0.050	11/27/2024	ND	2.24	112	2.00	1.47	
Ethylbenzene*	<0.050	0.050	11/27/2024	ND	2.18	109	2.00	2.20	
Total Xylenes*	<0.150	0.150	11/27/2024	ND	6.83	114	6.00	1.38	
Total BTEX	<0.300	0.300	11/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	11/27/2024	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	205	103	200	6.32	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	204	102	200	14.6	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 11/26/2024
Reported: 12/02/2024
Project Name: PLU 22 DTD (DUMP)
Project Number: 03C1558454
Project Location: 32.206, -103.86686

Sampling Date: 11/26/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: CS 25 A 1 (H247260-08)

BTEx 8021B		mg/kg	Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/27/2024	ND	2.19	110	2.00	0.00302	
Toluene*	<0.050	0.050	11/27/2024	ND	2.24	112	2.00	1.47	
Ethylbenzene*	<0.050	0.050	11/27/2024	ND	2.18	109	2.00	2.20	
Total Xylenes*	<0.150	0.150	11/27/2024	ND	6.83	114	6.00	1.38	
Total BTEX	<0.300	0.300	11/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	11/27/2024	ND	432	108	400	3.77	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	205	103	200	6.32	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	204	102	200	14.6	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 93.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.6 % 49.1-148

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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 11/26/2024
Reported: 12/02/2024
Project Name: PLU 22 DTD (DUMP)
Project Number: 03C1558454
Project Location: 32.206, -103.86686

Sampling Date: 11/26/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SW 03 0-1 (H247260-09)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/27/2024	ND	2.19	110	2.00	0.00302	
Toluene*	<0.050	0.050	11/27/2024	ND	2.24	112	2.00	1.47	
Ethylbenzene*	<0.050	0.050	11/27/2024	ND	2.18	109	2.00	2.20	
Total Xylenes*	<0.150	0.150	11/27/2024	ND	6.83	114	6.00	1.38	
Total BTEX	<0.300	0.300	11/27/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	11/27/2024	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	205	103	200	6.32	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	204	102	200	14.6	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.8 % 49.1-148

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Analytical Results For:

ENSOLUM
BEN BELILL
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 11/26/2024
Reported: 12/02/2024
Project Name: PLU 22 DTD (DUMP)
Project Number: 03C1558454
Project Location: 32.206, -103.86686

Sampling Date: 11/26/2024
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: SW 04 0-1 (H247260-10)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/27/2024	ND	2.19	110	2.00	0.00302	
Toluene*	<0.050	0.050	11/27/2024	ND	2.24	112	2.00	1.47	
Ethylbenzene*	<0.050	0.050	11/27/2024	ND	2.18	109	2.00	2.20	
Total Xylenes*	<0.150	0.150	11/27/2024	ND	6.83	114	6.00	1.38	
Total BTEX	<0.300	0.300	11/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	11/27/2024	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/27/2024	ND	205	103	200	6.32	
DRO >C10-C28*	<10.0	10.0	11/27/2024	ND	204	102	200	14.6	
EXT DRO >C28-C36	<10.0	10.0	11/27/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.1 % 49.1-148

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Notes and Definitions

S-05	The surrogate recovery is outside of lab established statistical control 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 "C. D. Keene", is written over a horizontal line.

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]



APPENDIX C

September 23, 2024 Remediation Work Plan



APPENDIX F



September 23, 2024

New Mexico Oil Conservation Division

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

**Re: Remediation Work Plan
PLU 22 DTD
Incident Number NAPP2418049577
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 site assessment and delineation activities completed to date and propose to complete confirmation soil sampling to address an unauthorized release at the PLU 22 DTD (Site). The purpose of the site assessment and delineation activities was to assess for the presence or absence of impacted soil resulting from a release of produced water and crude oil at the Site. The following *Work Plan* proposes confirmation soil sampling to be completed within the release extent area for Incident Number NAPP2418049577.

SITE DESCRIPTION AND RELEASE SUMMARY

The release was discovered in Unit G, Section 22, Township 24 South, Range 30 East in Eddy County, New Mexico (32.206°, -103.86686°) and is associated with oil and gas exploration and production operations on federal land managed by the Bureau of Land Management (BLM).

On June 26, 2024, an illegal dump was discovered along an active lease road. An estimated 26 barrels (bbls) of produced water and 26 bbls of crude oil were released onto the surface of the lease road and into an adjacent pasture area. No fluids were recovered. Upon discovery of the illegal dump, the Eddy County sheriff's department was notified and case number L240001598 was filed. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) via Notification of Release (NOR) and submitted an Initial C-141 Application (C-141) on June 28, 2024. The release was assigned Incident Number NAPP2418049577.

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 nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Society (USGS) well 321203103511801, located 0.75 miles to the southeast of the Site. The groundwater well has a reported depth to groundwater of 423 feet bgs and a total depth of 367

feet bgs. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a seasonal dry wash, located approximately 179 feet south 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): 100 mg/kg
- Chloride: 600 mg/kg

SITE ASSESSMENT AND DELINEATION ACTIVITIES

On July 9, 2024, Ensolum personnel conducted site assessment activities at the Site to evaluate the release extent based on information provided on the C-141 and visual observations. The release extent area was mapped utilizing a handheld Global Positioning System (GPS) unit and is depicted on Figure 2. Photographic documentation was conducted and a Photographic Log is included in Appendix B.

On July 24, 2024, Ensolum personnel returned to the site to complete delineation and soil sampling activities to assess the presence or absence of impacted soil. Ten delineation soil samples (SS01 through SS10) were collected around the release extent from a depth of 0.5 feet bgs to define the lateral extent of the release. Six boreholes (BH01 through BH06) were advanced via hand auger to a maximum depth of 1-foot bgs within the release extent to determine the vertical extent of the release. Two discrete delineation soil samples were collected from each borehole at depths of 0.5 feet bgs and 1-foot bgs. The delineation soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. Field screening results and observations for each pothole were documented on a lithologic/soil sampling log and are included as Appendix C. The delineation soil sample locations are depicted on Figure 2.

The 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 (COC): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following Standards Method SM4500.

Laboratory analytical results for all delineation soil samples collected indicated that all COC concentrations were compliant with Closure Criteria and reclamation requirement. Based on laboratory analytical results, the lateral and vertical extent of the release is defined. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical report is included in Appendix D.

XTO Energy Inc.
Remediation Work Plan
PLU 22 DTD



PROPOSED REMEDIATION WORK PLAN

Laboratory analytical results for all delineation soil sampling completed indicate the absence of impacted soil across an approximate 10,200 square-foot release area. XTO proposes to complete the following remediation activities:

- Collect 5-point composite confirmation soil samples on the surface of the access road and pasture areas, within the release extent. The 5-point composite samples will be collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing.
- Due to the size of the release extent, XTO requests a variance for frequency of confirmation samples. XTO proposes the five-point composite samples to be collected at a sampling frequency of 400 square feet. The proposed sampling frequency would reduce the total amount of samples from approximately 51 samples (200 square feet) to approximately 26 samples.
- If laboratory analytical results from surface confirmation soil sampling indicates the presence of impacted soil, excavation of impacted soil will ensue, and 5-point composite soil samples will be collected from the floor and sidewall of the final excavated extent. All confirmation soil samples collected will be handled and analyzed for the same COCs as described above.
- The release extent will be monitored in the pasture area for impacts to vegetation. If any vegetation impacts are noted, XTO will resurface the stressed pasture surface area to match pre-existing Site conditions and re-seeded with the recommended BLM seed mixture.

XTO believes this *Work Plan* is protective of human health, the environment, and groundwater. As such, XTO requests approval of this *Work Plan* by NMOCD. XTO will complete the 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

A handwritten signature in black ink, appearing to read "Tracy Hillard".

Tracy Hillard
Project Manager

A handwritten signature in black ink, appearing to read "Tacoma Morrissey".

Tacoma Morrissey
Associate Principal

cc:
Colton Brown, XTO
Kaylan Dirkx, XTO
BLM

Appendices:
Figure 1 Site Receptor Map
Figure 2 Delineation Soil Sample Locations
Table 1 Soil Sample Analytical Results
Appendix A Referenced Well Records

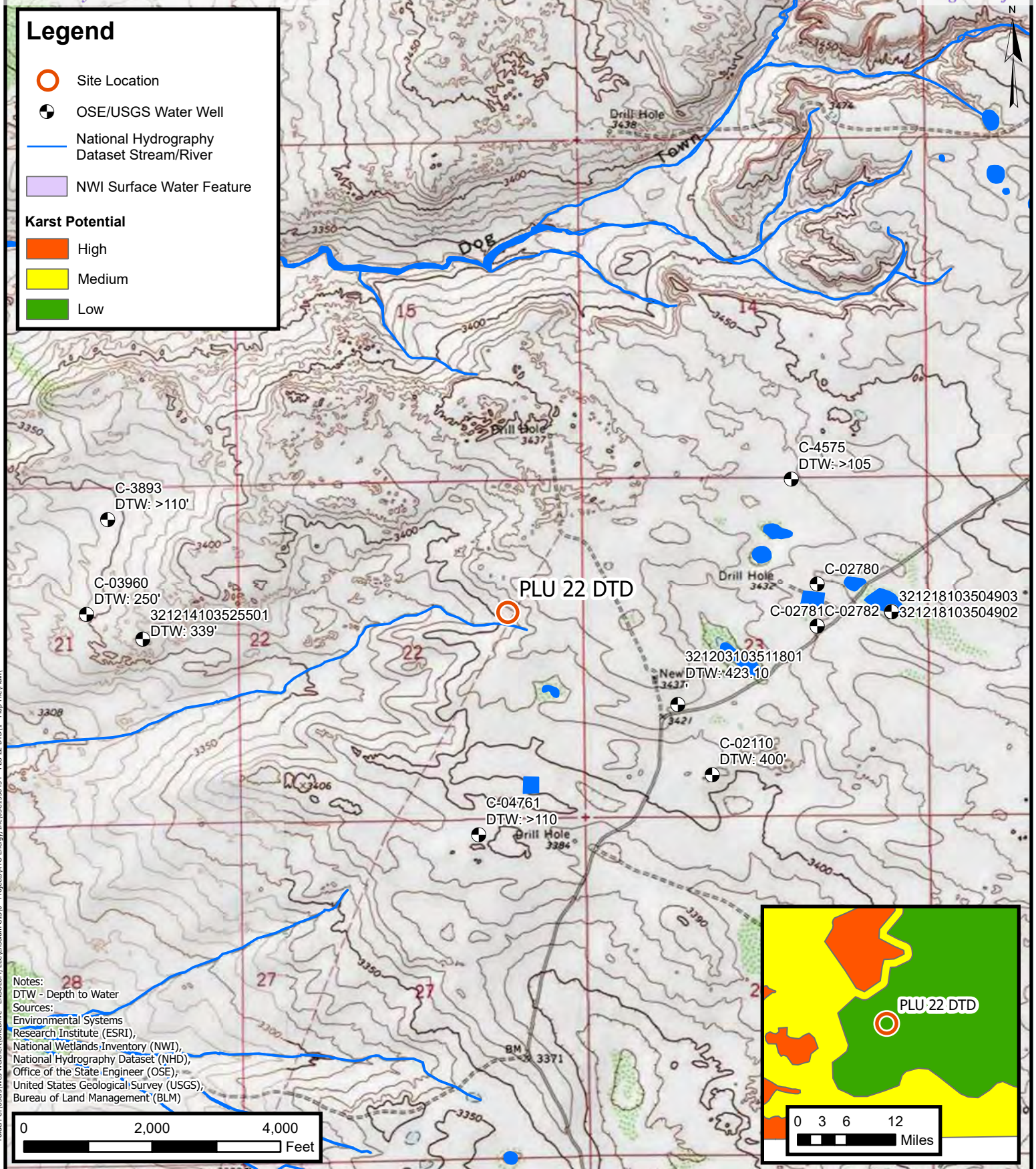
XTO Energy Inc.
Remediation Work Plan
PLU 22 DTD



Appendix B Photographic Log
Appendix C Lithologic Soil Sampling Logs
Appendix D Laboratory Analytical Reports & Chain-of-Custody Documentation



FIGURES



Site Receptor Map

XTO Energy, Inc

PLU 22 DTD

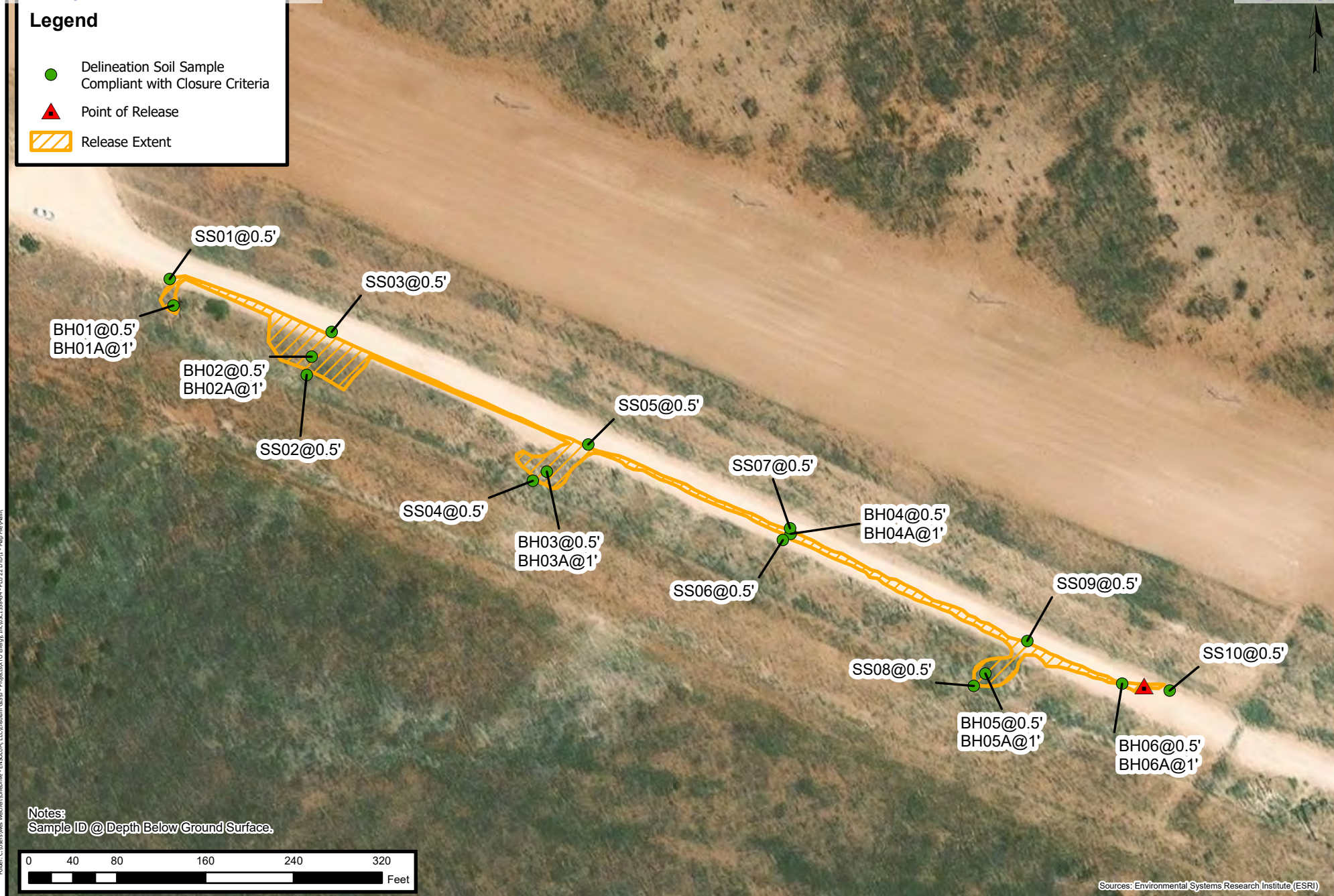
Incident Number: NAPP2418049577

Unit G, Sec 22, T24S, R30E

Eddy Co, New Mexico, United States

FIGURE

1



Delineation Soil Sample Locations

XTO Energy, Inc
PLU 22 DTD
Incident Number: NAPP2418049577
Unit G, Sec 22, T24S, R30E
Eddy Co, New Mexico, United States

FIGURE
2



TABLES



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
PLU 22 DTD
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	NE	100	600
Delineation Soil Samples										
SS01	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS02	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS03	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208
SS04	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SS05	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
SS06	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SS07	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	288
SS08	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS09	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
SS10	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	224
BH01	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
BH01A	07/24/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
BH02	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
BH02A	07/24/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
BH03	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
BH03A	07/24/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
BH04	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
BH04A	07/24/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
BH05	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
BH05A	07/24/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
BH06	07/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
BH06A	07/24/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0

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

National Water Information System: Web Interface

USGS Water Resources

Data Category:
Groundwater

Geographic Area:
New Mexico

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 New Mexico

Click to hide state-specific text

 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

Section	Code	Description
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
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 New Mexico: Water Levels
URL: <https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?>



Page Contact Information: [New Mexico Water Data Maintainer](#)
Page Last Modified: 2024-07-05 13:50:43 EDT
0.35 0.33 nadww02



APPENDIX B

Photographic Log

**Photographic Log**

XTO Energy, Inc

PLU 22 DTD

nAPP2418049577



Photograph: 1 Date: 7/9/2024
Description: Soil staining in release footprint
View: East



Photograph: 2 Date: 7/9/2024
Description: Soil staining in release footprint
View: West



Photograph: 3 Date: 7/24/2024
Description: Delineation activities
View: West





Photograph: 4 Date: 7/24/2024
Description: Delineation activities
View: East





APPENDIX C


Lithologic Soil Sampling Logs


		Sample Name: BH01		Date: 7/24/2024				
		Site Name: PLU 22 DTD						
		Incident Number: nAPP2418049577						
		Job Number: 03C1558454						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.205964, -103.866849			Logged By: US		Method: Hand Auger			
			Hole Diameter: 3"		Total Depth: 2'			
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.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP	(0-2') SAND, dark brown, fine grained, some clay no odor
Damp	<168	0.0	Y	BH01	0.5			
Damp	<168	0.0	N	BH01A	1	1		(@1') trace silt
Damp	<168	0.0	N		2	2		(@2') few clay
						Total Depth @ 2 feet bgs		

					Sample Name: BH02		Date: 7/24/2024	
					Site Name: PLU 22 DTD			
					Incident Number: nAPP2418049577			
					Job Number: 03C1558454			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: US		Method: Hand Auger	
Coordinates: 32.205827, -103.866447					Hole Diameter: 3"		Total Depth: 1'	
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.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
Damp	<168	0.4	N	BH02	0.5	0	SP	(0-1') SAND, brown, fine grained, few clay no odor
Damp	<168	0.6	N	BH02A	1	1		(@1') trace silt
Total Depth @ 1-foot bgs								

		Sample Name: BH03		Date: 7/24/2024				
		Site Name: PLU 22 DTD						
		Incident Number: nAPP2418049577						
		Job Number: 03C1558454						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.205537, -103.865763			Logged By: US		Method: Hand Auger			
			Hole Diameter: 3"		Total Depth: 1'			
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.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP	(0-1') SAND, brown, fine grained, few clay no odor
Damp	<168	0.0	N	BH03	0.5			
Damp	<168	1.0	N	BH03A	1	1		(@1') some silt
						Total Depth @ 1-foot bgs		

						Sample Name: BH04		Date: 7/24/2024	
						Site Name: PLU 22 DTD			
						Incident Number: nAPP2418049577			
						Job Number: 03C1558454			
LITHOLOGIC / SOIL SAMPLING LOG						Logged By: US		Method: Hand Auger	
Coordinates: 32.205378, -103.865044						Hole Diameter: 3"		Total Depth: 1'	
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.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
Damp	196	0.0	N	BH04	0.5	0	SP	(0-1') SAND, brown, fine grained, trace clay no odor	
Damp	<168	0.0	N	BH04A	1	1			
						Total Depth @ 1-foot bgs			

		Sample Name: BH05		Date: 7/24/2024				
		Site Name: PLU 22 DTD						
		Incident Number: nAPP2418049577						
		Job Number: 03C1558454						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.205026, -103.864478			Logged By: US		Method: Hand Auger			
			Hole Diameter: 3"		Total Depth: 1'			
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.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP	(0-1') SAND, brown, fine grained, some clay no odor
Damp	<168	0.0	N	BH05	0.5			
Damp	<168	0.0	N	BH05A	1	1		
						Total Depth @ 1-foot bgs		

								Sample Name: BH06		Date: 7/24/2024					
								Site Name: PLU 22 DTD							
								Incident Number: nAPP2418049577							
								Job Number: 03C1558454							
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: US		Method: Hand Auger					
Coordinates: 32.204992, -103.864076								Hole Diameter: 3"		Total Depth: 1'					
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.															
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions							
						0	SP	(0-1') SAND, brown, fine grained, little clay no odor							
Damp	<168	0.0	N	BH06	0.5										
Damp	<168	0.0	N	BH06A	1	1									
						Total Depth @ 1-foot bgs									



APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation



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

July 30, 2024

MARIAHA O'DELL

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: PLU 22 DTD

Enclosed are the results of analyses for samples received by the laboratory on 07/25/24 14:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SS 01 0.5' (H244449-01)

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	07/29/2024	ND	1.96	98.1	2.00	2.95	
Toluene*	<0.050	0.050	07/29/2024	ND	1.89	94.5	2.00	3.27	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	1.98	99.1	2.00	3.41	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	5.81	96.9	6.00	3.37	
Total BTEX	<0.300	0.300	07/29/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	07/29/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	178	88.8	200	2.32	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	172	86.2	200	1.66	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 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
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SS 02 0.5' (H244449-02)

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	07/29/2024	ND	1.96	98.1	2.00	2.95		
Toluene*	<0.050	0.050	07/29/2024	ND	1.89	94.5	2.00	3.27		
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	1.98	99.1	2.00	3.41		
Total Xylenes*	<0.150	0.150	07/29/2024	ND	5.81	96.9	6.00	3.37		
Total BTEX	<0.300	0.300	07/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.7 % 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	<16.0	16.0	07/29/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	178	88.8	200	2.32	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	172	86.2	200	1.66	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 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
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SS 03 0.5' (H244449-03)

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	07/29/2024	ND	1.96	98.1	2.00	2.95		
Toluene*	<0.050	0.050	07/29/2024	ND	1.89	94.5	2.00	3.27		
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	1.98	99.1	2.00	3.41		
Total Xylenes*	<0.150	0.150	07/29/2024	ND	5.81	96.9	6.00	3.37		
Total BTEX	<0.300	0.300	07/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	07/29/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	178	88.8	200	2.32	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	172	86.2	200	1.66	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 121 % 48.2-134

Surrogate: 1-Chlorooctadecane 124 % 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
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SS 04 0.5' (H244449-04)

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	07/29/2024	ND	1.96	98.1	2.00	2.95	
Toluene*	<0.050	0.050	07/29/2024	ND	1.89	94.5	2.00	3.27	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	1.98	99.1	2.00	3.41	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	5.81	96.9	6.00	3.37	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.1 % 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	16.0	16.0	07/29/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	178	88.8	200	2.32	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	172	86.2	200	1.66	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 119 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SS 05 0.5' (H244449-05)

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	07/29/2024	ND	1.96	98.1	2.00	2.95		
Toluene*	<0.050	0.050	07/29/2024	ND	1.89	94.5	2.00	3.27		
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	1.98	99.1	2.00	3.41		
Total Xylenes*	<0.150	0.150	07/29/2024	ND	5.81	96.9	6.00	3.37		
Total BTEX	<0.300	0.300	07/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.4 % 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	07/29/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	178	88.8	200	2.32	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	172	86.2	200	1.66	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 123 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SS 06 0.5' (H244449-06)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	1.96	98.1	2.00	2.95	
Toluene*	<0.050	0.050	07/29/2024	ND	1.89	94.5	2.00	3.27	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	1.98	99.1	2.00	3.41	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	5.81	96.9	6.00	3.37	
Total BTEX	<0.300	0.300	07/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.1 % 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	32.0	16.0	07/29/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	178	88.8	200	2.32	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	172	86.2	200	1.66	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 119 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SS 07 0.5' (H244449-07)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	1.96	98.1	2.00	2.95	
Toluene*	<0.050	0.050	07/29/2024	ND	1.89	94.5	2.00	3.27	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	1.98	99.1	2.00	3.41	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	5.81	96.9	6.00	3.37	
Total BTEx	<0.300	0.300	07/29/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	07/29/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	178	88.8	200	2.32	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	172	86.2	200	1.66	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SS 08 0.5' (H244449-08)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/29/2024	ND	1.96	98.1	2.00	2.95		
Toluene*	<0.050	0.050	07/29/2024	ND	1.89	94.5	2.00	3.27		
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	1.98	99.1	2.00	3.41		
Total Xylenes*	<0.150	0.150	07/29/2024	ND	5.81	96.9	6.00	3.37		
Total BTEX	<0.300	0.300	07/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.9 % 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	<16.0	16.0	07/29/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	178	88.8	200	2.32	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	172	86.2	200	1.66	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 122 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SS 09 0.5' (H244449-09)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	1.96	98.1	2.00	2.95	
Toluene*	<0.050	0.050	07/29/2024	ND	1.89	94.5	2.00	3.27	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	1.98	99.1	2.00	3.41	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	5.81	96.9	6.00	3.37	
Total BTEX	<0.300	0.300	07/29/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	07/29/2024	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	177	88.3	200	4.71	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	170	84.8	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SS 10 0.5' (H244449-10)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/29/2024	ND	2.20	110	2.00	8.58		
Toluene*	<0.050	0.050	07/29/2024	ND	2.27	113	2.00	9.03		
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.42	121	2.00	9.90		
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.18	120	6.00	9.57		
Total BTEx	<0.300	0.300	07/29/2024	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	224	16.0	07/29/2024	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	177	88.3	200	4.71	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	170	84.8	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 94.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH 01 0.5' (H244449-11)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/29/2024	ND	2.20	110	2.00	8.58		
Toluene*	<0.050	0.050	07/29/2024	ND	2.27	113	2.00	9.03		
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.42	121	2.00	9.90		
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.18	120	6.00	9.57		
Total BTEX	<0.300	0.300	07/29/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	07/29/2024	ND	480	120	400	10.5		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	177	88.3	200	4.71	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	170	84.8	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 91.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH 01A 1' (H244449-12)

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	07/29/2024	ND	2.20	110	2.00	8.58	
Toluene*	<0.050	0.050	07/29/2024	ND	2.27	113	2.00	9.03	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.42	121	2.00	9.90	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.18	120	6.00	9.57	
Total BTEX	<0.300	0.300	07/29/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	07/29/2024	ND	480	120	400	10.5		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	177	88.3	200	4.71	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	170	84.8	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 97.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH 02 0.5' (H244449-13)

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	07/29/2024	ND	2.20	110	2.00	8.58		
Toluene*	<0.050	0.050	07/29/2024	ND	2.27	113	2.00	9.03		
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.42	121	2.00	9.90		
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.18	120	6.00	9.57		
Total BTEx	<0.300	0.300	07/29/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	07/29/2024	ND	480	120	400	10.5		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	177	88.3	200	4.71	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	170	84.8	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH 02A 1' (H244449-14)

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	07/29/2024	ND	2.20	110	2.00	8.58	
Toluene*	<0.050	0.050	07/29/2024	ND	2.27	113	2.00	9.03	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.42	121	2.00	9.90	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.18	120	6.00	9.57	
Total BTEX	<0.300	0.300	07/29/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	07/29/2024	ND	480	120	400	10.5		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	177	88.3	200	4.71	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	170	84.8	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 88.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH 03 0.5' (H244449-15)

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	07/29/2024	ND	2.20	110	2.00	8.58	
Toluene*	<0.050	0.050	07/29/2024	ND	2.27	113	2.00	9.03	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.42	121	2.00	9.90	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.18	120	6.00	9.57	
Total BTEX	<0.300	0.300	07/29/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	07/29/2024	ND	480	120	400	10.5		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	177	88.3	200	4.71	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	170	84.8	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 91.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH 03A 1' (H244449-16)

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	07/29/2024	ND	2.20	110	2.00	8.58		
Toluene*	<0.050	0.050	07/29/2024	ND	2.27	113	2.00	9.03		
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.42	121	2.00	9.90		
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.18	120	6.00	9.57		
Total BTEX	<0.300	0.300	07/29/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	07/29/2024	ND	480	120	400	10.5		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	177	88.3	200	4.71	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	170	84.8	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH 04 0.5' (H244449-17)

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	07/29/2024	ND	2.20	110	2.00	8.58		
Toluene*	<0.050	0.050	07/29/2024	ND	2.27	113	2.00	9.03		
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.42	121	2.00	9.90		
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.18	120	6.00	9.57		
Total BTEx	<0.300	0.300	07/29/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	07/29/2024	ND	480	120	400	10.5		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	177	88.3	200	4.71	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	170	84.8	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 97.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH 04A 1' (H244449-18)

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2024	ND	2.20	110	2.00	8.58	
Toluene*	<0.050	0.050	07/29/2024	ND	2.27	113	2.00	9.03	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.42	121	2.00	9.90	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.18	120	6.00	9.57	
Total BTX	<0.300	0.300	07/29/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	07/29/2024	ND	480	120	400	10.5		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	177	88.3	200	4.71	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	170	84.8	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 99.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH 05 0.5' (H244449-19)

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	07/29/2024	ND	2.20	110	2.00	8.58		
Toluene*	<0.050	0.050	07/29/2024	ND	2.27	113	2.00	9.03		
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.42	121	2.00	9.90		
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.18	120	6.00	9.57		
Total BTEX	<0.300	0.300	07/29/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	07/29/2024	ND	480	120	400	10.5		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	177	88.3	200	4.71	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	170	84.8	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ENSOLUM
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH 05A 1' (H244449-20)

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	07/29/2024	ND	2.20	110	2.00	8.58		
Toluene*	<0.050	0.050	07/29/2024	ND	2.27	113	2.00	9.03		
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.42	121	2.00	9.90		
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.18	120	6.00	9.57		
Total BTEx	<0.300	0.300	07/29/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	07/29/2024	ND	480	120	400	10.5		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	177	88.3	200	4.71	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	170	84.8	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 97.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.3 % 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
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH 06 0.5' (H244449-21)

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	07/29/2024	ND	2.20	110	2.00	8.58		
Toluene*	<0.050	0.050	07/29/2024	ND	2.27	113	2.00	9.03		
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.42	121	2.00	9.90		
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.18	120	6.00	9.57		
Total BTEX	<0.300	0.300	07/29/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	07/29/2024	ND	480	120	400	10.5		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	177	88.3	200	4.71	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	170	84.8	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 92.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.1 % 49.1-148

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Analytical Results For:

ENSOLUM
 MARIAHA O'DELL
 3122 NATIONAL PARKS HWY
 CARLSBAD NM, 88220
 Fax To:

Received: 07/25/2024
 Reported: 07/30/2024
 Project Name: PLU 22 DTD
 Project Number: 03C1558454
 Project Location: XTO 32.206000,-103.866860

Sampling Date: 07/24/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BH 06A 1' (H244449-22)

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	07/29/2024	ND	2.20	110	2.00	8.58	
Toluene*	<0.050	0.050	07/29/2024	ND	2.27	113	2.00	9.03	
Ethylbenzene*	<0.050	0.050	07/29/2024	ND	2.42	121	2.00	9.90	
Total Xylenes*	<0.150	0.150	07/29/2024	ND	7.18	120	6.00	9.57	
Total BTEX	<0.300	0.300	07/29/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	07/29/2024	ND	480	120	400	10.5		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2024	ND	177	88.3	200	4.71	
DRO >C10-C28*	<10.0	10.0	07/29/2024	ND	170	84.8	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	07/29/2024	ND					

Surrogate: 1-Chlorooctane 93.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.4 % 49.1-148

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Notes and Definitions

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

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

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 3

Company Name: Ensolum, LLC		P.O. #:		ANALYSIS REQUEST																									
Project Manager: Mariah O'dell		Company: XTO Energy																											
Address: 3122 National Parks Hwy		Attn: Amy Ruth																											
City: Carlsbad		Address: 3104 E Green st																											
Phone #: 970-319-4364		City: Carlsbad																											
Fax #: 970-319-4364		State: NM Zip: 88220																											
Project #: 03C1558454		Phone #:																											
Project Name: PLU 22 DTD		Fax #:																											
Project Location: 32.206000, -103.866860																													
Sampler Name: Uriel Santillana																													
FOR LAB USE ONLY																													
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX			PRESERV.		SAMPLING																			
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME														
1	5501	0.5'	6	1			X							7/24/24	1133	X	Chlorides	X	X	X									
2	5502														1240			TPH											
3	5503														1329			BTEX											
4	5504														1349														
5	5505														1355														
6	5506														1450														
7	5507														1448														
8	5508														1533														
9	5509														1539														
10	5510														1550														
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Relinquished By:		Date: 7-25-24		Received By:		Date: 7-25-24		Time: 1435		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #:		All Results are emailed. Please provide Email address: Modell@ensolum.com																	
Relinquished By:		Date: 7-25-24		Received By:		Date: 7-25-24		Time: 1435		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #:		All Results are emailed. Please provide Email address: Modell@ensolum.com																	
Delivered By: (Circle One)		Observed Temp. °C: 8.6		Sample Condition		CHECKED BY: (Initials)		Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Bacteria (only) <input type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>		Sample Condition Observed Temp. °C																	
Sampler - UPS - Bus - Other:		Corrected Temp. °C		Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>		No <input type="checkbox"/> Yes <input type="checkbox"/>		No <input type="checkbox"/> Yes <input type="checkbox"/>		No <input type="checkbox"/> Yes <input type="checkbox"/>		Corrected Temp. °C																	
† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com																													



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC		BILL TO		ANALYSIS REQUEST													
Project Manager: Manaha O'dell		P.O. #:															
Address: 3122 National Parks Hwy		Company: XTO Energy															
City: Carlsbad		Attn: Amy Ruth															
Phone #: 970-319-4364		Address: 3104 E Green st															
Fax #: 859-436-4364		City: Carlsbad															
Project #: 03C1558454		State: NM Zip: 88220															
Project Name: PLU 22 DTD		Phone #:															
Project Location: 32.206000, -103.866860		Fax #:															
Sampler Name: Uriel Santillana																	
FOR LAB USE ONLY																	
Lab I.D.		Sample I.D.		Depth (feet)		(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX		PRESERV		SAMPLING			
										GROUNDWATER							
										WASTEWATER							
										SOIL							
										OIL							
										SLUDGE							
										OTHER :							
										ACID/BASE:							
										ICE / COOL							
										OTHER :							
										DATE		TIME					
11244444		BH01		0.5		G		1		7/24/24		1136		X			
12		BH02A		1								1137		X			
13		BH02		0.5'								1230		X			
14		BH02A		1								1236					
15		BH03		0.5								1346					
16		BH03A		1								1347					
17		BH04		0.5								1441					
18		BH04A		1								1444					
19		BH05		0.5								1529					
20		BH05A		1								1531					
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Relinquished By: <i>[Signature]</i>														All Results are emailed. Please provide Email address:			
Relinquished By: <i>[Signature]</i>														Model@ensolum.com			
Date: 7-25-24														REMARKS: Cost Center: 2229831001 & 2250241001			
Time: 7:435														Incident Number: nAPP2418049577			
Date: <i>[Signature]</i>																	
Time: <i>[Signature]</i>																	
Delivered By: (Circle One)		Observed Temp. °C		Sample Condition		CHECKED BY: (Initials)		Turnaround Time:		Standard		Bacteria (only)		Sample Condition			
Sampler - UPS - Bus - Other:		26		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		26		Rush <input checked="" type="checkbox"/>		Cool <input type="checkbox"/> Intact <input type="checkbox"/>		Cool <input type="checkbox"/> Intact <input type="checkbox"/>		Observed Temp. °C			
		Corrected Temp. °C		Yes <input type="checkbox"/> No <input type="checkbox"/>				Thermometer ID #140		Yes <input type="checkbox"/> No <input type="checkbox"/>		Yes <input type="checkbox"/> No <input type="checkbox"/>		Corrected Temp. °C			
								Correction Factor: 0.0°C		Yes <input type="checkbox"/> No <input type="checkbox"/>		Yes <input type="checkbox"/> No <input type="checkbox"/>					



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

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

QUESTIONS

Action 415065

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 415065
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2418049577
Incident Name	NAPP2418049577 PLU 22 DTD @ 0
Incident Type	Release Other
Incident Status	Remediation Closure Report Received
Incident Facility	[fAPP2329131432] PLU 22 DTD CVB

Location of Release Source*Please answer all the questions in this group.*

Site Name	PLU 22 DTD
Date Release Discovered	06/26/2024
Surface Owner	Federal

Incident Details*Please answer all the questions in this group.*

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

Nature and Volume of Release*Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.*

Crude Oil Released (bbls) Details	Cause: Vandalism Other (Specify) Crude Oil Released: 26 BBL Recovered: 0 BBL Lost: 26 BBL.
Produced Water Released (bbls) Details	Cause: Vandalism Other (Specify) Produced Water Released: 26 BBL Recovered: 0 BBL Lost: 26 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
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)	Illegal dump from a third party was discovered along XTO lease road. Eddy County Sheriff's Case#: L240001598 / Deputy A. Johnson

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QUESTIONS, Page 2

Action 415065

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 415065
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

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

Initial Response

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

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

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

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

I hereby agree and sign off to the above statement	Name: Colton Brown Title: Environmental Advisor Email: colton.s.brown@exxonmobil.com Date: 12/26/2024
--	--

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Oil Conservation Division
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QUESTIONS, Page 3

Action 415065

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:
	5380
	Action Number:
	415065
Action Type:	
[C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

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 100 and 200 (ft.)
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	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1000 (ft.) and ½ (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	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
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

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

Chloride (EPA 300.0 or SM4500 Cl B)	288
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	0
GRO+DRO (EPA SW-846 Method 8015M)	0
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	07/09/2024
On what date will (or did) the final sampling or liner inspection occur	12/23/2024
On what date will (or was) the remediation complete(d)	12/23/2024
What is the estimated surface area (in square feet) that will be reclaimed	1409
What is the estimated volume (in cubic yards) that will be reclaimed	52
What is the estimated surface area (in square feet) that will be remediated	1409
What is the estimated volume (in cubic yards) that will be remediated	52

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 415065

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 415065
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

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	OWL LANDFILL JAL [fJEG1635837366]
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	No
OR is the off-site disposal site, to be used, an NMED facility	No
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	Yes
Other Non-listed Remedial Process. Please specify	Confirm absence of impacted soil
<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: 12/26/2024
<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>	

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 5

Action 415065

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 415065
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

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 415065

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:
	5380
	Action Number:
	415065
Action Type:	
[C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	405352
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/27/2024
What was the (estimated) number of samples that were to be gathered	10
What was the sampling surface area in square feet	4000

Remediation Closure Request

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

Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	1409
What was the total volume (cubic yards) remediated	52
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	1409
What was the total volume (in cubic yards) reclaimed	52
Summarize any additional remediation activities not included by answers (above)	Site assessment, delineation, and excavation activities were conducted at the Site to address the June 6, 2024, release of produced water and crude oil. Laboratory analytical results for all confirmation soil samples collected from the final excavation extent indicated that all COC concentrations were compliant with the Closure Criteria. Based on soil sample analytical results, no further remediation was required. The excavation has been backfilled with material purchased locally and recontour the Site to match pre-existing Site conditions. Excavation of impacted soil has mitigated impacts at the Site. Depth to groundwater has been estimated to be greater than 100 feet bgs and no other sensitive receptors were identified near the Site. XTO believes these remedial actions are protective of human health, the environment, and groundwater.

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

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

I hereby agree and sign off to the above statement	Name: Colton Brown Title: Environmental Advisor Email: colton.s.brown@exxonmobil.com Date: 12/26/2024
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QUESTIONS, Page 7

Action 415065

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 415065
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 415065

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 415065
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	This Remediation Closure Report is approved. Areas reasonably needed for production or subsequent drilling operations will need to be reclaimed and revegetated as soon as they are no longer reasonably needed. A report for reclamation and revegetation will need to be submitted and approved prior to this incident receiving the final status of "Restoration Complete".	2/10/2025