



March 17, 2025

**New Mexico Oil Conservation Division**

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

**Re: Closure Request  
PLU 043 SWD  
Incident Number nAPP2426227740  
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 site assessment, excavation, and soil sampling activities at the PLU 043 SWD (Site). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil following a release of produced water onto a Right-of-Way (ROW) and pasture area. Based on field observations, field screening activities, and soil sample laboratory analytical results, XTO is submitting this *Closure Request*, describing site assessment and excavation activities that have occurred and requesting no further action for Incident Number nAPP2426227740.

**SITE DESCRIPTION AND RELEASE SUMMARY**

The Site is located in Unit M, Section 21, Township 24 South, Range 31 East, in Eddy County, New Mexico (32.197664°, -103.789553°) and is associated with oil and gas exploration and production operations on Bureau of Land Management (BLM) Federal Land.

On September 17, 2024, a leak developed on a riser resulting in the release of approximately 1,029 barrels (bbls) of produced water onto a ROW and adjacent pasture area. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; 790 bbls of released produced water were recovered. XTO reported the release to the NMOCD via Notification of Release (NOR) and an Initial C-141 Application (C-141) on September 18, 2024. The release was assigned Incident Number nAPP2426772240.

**SITE CHARACTERIZATION AND CLOSURE CRITERIA**

The Site was characterized according to 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. Potential site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on a soil boring drilled for determination of regional groundwater depth. On December 30, 2020, a soil boring permitted by New Mexico Office of the State Engineer (OSE) well C-4499, located approximately 0.4 north of the Site was drilled utilizing hollow stem auger drilling method. The boring

was drilled to a total depth of 110 feet bgs. A field geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling activities. The borehole was left open for over 72 hours to allow for the potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater at that location is greater than 110 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips. The Well Record and Log is included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a dry wash, located approximately 24,551 feet northwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area).

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

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

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

## **SITE ASSESSMENT AND LAND ACCESS ACTIVITIES**

On September 18, 2024, Ensolum personnel visited the Site to evaluate the release extent based on information provided on the C-141 and visual observations. No samples were collected during this Site visit. The release extent was mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation is included in Appendix B.

Since the release occurred off pad, XTO submitted a Form 3160-5 (Sundry Form) to the BLM to request access to the pasture soils on November 18, 2024. XTO received an approved sundry, granting access to complete remediation, on November 25, 2024. The approved sundry is presented in Appendix C.

## **EXCAVATION SOIL SAMPLING ACTIVITIES**

Between February 4 and February 14, 2025, Ensolum personnel were at the Site to oversee excavation activities. Impacted soil was excavated from the release area as indicated by visible staining and field screening activities. Excavation activities were performed using a heavy equipment. To direct excavation activities, Ensolum personnel field screened the soil samples for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. Following removal of impacted soil, Ensolum personnel collected 5-point composite soil samples

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representing no more than 200 square feet from the sidewalls and floor of the excavation. The 5-point 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. Confirmation soil samples FS01 through FS50 were collected from the floor of the excavation at depths of 4 feet bgs. Confirmation sidewall soil samples SW01 through SW18 were collected from the sidewalls of the excavation at depths ranging from ground surface to 4 feet bgs. The excavation extent and confirmation soil sample locations are presented 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 (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following Standards Method SM4500.

The final excavation extent measured approximately 10,000 square feet. A total of approximately 1,480 cubic yards of impacted soil was removed during the excavation activities. The impacted soil will be transported and properly disposed of at the OWL Landfill in Jal, New Mexico. The excavation is in the process of being backfilled with material purchased locally and recontoured to match pre-existing site conditions. The excavation area will be reseeded with a BLM approved seed mix in the next recommended planting season.

## LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for the confirmation floor soil samples FS01 through FS50 and sidewall soil samples SW01 through SW18, collected at depths ranging from ground surface to 4 feet bgs indicated that all COC concentrations were compliant with the Closure Criteria. Additionally, the confirmation sidewall soil samples collected from ground surface to 4 feet bgs indicated all COC concentrations were compliant with the reclamation requirement and confirmed the lateral extent of the release. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

## CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the September 17, 2024, release of produced water. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated that all COC concentrations were compliant with the Site Closure Criteria. In addition, all waste-containing soil was removed from the top 4 feet of the release area. Based on the soil sample analytical results, no further remediation was required. XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions. All disturbed areas will be reseeded with a BLM approved seed mix in the next recommended planting season and a reclamation report will be submitted.

Excavation of waste-containing soil has mitigated potential impacts at this 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. As such, XTO respectfully requests closure for Incident Number nAPP2426227740.

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

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Sincerely,  
**Ensolum, LLC**

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

Tracy Hillard  
Project Engineer

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

Tacoma Morrissey  
Associate Principal

cc: Colton Brown, XTO  
Kaylan Dirkx, XTO  
Bureau of Land Management

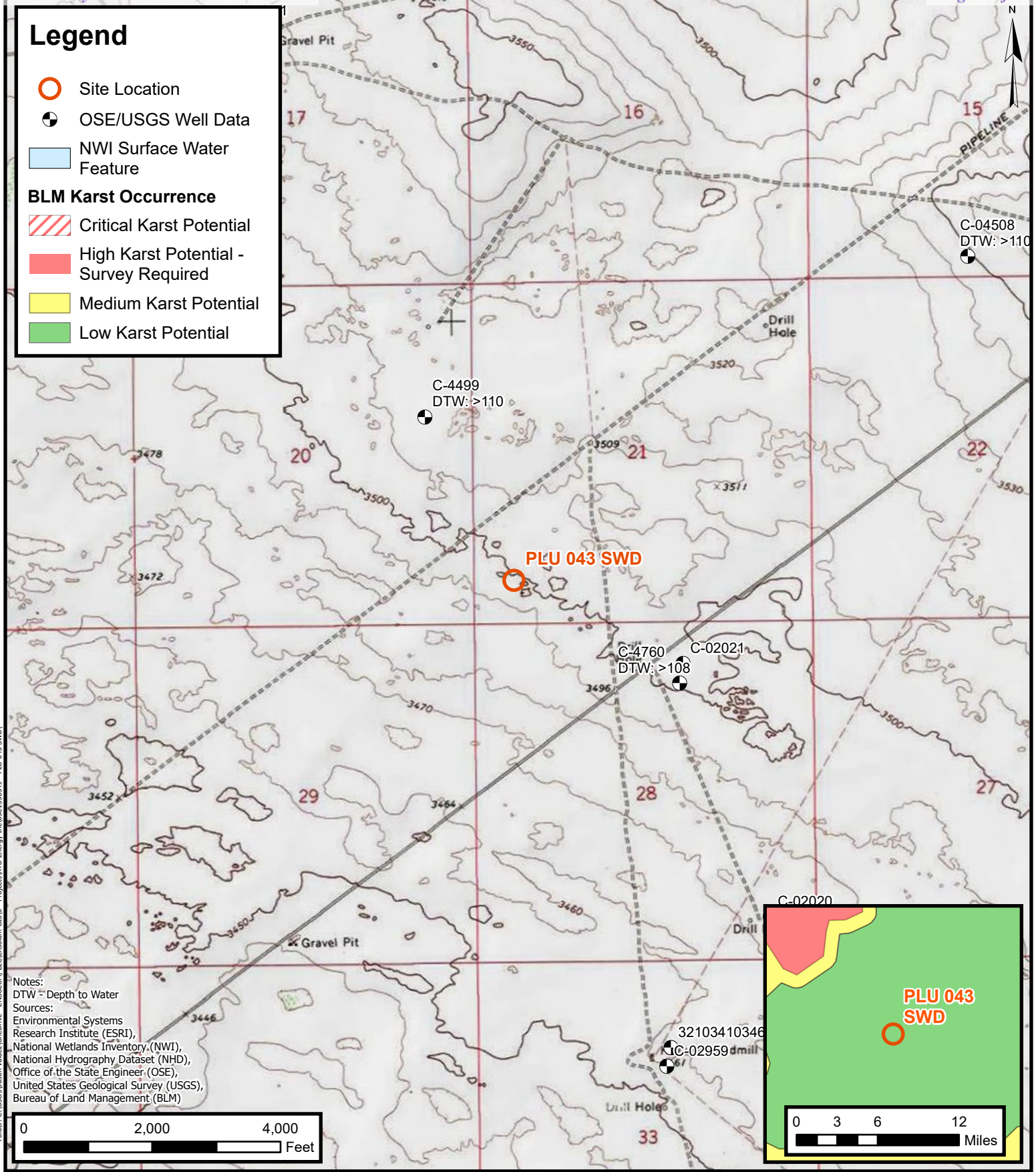
Appendices:


Figure 1	Site Receptor Map
Figure 2	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Photographic Log
Appendix C	Land Access References
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation





FIGURES





Environmental, Engineering and Hydrogeologic Consultants

## Site Receptor Map

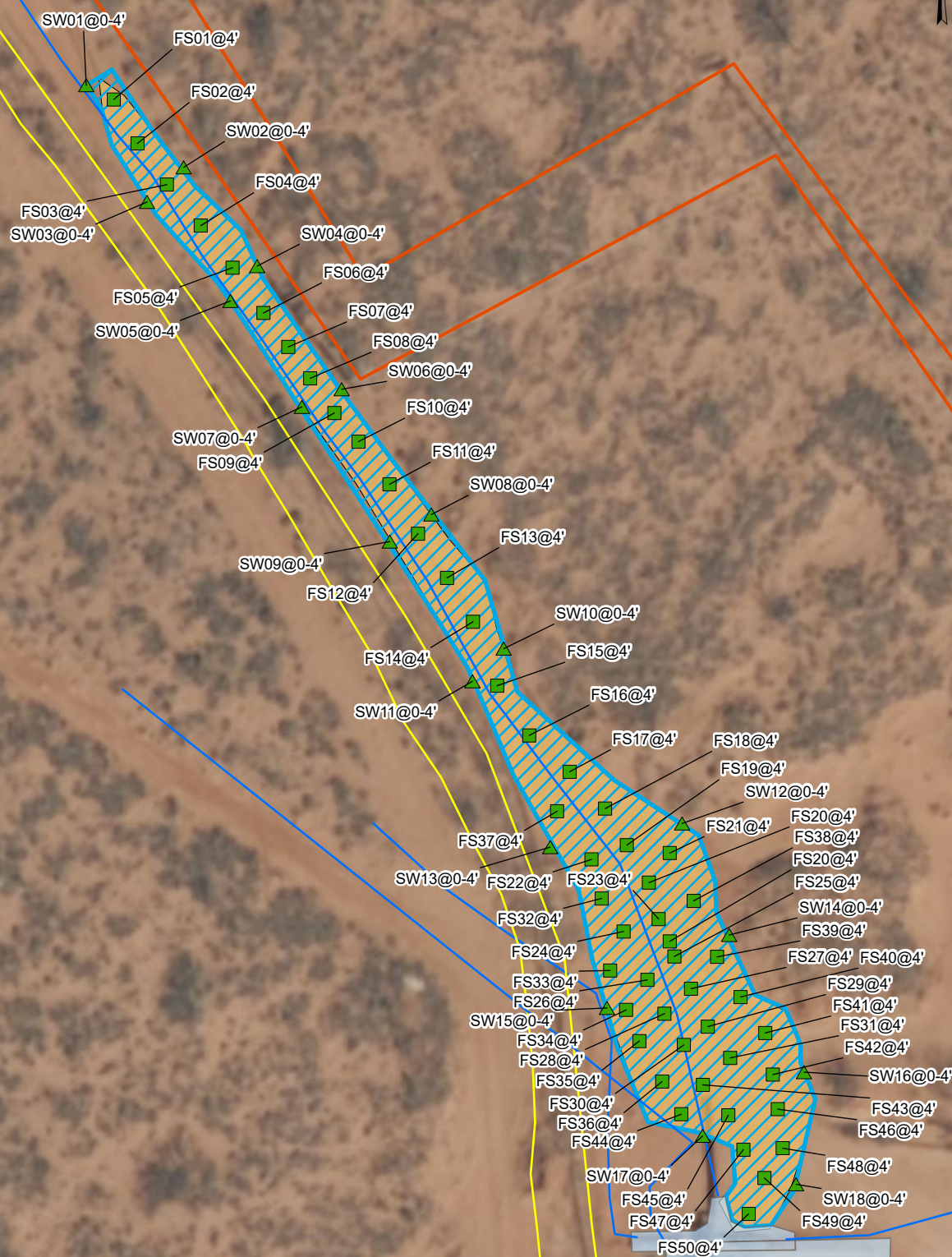
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Unit M, Section 21, T 24S, R 31E  
Eddy County, New Mexico

# FIGURE 1



**Legend**

- Excavation Floor Sample in Compliance with Closure Criteria
- ▲ Excavation Sidewall Sample in Compliance with Closure Criteria
- Electric Utility Line
- Oil and Gas Utility Line
- Water Utility Line
- Release Extent
- Production Equipment
- Excavation Extent



Notes:  
Sample ID @ Depth Below Ground Surface.

0 12.5 25 50 75 100  
Feet

Sources: Environmental Systems Research Institute (ESRI)

## Excavation Soil Sample Locations

XTO Energy Inc.

PLU 043 SWD

Incident Number: nAPP2426227740

Unit M, Section 21, T 24S, R 31E

Eddy County, New Mexico

**FIGURE**

**2**





TABLES



**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**PLU 043 SWD**  
**XTO Energy, Inc**  
**Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Excavation Soil Samples										
FS01	02/11/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,570
FS02	02/11/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,760
FS03	02/11/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,620
FS04	02/11/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,030
FS05	02/11/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,190
FS06	02/11/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	3,320
FS07	02/10/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	7,060
FS08	02/10/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	4,320
FS09	02/10/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	7,060
FS10	02/10/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	5,280
FS11	02/12/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	10,000
FS12	02/12/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	7,600
FS13	02/12/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	8,260
FS14	02/12/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	6,930
FS15	02/12/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	6,000
FS16	02/12/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,200
FS17	02/12/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	3,520
FS18	02/12/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	4,960
FS19	02/12/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	6,800
FS20	02/12/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	7,460
FS21	02/12/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	6,930
FS22	02/12/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	4,930
FS23	02/13/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	6,480
FS24	02/13/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	9,330
FS25	02/13/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	5,330
FS26	02/13/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	10,000
FS27	02/13/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	6,080
FS28	02/14/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	4,800
FS29	02/13/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	7,460
FS30	02/14/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	5,900
FS31	02/14/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	6,400



**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**PLU 043 SWD**  
**XTO Energy, Inc**  
**Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
FS32	02/14/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	4,700
FS33	02/14/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	8,400
FS34	02/14/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	7,400
FS35	02/14/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	6,100
FS36	02/14/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	3,760
FS37	02/14/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	7,040
FS38	02/14/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	8,800
FS39	02/14/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	8,260
FS40	02/14/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	3,280
FS41	02/14/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	6,930
FS42	02/14/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	7,500
FS43	02/14/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	12,800
FS44	02/14/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	9,200
FS45	02/14/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	6,800
FS46	02/14/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	5,460
FS47	02/14/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	5,600
FS48	02/14/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	6,000
FS49	02/14/2025	4	<0.050	<0.300	<10.0	58.1	<10.0	58.1	58.1	4,000
FS50	02/14/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	7,280
SW01	02/11/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
SW02	02/11/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
SW03	02/11/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SW04	02/11/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SW05	02/11/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SW06	02/10/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
SW07	02/10/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
SW08	02/12/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SW09	02/12/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SW10	02/12/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW11	02/12/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SW12	02/12/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SW13	02/12/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0



TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS  
PLU 043 SWD  
XTO Energy, Inc  
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
SW14	02/13/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	416
SW15	02/13/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	256
SW16	02/13/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
SW17	02/13/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW18	02/13/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0

## 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

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# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

[www.ose.state.nm.us](http://www.ose.state.nm.us)

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD1 (MW-1)		WELL TAG ID NO. n/a		OSE FILE NO(S). C-4499			
	WELL OWNER NAME(S) XTO Energy (Kyle Littrell)				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 6401 Holiday Hill Dr.				CITY Midland	STATE TX	ZIP 79707	
	WELL LOCATION (FROM GPS)	DEGREES 32°		MINUTES 12'	SECONDS 15.89"	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84	
		LATITUDE		LONGITUDE				
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE SE NE Sec. 20 T24S R31E								
2. DRILLING & CASING INFORMATION	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 12/30/2020		DRILLING ENDED 12/30/2020		DEPTH OF COMPLETED WELL (FT) temporary well material	BORE HOLE DEPTH (FT) 110	DEPTH WATER FIRST ENCOUNTERED (FT) n/a	
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) n/a		
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: Hollow Stem Auger							
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0	110	±8.5	Boring- HSA	--	--	--	--
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO. <b>C-4499</b>	POD NO. <b>1</b>	TRN NO. <b>182532</b>
LOCATION <b>24S.31E.20.243</b>	WELL TAG ID NO. <b>---</b>	PAGE 1 OF 2

OSE DIT JAN 27 2021 PM3:34

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
	FROM	TO				
	0	6	6	SAND, well graded, fine-to-large grain particles red-brown, dry	✗    ✓ N	
	6	8	2	SAND, poorly graded, fine grained little clay mod. plasticity, red-brown, moist	Y    ✓ N	
	8	11	3	CALICHE, mod. consolidated, some sand, medium /fine grain, white-tan, dry	Y    ✓ N	
	11	46	35	CALICHE, mod. consolidated, some sand, medium to fine grain, white-tan, dry.	Y    ✓ N	
	46	74	28	SAND, well-graded, medium grain, caliche gravel (1-4mm), light brown, dry.	Y    ✓ N	
	74	110	36	SAND, well-graded, fine/large grain, few clay, cohesive, red-brown, dry	Y    ✓ N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER - SPECIFY:					TOTAL ESTIMATED WELL YIELD (gpm):                      0.00	

5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.
	MISCELLANEOUS INFORMATION: Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface. Logs adapted from WSP on-site geologist.	
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Shane Eldridge	

6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:	
	 Jackie D. Atkins	01/15/2021
	SIGNATURE OF DRILLER / PRINT SIGNED NAME	DATE

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 06/30/2017)	
FILE NO.	C-4499	POD NO.	1
LOCATION		TRN NO.	482532
		WELL TAG ID NO.	PAGE 2 OF 2

USE DT JPN 27 2021 PM 3:34






# 2021-1-15\_C-4499\_POD1\_OSE\_Well Record and Log\_plu129-forsign

Final Audit Report

2021-01-15

Created:	2021-01-15
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAGs296c366oCiflrLCiy9WDKJlrUnq-9u

## "2021-1-15\_C-4499\_POD1\_OSE\_Well Record and Log\_plu129-forsign" History

-  Document created by Lucas Middleton (lucas@atkinseng.com)  
2021-01-15 - 8:45:00 PM GMT- IP address: 69.21.248.123
-  Document emailed to Jack Atkins (jack@atkinseng.com) for signature  
2021-01-15 - 8:45:35 PM GMT
-  Email viewed by Jack Atkins (jack@atkinseng.com)  
2021-01-15 - 9:05:13 PM GMT- IP address: 74.50.153.115
-  Document e-signed by Jack Atkins (jack@atkinseng.com)  
Signature Date: 2021-01-15 - 9:13:18 PM GMT - Time Source: server- IP address: 74.50.153.115
-  Agreement completed.  
2021-01-15 - 9:13:18 PM GMT

OSE DJJ JAN 27 2021 PM3:34



## APPENDIX B

### Photographic Log

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**Photographic Log**

XTO Energy Inc.

PLU 043 SWD

nAPP2426227740



Photograph: 1 Date: 9/18/2024  
Description: Soil staining in release footprint  
View: Northeast



Photograph: 2 Date: 9/18/2024  
Description: Soil staining in release footprint  
View: Northwest



Photograph: 3 Date: 2/4/2025  
Description: Excavation activities  
View: Northwest



Photograph: 4 Date: 2/7/2025  
Description: Excavation activities  
View: North



**Photographic Log**

XTO Energy Inc.

PLU 043 SWD

nAPP2426227740



Photograph: 5                      Date: 2/10/2025  
Description: Excavation activities  
View: North



Photograph: 6                      Date: 2/13/2025  
Description: Excavation activities  
View: Northwest



Photograph: 7                      Date: 2/14/2025  
Description: Final excavation extent  
View: North



Photograph: 8                      Date: 2/14/2025  
Description: Final excavation extent  
View: Southeast





## Appendix C

### Land Access References

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Well Name: POKER LAKE SWD	Well Location: T24S / R31E / SEC 21 / SWSW / 32.1973501 / -103.7890851	County or Parish/State: EDDY / NM
Well Number: 43	Type of Well: INJECTION - ENHANCED RECOVERY	Allottee or Tribe Name:
Lease Number: NMNM0506A	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001521700	Operator: XTO PERMIAN OPERATING LLC	

Notice of Intent

Sundry ID: 2823060

Type of Submission: Notice of Intent	Type of Action: Other
Date Sundry Submitted: 11/18/2024	Time Sundry Submitted: 01:49
Date proposed operation will begin: 11/25/2024	

**Procedure Description:** XTO Permian Operating LLC., (XTO), respectfully requests access to an off-pad area located northwest of Poker Lake Unit 043 well pad location in order to complete remediation activities related to a release (Incident Number nAPP2426227740) which occurred on September 17, 2024. The release occurred on the PLU 043 SWD facility pad at GPS 32.197528, -103.789510 and flowed northwest along a 2-track road and into the pasture area. Excavation of impacted soil is needed utilizing heavy equipment (backhoe, trackhoe, loader, and hydrovacuum truck). After successful completion of remediation efforts, the disturbed areas will be backfilled with top soil purchased locally and re-contoured to match pre-existing site conditions and re-seeded with the recommended BLM seed mixture. Please see the attached site map.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

XTO\_PLU\_043\_SWD\_Site\_Map\_20241118134734.pdf

Well Name: POKER LAKE SWD	Well Location: T24S / R31E / SEC 21 / SWSW / 32.1973501 / -103.7890851	County or Parish/State: EDDY / NM
Well Number: 43	Type of Well: INJECTION - ENHANCED RECOVERY	Allottee or Tribe Name:
Lease Number: NMNM0506A	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001521700	Operator: XTO PERMIAN OPERATING LLC	

Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: SHERRY MORROW  
Signed on: NOV 18, 2024 01:46 PM  
Name: XTO PERMIAN OPERATING LLC  
Title: Regulatory Analyst  
Street Address: 6401 HOLIDAY HILL ROAD BLDG 5  
City: MIDLAND State: TX  
Phone: (432) 218-3671  
Email address: SHERRY.MORROW@EXXONMOBIL.COM

Field

Representative Name:  
Street Address:  
City: State: Zip:  
Phone:  
Email address:

BLM Point of Contact

BLM POC Name: CRISHA A MORGAN  
BLM POC Title: Environmental Protection Specialist  
BLM POC Phone: 5752345987  
BLM POC Email Address: camorgan@blm.gov  
Disposition: Accepted  
Disposition Date: 12/06/2024  
Signature: CRISHA A. MORGAN

Form 3160-5 (June 2019)	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT	FORM APPROVED OMB No. 1004-0137 Expires: October 31, 2021
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> <i>Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.</i>		5. Lease Serial No.
		6. If Indian, Allottee or Tribe Name

<b>SUBMIT IN TRIPLICATE - Other instructions on page 2</b>		7. If Unit of CA/Agreement, Name and/or No.
1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No.
2. Name of Operator		9. API Well No.
3a. Address	3b. Phone No. (include area code)	10. Field and Pool or Exploratory Area
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)		11. Country or Parish, State

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA				
TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)		
	Title	
Signature	Date	

<b>THE SPACE FOR FEDERAL OR STATE OFFICE USE</b>		
Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

## GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

## SPECIFIC INSTRUCTIONS

*Item 4* - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

*Item 13*: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

## NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

## **Additional Information**

### **Location of Well**

0. SHL: SWSW / 660 FSL / 660 FWL / TWSP: 24S / RANGE: 31E / SECTION: 21 / LAT: 32.1973501 / LONG: -103.7890851 ( TVD: 0 feet, MD: 0 feet )



BHL: SWSW / 660 FSL / 660 FWL / TWSP: 24S / SECTION: / LAT: 0.0 / LONG: 0.0 ( TVD: 0 feet, MD: 0 feet )



# Figure 1: PLU 043 SWD

BLM Requested Area of Disturbance

## Legend

-  Release Extent
-  Requested Disturbance Area



Google Earth





## APPENDIX D

### Laboratory Analytical Reports & Chain of Custody Documentation

---



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

February 17, 2025

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: POKER LAKE UNIT 043 SWD

Enclosed are the results of analyses for samples received by the laboratory on 02/13/25 14:25.

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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/12/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 11 4' (H250880-01)**

BTX 8021B			mg/kg		Analyzed By: JH				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/14/2025	ND	1.91	95.3	2.00	0.878	
Toluene*	<0.050	0.050	02/14/2025	ND	2.04	102	2.00	0.835	
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	2.02	101	2.00	0.486	
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.99	99.9	6.00	0.347	
Total BTX	<0.300	0.300	02/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 71.5-134

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10000	16.0	02/14/2025	ND	480	120	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	02/14/2025	ND	193	96.6	200	4.74	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	182	90.9	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 94.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.3 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/12/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 12 4' (H250880-02)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/14/2025	ND	1.91	95.3	2.00	0.878		
Toluene*	<0.050	0.050	02/14/2025	ND	2.04	102	2.00	0.835		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	2.02	101	2.00	0.486		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.99	99.9	6.00	0.347		
Total BTEx	<0.300	0.300	02/14/2025	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	7600	16.0	02/14/2025	ND	480	120	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	02/14/2025	ND	193	96.6	200	4.74	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	182	90.9	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 97.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.3 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/12/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 13 4' (H250880-03)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/14/2025	ND	1.91	95.3	2.00	0.878		
Toluene*	<0.050	0.050	02/14/2025	ND	2.04	102	2.00	0.835		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	2.02	101	2.00	0.486		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.99	99.9	6.00	0.347		
Total BTEX	<0.300	0.300	02/14/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8260	16.0	02/14/2025	ND	480	120	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	02/14/2025	ND	193	96.6	200	4.74	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	182	90.9	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 98.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.9 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/12/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 14 4' (H250880-04)**

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	02/14/2025	ND	1.91	95.3	2.00	0.878		
Toluene*	<0.050	0.050	02/14/2025	ND	2.04	102	2.00	0.835		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	2.02	101	2.00	0.486		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.99	99.9	6.00	0.347		
Total BTEx	<0.300	0.300	02/14/2025	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	6930	16.0	02/14/2025	ND	480	120	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	02/14/2025	ND	193	96.6	200	4.74	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	182	90.9	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/12/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 15 4' (H250880-05)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/14/2025	ND	1.91	95.3	2.00	0.878		
Toluene*	<0.050	0.050	02/14/2025	ND	2.04	102	2.00	0.835		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	2.02	101	2.00	0.486		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.99	99.9	6.00	0.347		
Total BTEx	<0.300	0.300	02/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	6000	16.0	02/14/2025	ND	480	120	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	02/14/2025	ND	193	96.6	200	4.74	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	182	90.9	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/12/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 16 4' (H250880-06)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/14/2025	ND	1.91	95.3	2.00	0.878		
Toluene*	<0.050	0.050	02/14/2025	ND	2.04	102	2.00	0.835		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	2.02	101	2.00	0.486		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.99	99.9	6.00	0.347		
Total BTEX	<0.300	0.300	02/14/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2200	16.0	02/14/2025	ND	480	120	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	02/14/2025	ND	193	96.6	200	4.74	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	182	90.9	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/12/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 17 4' (H250880-07)**

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	02/14/2025	ND	1.91	95.3	2.00	0.878		
Toluene*	<0.050	0.050	02/14/2025	ND	2.04	102	2.00	0.835		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	2.02	101	2.00	0.486		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.99	99.9	6.00	0.347		
Total BTEx	<0.300	0.300	02/14/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3520	16.0	02/14/2025	ND	480	120	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	02/14/2025	ND	193	96.6	200	4.74	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	182	90.9	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 88.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/12/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 18 4' (H250880-08)**

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	02/14/2025	ND	1.91	95.3	2.00	0.878		
Toluene*	<0.050	0.050	02/14/2025	ND	2.04	102	2.00	0.835		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	2.02	101	2.00	0.486		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.99	99.9	6.00	0.347		
Total BTEX	<0.300	0.300	02/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4960	16.0	02/14/2025	ND	480	120	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	02/14/2025	ND	193	96.6	200	4.74	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	182	90.9	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 97.2 % 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  
TRACY HILLARD  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/12/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 19 4' (H250880-09)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/14/2025	ND	1.91	95.3	2.00	0.878		
Toluene*	<0.050	0.050	02/14/2025	ND	2.04	102	2.00	0.835		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	2.02	101	2.00	0.486		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.99	99.9	6.00	0.347		
Total BTEX	<0.300	0.300	02/14/2025	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	6800	16.0	02/14/2025	ND	480	120	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	02/14/2025	ND	193	96.6	200	4.74	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	182	90.9	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 97.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/12/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SW 08 0-4' (H250880-10)**

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	02/14/2025	ND	1.91	95.3	2.00	0.878		
Toluene*	<0.050	0.050	02/14/2025	ND	2.04	102	2.00	0.835		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	2.02	101	2.00	0.486		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.99	99.9	6.00	0.347		
Total BTEX	<0.300	0.300	02/14/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/14/2025	ND	480	120	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	02/14/2025	ND	193	96.6	200	4.74	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	182	90.9	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 91.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/12/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SW 10 0-4' (H250880-11)**

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	02/14/2025	ND	1.91	95.3	2.00	0.878		
Toluene*	<0.050	0.050	02/14/2025	ND	2.04	102	2.00	0.835		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	2.02	101	2.00	0.486		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.99	99.9	6.00	0.347		
Total BTEX	<0.300	0.300	02/14/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/14/2025	ND	480	120	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	02/14/2025	ND	193	96.6	200	4.74	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	182	90.9	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 84.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/12/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SW 09 0-4' (H250880-12)**

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	02/14/2025	ND	1.91	95.3	2.00	0.878		
Toluene*	<0.050	0.050	02/14/2025	ND	2.04	102	2.00	0.835		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	2.02	101	2.00	0.486		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.99	99.9	6.00	0.347		
Total BTEx	<0.300	0.300	02/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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	64.0	16.0	02/14/2025	ND	480	120	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	02/14/2025	ND	193	96.6	200	4.74	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	182	90.9	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 91.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.6 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/12/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SW 11 0-4' (H250880-13)**

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	02/14/2025	ND	1.91	95.3	2.00	0.878		
Toluene*	<0.050	0.050	02/14/2025	ND	2.04	102	2.00	0.835		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	2.02	101	2.00	0.486		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.99	99.9	6.00	0.347		
Total BTEX	<0.300	0.300	02/14/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	02/14/2025	ND	480	120	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	02/14/2025	ND	193	96.6	200	4.74	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	182	90.9	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 93.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/12/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SW 12 0-4' (H250880-14)**

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	02/14/2025	ND	1.91	95.3	2.00	0.878		
Toluene*	<0.050	0.050	02/14/2025	ND	2.04	102	2.00	0.835		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	2.02	101	2.00	0.486		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.99	99.9	6.00	0.347		
Total BTEX	<0.300	0.300	02/14/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	02/14/2025	ND	480	120	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	02/14/2025	ND	193	96.6	200	4.74	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	182	90.9	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 86.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/12/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SW 13 0-4' (H250880-15)**

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	02/14/2025	ND	1.91	95.3	2.00	0.878		
Toluene*	<0.050	0.050	02/14/2025	ND	2.04	102	2.00	0.835		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	2.02	101	2.00	0.486		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.99	99.9	6.00	0.347		
Total BTEx	<0.300	0.300	02/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 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	80.0	16.0	02/14/2025	ND	480	120	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	02/14/2025	ND	193	96.6	200	4.74	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	182	90.9	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 98.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/12/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 20 4' (H250880-16)**

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	02/14/2025	ND	1.91	95.3	2.00	0.878		
Toluene*	<0.050	0.050	02/14/2025	ND	2.04	102	2.00	0.835		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	2.02	101	2.00	0.486		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.99	99.9	6.00	0.347		
Total BTEx	<0.300	0.300	02/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	7460	16.0	02/14/2025	ND	480	120	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	02/14/2025	ND	193	96.6	200	4.74	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	182	90.9	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 87.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/12/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 21 4' (H250880-17)**

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	02/14/2025	ND	1.91	95.3	2.00	0.878		
Toluene*	<0.050	0.050	02/14/2025	ND	2.04	102	2.00	0.835		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	2.02	101	2.00	0.486		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.99	99.9	6.00	0.347		
Total BTEX	<0.300	0.300	02/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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	6930	16.0	02/14/2025	ND	480	120	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	02/14/2025	ND	193	96.6	200	4.74	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	182	90.9	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 94.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/12/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 22 4' (H250880-18)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/14/2025	ND	1.91	95.3	2.00	0.878		
Toluene*	<0.050	0.050	02/14/2025	ND	2.04	102	2.00	0.835		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	2.02	101	2.00	0.486		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.99	99.9	6.00	0.347		
Total BTEx	<0.300	0.300	02/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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	4930	16.0	02/14/2025	ND	480	120	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	02/14/2025	ND	193	96.6	200	4.74	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	182	90.9	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 79.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/11/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SW 01 0-4' (H250880-19)**

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	02/14/2025	ND	1.91	95.3	2.00	0.878		
Toluene*	<0.050	0.050	02/14/2025	ND	2.04	102	2.00	0.835		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	2.02	101	2.00	0.486		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.99	99.9	6.00	0.347		
Total BTEx	<0.300	0.300	02/14/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	02/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/14/2025	ND	193	96.6	200	4.74	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	182	90.9	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 93.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/11/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SW 02 0-4' (H250880-20)**

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	02/14/2025	ND	1.91	95.3	2.00	0.878		
Toluene*	<0.050	0.050	02/14/2025	ND	2.04	102	2.00	0.835		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	2.02	101	2.00	0.486		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.99	99.9	6.00	0.347		
Total BTEx	<0.300	0.300	02/14/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	02/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/14/2025	ND	193	96.6	200	4.74	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	182	90.9	200	4.05	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 88.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/11/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SW 03 0-4' (H250880-21)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/14/2025	ND	1.86	93.1	2.00	0.779		
Toluene*	<0.050	0.050	02/14/2025	ND	1.93	96.4	2.00	1.31		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	1.94	96.9	2.00	1.58		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.94	99.0	6.00	2.00		
Total BTX	<0.300	0.300	02/14/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	02/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/14/2025	ND	197	98.3	200	2.45	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	191	95.6	200	3.57	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 98.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/11/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SW 04 0-4' (H250880-22)**

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	02/14/2025	ND	1.86	93.1	2.00	0.779		
Toluene*	<0.050	0.050	02/14/2025	ND	1.93	96.4	2.00	1.31		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	1.94	96.9	2.00	1.58		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.94	99.0	6.00	2.00		
Total BTEX	<0.300	0.300	02/14/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	02/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/14/2025	ND	197	98.3	200	2.45	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	191	95.6	200	3.57	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 99.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/11/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SW 05 0-4' (H250880-23)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/14/2025	ND	1.86	93.1	2.00	0.779		
Toluene*	<0.050	0.050	02/14/2025	ND	1.93	96.4	2.00	1.31		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	1.94	96.9	2.00	1.58		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.94	99.0	6.00	2.00		
Total BTX	<0.300	0.300	02/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 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	64.0	16.0	02/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/14/2025	ND	197	98.3	200	2.45	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	191	95.6	200	3.57	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/11/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 01 4' (H250880-24)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/14/2025	ND	1.86	93.1	2.00	0.779		
Toluene*	<0.050	0.050	02/14/2025	ND	1.93	96.4	2.00	1.31		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	1.94	96.9	2.00	1.58		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.94	99.0	6.00	2.00		
Total BTEx	<0.300	0.300	02/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	1570	16.0	02/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/14/2025	ND	197	98.3	200	2.45	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	191	95.6	200	3.57	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 103 % 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  
TRACY HILLARD  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/11/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 02 4' (H250880-25)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/14/2025	ND	1.86	93.1	2.00	0.779		
Toluene*	<0.050	0.050	02/14/2025	ND	1.93	96.4	2.00	1.31		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	1.94	96.9	2.00	1.58		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.94	99.0	6.00	2.00		
Total BTEx	<0.300	0.300	02/14/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1760	16.0	02/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/14/2025	ND	197	98.3	200	2.45	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	191	95.6	200	3.57	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/11/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 03 4' (H250880-26)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/14/2025	ND	1.86	93.1	2.00	0.779		
Toluene*	<0.050	0.050	02/14/2025	ND	1.93	96.4	2.00	1.31		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	1.94	96.9	2.00	1.58		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.94	99.0	6.00	2.00		
Total BTX	<0.300	0.300	02/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 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	1620	16.0	02/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/14/2025	ND	197	98.3	200	2.45	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	191	95.6	200	3.57	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/11/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 04 4' (H250880-27)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/14/2025	ND	1.86	93.1	2.00	0.779		
Toluene*	<0.050	0.050	02/14/2025	ND	1.93	96.4	2.00	1.31		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	1.94	96.9	2.00	1.58		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.94	99.0	6.00	2.00		
Total BTEx	<0.300	0.300	02/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 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	2030	16.0	02/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/14/2025	ND	197	98.3	200	2.45	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	191	95.6	200	3.57	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 105 % 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  
TRACY HILLARD  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/11/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 05 4' (H250880-28)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/14/2025	ND	1.86	93.1	2.00	0.779		
Toluene*	<0.050	0.050	02/14/2025	ND	1.93	96.4	2.00	1.31		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	1.94	96.9	2.00	1.58		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.94	99.0	6.00	2.00		
Total BTEx	<0.300	0.300	02/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	2190	16.0	02/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/14/2025	ND	197	98.3	200	2.45	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	191	95.6	200	3.57	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/11/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 06 4' (H250880-29)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/14/2025	ND	1.86	93.1	2.00	0.779		
Toluene*	<0.050	0.050	02/14/2025	ND	1.93	96.4	2.00	1.31		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	1.94	96.9	2.00	1.58		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.94	99.0	6.00	2.00		
Total BTX	<0.300	0.300	02/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 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	3320	16.0	02/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/14/2025	ND	197	98.3	200	2.45	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	191	95.6	200	3.57	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 90.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.0 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/10/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SW 06 0-4' (H250880-30)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/14/2025	ND	1.86	93.1	2.00	0.779		
Toluene*	<0.050	0.050	02/14/2025	ND	1.93	96.4	2.00	1.31		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	1.94	96.9	2.00	1.58		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.94	99.0	6.00	2.00		
Total BTEx	<0.300	0.300	02/14/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	02/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/14/2025	ND	197	98.3	200	2.45	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	191	95.6	200	3.57	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 92.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/10/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SW 07 0-4' (H250880-31)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/14/2025	ND	1.86	93.1	2.00	0.779		
Toluene*	<0.050	0.050	02/14/2025	ND	1.93	96.4	2.00	1.31		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	1.94	96.9	2.00	1.58		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.94	99.0	6.00	2.00		
Total BTEX	<0.300	0.300	02/14/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	02/14/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/14/2025	ND	197	98.3	200	2.45	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	191	95.6	200	3.57	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 94.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/10/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 07 4' (H250880-32)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/14/2025	ND	1.86	93.1	2.00	0.779		
Toluene*	<0.050	0.050	02/14/2025	ND	1.93	96.4	2.00	1.31		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	1.94	96.9	2.00	1.58		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.94	99.0	6.00	2.00		
Total BTX	<0.300	0.300	02/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 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	7060	16.0	02/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/14/2025	ND	197	98.3	200	2.45	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	191	95.6	200	3.57	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 111 % 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  
TRACY HILLARD  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/10/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 08 4' (H250880-33)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/14/2025	ND	1.86	93.1	2.00	0.779		
Toluene*	<0.050	0.050	02/14/2025	ND	1.93	96.4	2.00	1.31		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	1.94	96.9	2.00	1.58		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.94	99.0	6.00	2.00		
Total BTEX	<0.300	0.300	02/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 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	4320	16.0	02/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/14/2025	ND	197	98.3	200	2.45	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	191	95.6	200	3.57	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/10/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 09 4' (H250880-34)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/14/2025	ND	1.86	93.1	2.00	0.779		
Toluene*	<0.050	0.050	02/14/2025	ND	1.93	96.4	2.00	1.31		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	1.94	96.9	2.00	1.58		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.94	99.0	6.00	2.00		
Total BTEX	<0.300	0.300	02/14/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	7060	16.0	02/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/14/2025	ND	197	98.3	200	2.45	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	191	95.6	200	3.57	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2025  
Reported: 02/17/2025  
Project Name: POKER LAKE UNIT 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719-103.78881

Sampling Date: 02/10/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 10 4' (H250880-35)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/14/2025	ND	1.86	93.1	2.00	0.779		
Toluene*	<0.050	0.050	02/14/2025	ND	1.93	96.4	2.00	1.31		
Ethylbenzene*	<0.050	0.050	02/14/2025	ND	1.94	96.9	2.00	1.58		
Total Xylenes*	<0.150	0.150	02/14/2025	ND	5.94	99.0	6.00	2.00		
Total BTX	<0.300	0.300	02/14/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5280	16.0	02/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/14/2025	ND	197	98.3	200	2.45	
DRO >C10-C28*	<10.0	10.0	02/14/2025	ND	191	95.6	200	3.57	
EXT DRO >C28-C36	<10.0	10.0	02/14/2025	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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---

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### Notes and Definitions

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

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

---

Celey D. Keene, Lab Director/Quality Manager



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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(5/15) 393-2326 FAX (5/15) 393-2410

BILL TO

ANALYSIS REQUEST

Company Name: Ensolum, LLC

Project Manager: Toney Hillard

Address: 3122 National Parks Hwy

City: Carlsbad

Phone #: 575 937 3906

Project #: 03C1558549

Project Name: PLU 043 SWD

Project Location: 32.197119, -103.788861

Sampler Name: Joshua Boxley

FOR LAB USE ONLY

P.O. #:

Company: XTO Energy Inc

Attn: Colton Brown

Address: 3104 E Green St

City: Carlsbad

State: NM Zip: 88220

Phone #:

Fax #:

Lab I.D.

Sample I.D.

Depth  
(feet)

(G)RAB OR (C)OMP.

# CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

Chlorides

TPH

BTEX

MATRIX

PRESERV.

SAMPLING

H2SD880	F-S11	4	C	1		X	2.12.25	1015	X	X	X								
1	F-S12					X		1025											
2	F-S13							1035											
3	F-S14							1040											
4	F-S15							1020											
5	F-S16							1025											
6	F-S17							1030											
7	F-S18							1035											
8	F-S19	4						1305											
9	SW06	0-4	C	1	N		2.12.25	1000	X	X	X								

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Reinquished By:

Date: 2-13-25

Received By:

Reinquished By:

Date:

Received By:

Time:

Time:

Delivered By: (Circle One)

Observed Temp.: °C

Sample Condition

CHECKED BY:  
(Initials)

Turnaround Time:

Standard Rush

Cool Intact

Sample Condition

Sampler - UPS - Bus - Other:

Corrected Temp.: °C

Cool Intact

Thermometer ID:

Correction Factor:

Cool Intact

Corrected Temp.: °C





2017

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

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

3 of 4

Company Name: Ensolum, LLC

**BILL TO**

**ANALYSIS REQUEST**

Project Manager: *Tracy Hillard*

P.O. #:

Address: 3122 National Parks Hwy

Company: XTO Energy Inc

City: Carlsbad

State: NM Zip: 88220

Attn: Colton Brown

Phone #: 575 937 3906

Fax #:

Address: 3104 E Green St

Project #: 03C1558549

Project Owner: XTO

City: Carlsbad

Project Name: PLU 043 SWD

State: NM Zip: 88220

Project Location: 32.19719, -103.78861

Phone #:

Sampler Name: Joshua Boxley

Fax #:

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX						PRESERV.		SAMPLING					
							GROUNDWATER						WASTEWATER		SOIL		SLUDGE		OTHER :	
<i>H250880</i>	<i>SN03</i>	<i>0-4</i>	<i>C</i>	<i>1</i>																
<i>21</i>	<i>SN04</i>	<i>0-4</i>																		
<i>22</i>	<i>SN05</i>	<i>0-4</i>																		
<i>23</i>																				
<i>24</i>																				
<i>25</i>																				
<i>26</i>																				
<i>27</i>																				
<i>28</i>																				
<i>29</i>																				

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Relinquished By: *[Signature]* Date: *2-13-25* Received By: *[Signature]* Date: *2-13-25*

Relinquished By: *[Signature]* Date: *2-13-25* Received By: *[Signature]* Date: *2-13-25*

Time: *1425* Received By: *[Signature]* Date: *2-13-25*

Delivered By: (Circle One) ☒ Observed Temp. °C *0.1* Sample Condition ☒ Intact ☐ Cool ☐ Intact ☐ Yes ☐ No ☐ Yes ☐ No

Sampler - UPS - Bus - Other: ☐ Corrected Temp. °C *0.4* ☐ No ☐ No

FORM-006 R 3.2 10/07/21

† Cardinal cannot accept verbal changes. Please email changes to [celey.keene@cardinallabsnm.com](mailto:celey.keene@cardinallabsnm.com)





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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

474

[illegible]



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

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February 19, 2025

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: PLU 043 SWD

Enclosed are the results of analyses for samples received by the laboratory on 02/17/25 12:30.

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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is 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  
TRACY HILLARD  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received: 02/17/2025  
Reported: 02/19/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/13/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SW 14 0-4 (H250932-01)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/18/2025	ND	2.05	102	2.00	4.78	
Toluene*	<0.050	0.050	02/18/2025	ND	2.13	107	2.00	4.55	
Ethylbenzene*	<0.050	0.050	02/18/2025	ND	2.10	105	2.00	4.72	
Total Xylenes*	<0.150	0.150	02/18/2025	ND	6.17	103	6.00	4.59	
Total BTX	<0.300	0.300	02/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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	416	16.0	02/18/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	182	90.9	200	4.60	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	179	89.4	200	5.41	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/17/2025  
Reported: 02/19/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/13/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SW 15 0-4 (H250932-02)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/18/2025	ND	2.05	102	2.00	4.78	
Toluene*	<0.050	0.050	02/18/2025	ND	2.13	107	2.00	4.55	
Ethylbenzene*	<0.050	0.050	02/18/2025	ND	2.10	105	2.00	4.72	
Total Xylenes*	<0.150	0.150	02/18/2025	ND	6.17	103	6.00	4.59	
Total BTX	<0.300	0.300	02/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	256	16.0	02/18/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	182	90.9	200	4.60	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	179	89.4	200	5.41	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

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

Received: 02/17/2025  
Reported: 02/19/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/13/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SW 16 0-4 (H250932-03)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/18/2025	ND	2.05	102	2.00	4.78	
Toluene*	<0.050	0.050	02/18/2025	ND	2.13	107	2.00	4.55	
Ethylbenzene*	<0.050	0.050	02/18/2025	ND	2.10	105	2.00	4.72	
Total Xylenes*	<0.150	0.150	02/18/2025	ND	6.17	103	6.00	4.59	
Total BTEx	<0.300	0.300	02/18/2025	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	02/18/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	193	96.3	200	1.56	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	193	96.5	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/17/2025  
Reported: 02/19/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/13/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SW 17 0-4 (H250932-04)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/18/2025	ND	2.05	102	2.00	4.78		
Toluene*	<0.050	0.050	02/18/2025	ND	2.13	107	2.00	4.55		
Ethylbenzene*	<0.050	0.050	02/18/2025	ND	2.10	105	2.00	4.72		
Total Xylenes*	<0.150	0.150	02/18/2025	ND	6.17	103	6.00	4.59		
Total BTX	<0.300	0.300	02/18/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	02/18/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	193	96.3	200	1.56	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	193	96.5	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/17/2025  
Reported: 02/19/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/13/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: SW 18 0-4 (H250932-05)**

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	02/18/2025	ND	2.05	102	2.00	4.78		
Toluene*	<0.050	0.050	02/18/2025	ND	2.13	107	2.00	4.55		
Ethylbenzene*	<0.050	0.050	02/18/2025	ND	2.10	105	2.00	4.72		
Total Xylenes*	<0.150	0.150	02/18/2025	ND	6.17	103	6.00	4.59		
Total BTX	<0.300	0.300	02/18/2025	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	64.0	16.0	02/18/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	193	96.3	200	1.56	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	193	96.5	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/17/2025  
Reported: 02/19/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/13/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 23 4 (H250932-06)**

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	02/17/2025	ND	1.91	95.4	2.00	3.79		
Toluene*	<0.050	0.050	02/17/2025	ND	2.00	100	2.00	5.08		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.02	101	2.00	5.30		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.17	103	6.00	4.79		
Total BTX	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 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	6480	16.0	02/18/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	193	96.3	200	1.56	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	193	96.5	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/17/2025  
Reported: 02/19/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/13/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 24 4 (H250932-07)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2025	ND	1.91	95.4	2.00	3.79		
Toluene*	<0.050	0.050	02/17/2025	ND	2.00	100	2.00	5.08		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.02	101	2.00	5.30		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.17	103	6.00	4.79		
Total BTX	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 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	9330	16.0	02/18/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	193	96.3	200	1.56	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	193	96.5	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 93.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.2 % 49.1-148

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/17/2025  
Reported: 02/19/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/13/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 25 4 (H250932-08)**

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	02/17/2025	ND	1.91	95.4	2.00	3.79		
Toluene*	<0.050	0.050	02/17/2025	ND	2.00	100	2.00	5.08		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.02	101	2.00	5.30		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.17	103	6.00	4.79		
Total BTEx	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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	5330	16.0	02/18/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	193	96.3	200	1.56	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	193	96.5	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received: 02/17/2025  
Reported: 02/19/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/13/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 26 4 (H250932-09)**

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	02/17/2025	ND	1.91	95.4	2.00	3.79		
Toluene*	<0.050	0.050	02/17/2025	ND	2.00	100	2.00	5.08		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.02	101	2.00	5.30		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.17	103	6.00	4.79		
Total BTEx	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 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	10000	16.0	02/18/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	193	96.3	200	1.56	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	193	96.5	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 92.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.4 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/17/2025  
Reported: 02/19/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/13/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 27 4 (H250932-10)**

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	02/17/2025	ND	1.91	95.4	2.00	3.79		
Toluene*	<0.050	0.050	02/17/2025	ND	2.00	100	2.00	5.08		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.02	101	2.00	5.30		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.17	103	6.00	4.79		
Total BTX	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	6080	16.0	02/18/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	193	96.3	200	1.56	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	193	96.5	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 96.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.8 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/17/2025  
Reported: 02/19/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/13/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 29 4 (H250932-11)**

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	02/17/2025	ND	1.91	95.4	2.00	3.79		
Toluene*	<0.050	0.050	02/17/2025	ND	2.00	100	2.00	5.08		
Ethylbenzene*	<0.050	0.050	02/17/2025	ND	2.02	101	2.00	5.30		
Total Xylenes*	<0.150	0.150	02/17/2025	ND	6.17	103	6.00	4.79		
Total BTEX	<0.300	0.300	02/17/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 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	7460	16.0	02/18/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2025	ND	193	96.3	200	1.56	
DRO >C10-C28*	<10.0	10.0	02/17/2025	ND	193	96.5	200	1.77	
EXT DRO >C28-C36	<10.0	10.0	02/17/2025	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

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

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

---

Celey D. Keene, Lab Director/Quality Manager



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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 2

Company Name: Ensolum, LLC				<b>BILL TO</b>				ANALYSIS REQUEST			
Project Manager: <i>Tracy H. H. H.</i>				P.O. #:							
Address: 3122 National Parks Hwy				Company: XTO Energy Inc							
City: Carlsbad				Attn: Colton Brown							
Phone #: 575 937 3906				Address: 3104 E Green St							
Fax #:				City: Carlsbad							
Project #: 03C1558549				State: NM Zip: 88220							
Project Name: PLU 043 SWD				Phone #:							
Project Location: 32.19719, -103.78861				Fax #:							
Sampler Name: Joshua Boxley											

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	Chlorides	TPH	BTEX
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
<i>HE240932</i>															
1	SW14	0-4	C	1							21.3.25	0915	X	X	X
2	SW15											0920			
3	SW16											0930			
4	SW17											0935			
5	SW18	0-4										0940			
6	FS27											0945			
7	FS24											0955			
8	FS25											1010			
9	FS26											1020			
10	FS27											1025			

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Relinquished By: <i>[Signature]</i>	Date: <i>3-17-25</i>	Received By: <i>Joshua Boxley</i>	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #:
Relinquished By: <i>[Signature]</i>	Date: <i>3-17-25</i>	Received By: <i>Joshua Boxley</i>	All Results are emailed. Please provide Email address: <i>THillard@ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com</i>
Delivered By: (Circle One)	Observed Temp. °C: <i>8.1</i>	Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Checked BY: (Initials) <i>VB</i>
Sampler - UPS - Bus - Other:	Corrected Temp. °C: <i>8.4</i>	Corrected Temp. °C: <i>8.4</i>	REMARKS: Incident: <i>KAPP2426227740</i> Cost Center: <i>1670691001</i> Turnaround Time: <i>Standard</i> Thermometer ID: <i>4400</i> Correction Factor: <i>0.3°C</i>
		Bacteria (only) Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Corrected Temp. °C: <i>8.4</i>

FORM-006 R 3.2 10/07/21

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 2

Company Name: Ensolum, LLC		<b>BILL TO</b>		ANALYSIS REQUEST	
Project Manager: <i>Tracy Hillard</i>		P.O. #:			
Address: 3122 National Parks Hwy		Company: XTO Energy Inc			
City: Carlsbad		Attn: Colton Brown			
State: NM Zip: 88220		Address: 3104 E Green St			
Phone #: 575 937 3906 Fax #:		City: Carlsbad			
Project #: 03C1558549 Project Owner: XTO		State: NM Zip: 88220			
Project Name: <i>PLU 043 SWD</i>		Phone #:			
Project Location: <i>32.19719, -103.78861</i>		Fax #:			
Sampler Name: Joshua Boxley					
FOR LAB USE ONLY					
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX
<i>HS0932</i>	<i>FS29</i>	<i>4</i>	<i>C</i>	<i>1</i>	GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER :
					ACID/BASE: ICE / COOL OTHER :
					DATE TIME
					<i>2.3.25 1655</i>
					Chlorides
					TPH
					BTEX
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Relinquished By: <i>[Signature]</i>		Date: <i>2-17-25</i>		Received By: <i>[Signature]</i>	
Relinquished By: <i>[Signature]</i>		Date: <i>2-18-25</i>		Received By: <i>[Signature]</i>	
Time: <i>1230</i>		Time:			
Delivered By: (Circle One)		Observed Temp. °C <i>2.1</i>		Sample Condition	
Sampler - UPS - Bus - Other:		Corrected Temp. °C <i>2.4</i>		Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
				CHECKED BY: (Initials) <i>[Signature]</i>	
				Tumaround Time: <i>40 min</i>	
				Thermometer ID: <i>#144</i>	
				Correction Factor: <i>-0.36</i>	
				Bacteria (only) Sample Condition	
				Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
				Observed Temp. °C	
				Corrected Temp. °C	
REMARKS: Incident: <i>KAP2426227740</i> Cost Center: <i>1670691001</i> T Hillard @ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com					
Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:					
All Results are emailed. Please provide Email address:					

FORM-006 R 3.2 10/07/21

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





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

February 24, 2025

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: PLU 043 SWD

Enclosed are the results of analyses for samples received by the laboratory on 02/20/25 14:02.

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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 28 4 (H251013-01)**

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	02/21/2025	ND	2.03	101	2.00	2.56		
Toluene*	<0.050	0.050	02/21/2025	ND	2.09	105	2.00	1.93		
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.02	101	2.00	2.38		
Total Xylenes*	<0.150	0.150	02/21/2025	ND	5.96	99.4	6.00	2.54		
Total BTEx	<0.300	0.300	02/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.6 % 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	4800	16.0	02/21/2025	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	02/21/2025	ND	206	103	200	0.394	
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	194	97.1	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 93.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 30 4 (H251013-02)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/21/2025	ND	2.03	101	2.00	2.56		
Toluene*	<0.050	0.050	02/21/2025	ND	2.09	105	2.00	1.93		
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.02	101	2.00	2.38		
Total Xylenes*	<0.150	0.150	02/21/2025	ND	5.96	99.4	6.00	2.54		
Total BTEX	<0.300	0.300	02/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.3 % 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	5900	16.0	02/21/2025	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	02/21/2025	ND	206	103	200	0.394	
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	194	97.1	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 93.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 31 4 (H251013-03)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/21/2025	ND	2.03	101	2.00	2.56		
Toluene*	<0.050	0.050	02/21/2025	ND	2.09	105	2.00	1.93		
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.02	101	2.00	2.38		
Total Xylenes*	<0.150	0.150	02/21/2025	ND	5.96	99.4	6.00	2.54		
Total BTEX	<0.300	0.300	02/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.9 % 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	6400	16.0	02/21/2025	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	02/21/2025	ND	206	103	200	0.394	
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	194	97.1	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 97.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 32 4 (H251013-04)**

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	02/21/2025	ND	2.03	101	2.00	2.56		
Toluene*	<0.050	0.050	02/21/2025	ND	2.09	105	2.00	1.93		
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.02	101	2.00	2.38		
Total Xylenes*	<0.150	0.150	02/21/2025	ND	5.96	99.4	6.00	2.54		
Total BTEX	<0.300	0.300	02/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.6 % 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	4700	16.0	02/21/2025	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	02/21/2025	ND	206	103	200	0.394	
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	194	97.1	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 89.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 33 4 (H251013-05)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/21/2025	ND	2.03	101	2.00	2.56		
Toluene*	<0.050	0.050	02/21/2025	ND	2.09	105	2.00	1.93		
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.02	101	2.00	2.38		
Total Xylenes*	<0.150	0.150	02/21/2025	ND	5.96	99.4	6.00	2.54		
Total BTEX	<0.300	0.300	02/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.2 % 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	8400	16.0	02/21/2025	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	02/21/2025	ND	206	103	200	0.394	
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	194	97.1	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 92.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 34 4 (H251013-06)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/21/2025	ND	2.03	101	2.00	2.56	
Toluene*	<0.050	0.050	02/21/2025	ND	2.09	105	2.00	1.93	
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.02	101	2.00	2.38	
Total Xylenes*	<0.150	0.150	02/21/2025	ND	5.96	99.4	6.00	2.54	
Total BTEX	<0.300	0.300	02/21/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.7 % 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	7400	16.0	02/21/2025	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	02/21/2025	ND	206	103	200	0.394	
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	194	97.1	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 99.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 35 4 (H251013-07)**

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	02/21/2025	ND	2.03	101	2.00	2.56		
Toluene*	<0.050	0.050	02/21/2025	ND	2.09	105	2.00	1.93		
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.02	101	2.00	2.38		
Total Xylenes*	<0.150	0.150	02/21/2025	ND	5.96	99.4	6.00	2.54		
Total BTEX	<0.300	0.300	02/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 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	6100	16.0	02/21/2025	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	02/21/2025	ND	206	103	200	0.394	
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	194	97.1	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 88.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 36 4 (H251013-08)**

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	02/21/2025	ND	2.03	101	2.00	2.56		
Toluene*	<0.050	0.050	02/21/2025	ND	2.09	105	2.00	1.93		
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.02	101	2.00	2.38		
Total Xylenes*	<0.150	0.150	02/21/2025	ND	5.96	99.4	6.00	2.54		
Total BTEX	<0.300	0.300	02/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.0 % 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	3760	16.0	02/21/2025	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	02/21/2025	ND	206	103	200	0.394	
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	194	97.1	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 37 4 (H251013-09)**

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	02/21/2025	ND	2.03	101	2.00	2.56		
Toluene*	<0.050	0.050	02/21/2025	ND	2.09	105	2.00	1.93		
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.02	101	2.00	2.38		
Total Xylenes*	<0.150	0.150	02/21/2025	ND	5.96	99.4	6.00	2.54		
Total BTEX	<0.300	0.300	02/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 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	7040	16.0	02/21/2025	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	02/21/2025	ND	206	103	200	0.394	
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	194	97.1	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 92.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 38 4 (H251013-10)**

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	02/21/2025	ND	2.03	101	2.00	2.56		
Toluene*	<0.050	0.050	02/21/2025	ND	2.09	105	2.00	1.93		
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.02	101	2.00	2.38		
Total Xylenes*	<0.150	0.150	02/21/2025	ND	5.96	99.4	6.00	2.54		
Total BTEx	<0.300	0.300	02/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 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	8800	16.0	02/21/2025	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	02/21/2025	ND	206	103	200	0.394	
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	194	97.1	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 99.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 39 4 (H251013-11)**

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	02/21/2025	ND	2.03	101	2.00	2.56		
Toluene*	<0.050	0.050	02/21/2025	ND	2.09	105	2.00	1.93		
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.02	101	2.00	2.38		
Total Xylenes*	<0.150	0.150	02/21/2025	ND	5.96	99.4	6.00	2.54		
Total BTEX	<0.300	0.300	02/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 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	8260	16.0	02/21/2025	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	02/21/2025	ND	206	103	200	0.394	
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	194	97.1	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 85.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 40 4 (H251013-12)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/21/2025	ND	2.03	101	2.00	2.56		
Toluene*	<0.050	0.050	02/21/2025	ND	2.09	105	2.00	1.93		
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.02	101	2.00	2.38		
Total Xylenes*	<0.150	0.150	02/21/2025	ND	5.96	99.4	6.00	2.54		
Total BTX	<0.300	0.300	02/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 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	3280	16.0	02/21/2025	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	02/21/2025	ND	211	106	200	1.43	
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	203	102	200	3.91	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 99.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 41 4 (H251013-13)**

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	02/21/2025	ND	2.05	102	2.00	1.39		
Toluene*	<0.050	0.050	02/21/2025	ND	2.21	111	2.00	0.446		
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.26	113	2.00	0.0407		
Total Xylenes*	<0.150	0.150	02/21/2025	ND	6.80	113	6.00	0.538		
Total BTEx	<0.300	0.300	02/21/2025	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	6930	16.0	02/21/2025	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	02/21/2025	ND	211	106	200	1.43	
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	203	102	200	3.91	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 42 4 (H251013-14)**

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	02/21/2025	ND	2.05	102	2.00	1.39		
Toluene*	<0.050	0.050	02/21/2025	ND	2.21	111	2.00	0.446		
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.26	113	2.00	0.0407		
Total Xylenes*	<0.150	0.150	02/21/2025	ND	6.80	113	6.00	0.538		
Total BTEx	<0.300	0.300	02/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	7500	16.0	02/21/2025	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	02/21/2025	ND	211	106	200	1.43	
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	203	102	200	3.91	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 43 4 (H251013-15)**

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	02/21/2025	ND	2.05	102	2.00	1.39		
Toluene*	<0.050	0.050	02/21/2025	ND	2.21	111	2.00	0.446		
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.26	113	2.00	0.0407		
Total Xylenes*	<0.150	0.150	02/21/2025	ND	6.80	113	6.00	0.538		
Total BTEX	<0.300	0.300	02/21/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	12800	16.0	02/21/2025	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	02/21/2025	ND	211	106	200	1.43	
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	203	102	200	3.91	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 44 4 (H251013-16)**

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	02/21/2025	ND	2.05	102	2.00	1.39		
Toluene*	<0.050	0.050	02/21/2025	ND	2.21	111	2.00	0.446		
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.26	113	2.00	0.0407		
Total Xylenes*	<0.150	0.150	02/21/2025	ND	6.80	113	6.00	0.538		
Total BTEX	<0.300	0.300	02/21/2025	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	9200	16.0	02/21/2025	ND	432	108	400	0.00	QM-07	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	218	109	200	0.994	
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	215	108	200	6.03	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 99.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 45 4 (H251013-17)**

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	02/21/2025	ND	2.05	102	2.00	1.39		
Toluene*	<0.050	0.050	02/21/2025	ND	2.21	111	2.00	0.446		
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.26	113	2.00	0.0407		
Total Xylenes*	<0.150	0.150	02/21/2025	ND	6.80	113	6.00	0.538		
Total BTEx	<0.300	0.300	02/21/2025	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	6800	16.0	02/21/2025	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	02/21/2025	ND	218	109	200	0.994	
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	215	108	200	6.03	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 95.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 46 4 (H251013-18)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/21/2025	ND	2.05	102	2.00	1.39		
Toluene*	<0.050	0.050	02/21/2025	ND	2.21	111	2.00	0.446		
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.26	113	2.00	0.0407		
Total Xylenes*	<0.150	0.150	02/21/2025	ND	6.80	113	6.00	0.538		
Total BTEx	<0.300	0.300	02/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	5460	16.0	02/21/2025	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	02/21/2025	ND	218	109	200	0.994	
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	215	108	200	6.03	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 47 4 (H251013-19)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/21/2025	ND	2.05	102	2.00	1.39		
Toluene*	<0.050	0.050	02/21/2025	ND	2.21	111	2.00	0.446		
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.26	113	2.00	0.0407		
Total Xylenes*	<0.150	0.150	02/21/2025	ND	6.80	113	6.00	0.538		
Total BTX	<0.300	0.300	02/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	5600	16.0	02/21/2025	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	02/21/2025	ND	218	109	200	0.994	
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	215	108	200	6.03	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 48 4 (H251013-20)**

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	02/21/2025	ND	2.05	102	2.00	1.39		
Toluene*	<0.050	0.050	02/21/2025	ND	2.21	111	2.00	0.446		
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.26	113	2.00	0.0407		
Total Xylenes*	<0.150	0.150	02/21/2025	ND	6.80	113	6.00	0.538		
Total BTEx	<0.300	0.300	02/21/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 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	6000	16.0	02/21/2025	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	02/21/2025	ND	198	98.8	200	5.95	
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	193	96.4	200	7.73	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 95.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 49 4 (H251013-21)**

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	02/21/2025	ND	2.05	102	2.00	1.39		
Toluene*	<0.050	0.050	02/21/2025	ND	2.21	111	2.00	0.446		
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.26	113	2.00	0.0407		
Total Xylenes*	<0.150	0.150	02/21/2025	ND	6.80	113	6.00	0.538		
Total BTEX	<0.300	0.300	02/21/2025	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	4000	16.0	02/21/2025	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	02/21/2025	ND	198	98.8	200	5.95	
DRO >C10-C28*	58.1	10.0	02/21/2025	ND	193	96.4	200	7.73	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 90.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.6 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/20/2025  
Reported: 02/24/2025  
Project Name: PLU 043 SWD  
Project Number: 03C1558549  
Project Location: XTO 32.19719, -103.78881

Sampling Date: 02/14/2025  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: FS 50 4 (H251013-22)**

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	02/21/2025	ND	2.05	102	2.00	1.39		
Toluene*	<0.050	0.050	02/21/2025	ND	2.21	111	2.00	0.446		
Ethylbenzene*	<0.050	0.050	02/21/2025	ND	2.26	113	2.00	0.0407		
Total Xylenes*	<0.150	0.150	02/21/2025	ND	6.80	113	6.00	0.538		
Total BTEX	<0.300	0.300	02/21/2025	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	7280	16.0	02/21/2025	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	02/21/2025	ND	198	98.8	200	5.95	
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	193	96.4	200	7.73	
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND					

Surrogate: 1-Chlorooctane 92.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.3 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

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

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

Caley 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: Tracy Hillard

Address: 3122 National Parks Hwy

City: Carlsbad

State: NM Zip: 88220

Phone #: 575 937 3906

Fax #:

Project #: 03C1554 549

Project Owner: XTO

Project Name: PLV 043 SWD

Project Location: 32.19719, -103.74681

Sampler Name: Joshua Boxley

FOR LAB USE ONLY

## BILL TO

P.O. #:

Company: XTO Energy Inc

Attn: Colton Brown

Address: 3104 E Green St

City: Carlsbad

State: NM Zip: 88220

Phone #:

Fax #:

## ANALYSIS REQUEST

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	Chlorides	TPH	BTEX	
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:						ICE / COOL
HE51013	FS228	4	C	1									2:14:25	11:10			
	FS330													11:15			
	FS331													09:20			
	FS332													09:40			
	FS333													09:45			
	FS334													09:50			
	FS335													09:35			
	FS336													09:36			
	FS337													09:43			
	FS338	4	C	1									2:14:25	09:46			

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Relinquished By:

Date: 3-20-25

Received By:

Relinquished By:

Date: 1400

Received By:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

Observed Temp. °C: 18.2

Corrected Temp. °C: 15.1

Sample Condition

Intact ☒ Yes ☐ No

CHECKED BY: (Initials)

Turnaround Time: 146W

Thermometer ID: #148

Correction Factor: +0.3°C

Bacteria (only) Sample Condition

Cool Intact ☒ Yes ☐ No

Observed Temp. °C

Corrected Temp. °C

REMARKS: APO2426227740

Cost Center: 1670691001

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

All Results are emailed. Please provide Email address:

THillard@ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com

Incident: 1670691001

Cost Center: 1670691001

Turnaround Time: 146W

Thermometer ID: #148

Correction Factor: +0.3°C

Bacteria (only) Sample Condition

Cool Intact ☒ Yes ☐ No

Observed Temp. °C

Corrected Temp. °C

REMARKS: APO2426227740

Cost Center: 1670691001

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

All Results are emailed. Please provide Email address:

THillard@ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com

Incident: 1670691001

Cost Center: 1670691001

Turnaround Time: 146W

Thermometer ID: #148

Correction Factor: +0.3°C

Bacteria (only) Sample Condition

Cool Intact ☒ Yes ☐ No

Observed Temp. °C

Corrected Temp. °C

REMARKS: APO2426227740

Cost Center: 1670691001

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

All Results are emailed. Please provide Email address:

THillard@ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com

Incident: 1670691001

Cost Center: 1670691001

Turnaround Time: 146W

Thermometer ID: #148

Correction Factor: +0.3°C

Bacteria (only) Sample Condition

Cool Intact ☒ Yes ☐ No

Observed Temp. °C

Corrected Temp. °C

REMARKS: APO2426227740

Cost Center: 1670691001

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

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THillard@ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com

Incident: 1670691001

Cost Center: 1670691001

Turnaround Time: 146W

Thermometer ID: #148

Correction Factor: +0.3°C

Bacteria (only) Sample Condition

Cool Intact ☒ Yes ☐ No

Observed Temp. °C

Corrected Temp. °C

REMARKS: APO2426227740

Cost Center: 1670691001

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

All Results are emailed. Please provide Email address:

THillard@ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com

Incident: 1670691001

Cost Center: 1670691001

Turnaround Time: 146W

Thermometer ID: #148

Correction Factor: +0.3°C

Bacteria (only) Sample Condition

Cool Intact ☒ Yes ☐ No

Observed Temp. °C

Corrected Temp. °C

REMARKS: APO2426227740

Cost Center: 1670691001

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

All Results are emailed. Please provide Email address:

THillard@ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com

Incident: 1670691001

Cost Center: 1670691001

Turnaround Time: 146W

Thermometer ID: #148

Correction Factor: +0.3°C

Bacteria (only) Sample Condition

Cool Intact ☒ Yes ☐ No

Observed Temp. °C

Corrected Temp. °C

REMARKS: APO2426227740

Cost Center: 1670691001

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

All Results are emailed. Please provide Email address:

THillard@ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com

Incident: 1670691001

Cost Center: 1670691001

Turnaround Time: 146W

Thermometer ID: #148

Correction Factor: +0.3°C

Bacteria (only) Sample Condition

Cool Intact ☒ Yes ☐ No

Observed Temp. °C

Corrected Temp. °C

REMARKS: APO2426227740

Cost Center: 1670691001

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

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THillard@ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com

Incident: 1670691001

Cost Center: 1670691001

Turnaround Time: 146W

Thermometer ID: #148

Correction Factor: +0.3°C

Bacteria (only) Sample Condition

Cool Intact ☒ Yes ☐ No

Observed Temp. °C

Corrected Temp. °C

REMARKS: APO2426227740

Cost Center: 1670691001

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

All Results are emailed. Please provide Email address:

THillard@ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com

Incident: 1670691001

Cost Center: 1670691001

Turnaround Time: 146W

Thermometer ID: #148

Correction Factor: +0.3°C

Bacteria (only) Sample Condition

Cool Intact ☒ Yes ☐ No

Observed Temp. °C

Corrected Temp. °C

REMARKS: APO2426227740

Cost Center: 1670691001

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

All Results are emailed. Please provide Email address:

THillard@ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com

Incident: 1670691001

Cost Center: 1670691001

Turnaround Time: 146W

Thermometer ID: #148

Correction Factor: +0.3°C

Bacteria (only) Sample Condition

Cool Intact ☒ Yes ☐ No

Observed Temp. °C

Corrected Temp. °C

REMARKS: APO2426227740

Cost Center: 1670691001

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

All Results are emailed. Please provide Email address:

THillard@ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com

Incident: 1670691001

Cost Center: 1670691001

Turnaround Time: 146W

Thermometer ID: #148

Correction Factor: +0.3°C

Bacteria (only) Sample Condition

Cool Intact ☒ Yes ☐ No

Observed Temp. °C

Corrected Temp. °C

REMARKS: APO2426227740

Cost Center: 1670691001

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

All Results are emailed. Please provide Email address:

THillard@ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com





## 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: Tracy Hillard

Address: 3122 National Parks Hwy

City: Carlsbad

Phone #: 575 937 3906

Project #: 03C1558 549

Project Name: PLV 043 SWD

Project Location: 32.19719, -103.76681

Sample Name: Joshua Boxley

FOR LAB USE ONLY

## BILL TO

P.O. #:

Company: XTO Energy Inc

Attn: Colton Brown

Address: 3104 E Green St

City: Carlsbad

State: NM

Zip: 88220

Phone #:

Fax #:

## ANALYSIS REQUEST

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	Chlorides	TPH	BTEX
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
HS1013	FS 39	4	C	1												
12	FS 40	1	C	1												
13	FS 41	1	C	1												
14	FS 42	1	C	1												
15	FS 43	1	C	1												
16	FS 44	1	C	1												
17	FS 45	1	C	1												
18	FS 46	1	C	1												
19	FS 47	1	C	1												
20	FS 48	1	C	1												

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

All Results are emailed. Please provide Email address:

REMARKS: Incident: 1670691001

Cost Center: 1670691001

Turnaround Time: 146w

Thermometer ID: #146

Correction Factor: +0.36

Bacteria (only) ☒ Bacteriophage ☐

Sample Condition ☒ Observed Temp. °C

Corrected Temp. °C

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

FORM-006 R 3.2 10/07/21

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





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: Tracy Hillard

Address: 3122 National Parks Hwy

City: Carlsbad

Phone #: 575 937 3906 State: NM Zip: 88220

Project #: 03C1556 549 Project Owner: XTO

Project Name: PLV 043 SWD

Project Location: 32.19719, -103.76681

Sampler Name: Joshua Boxley

BILL TO

ANALYSIS REQUEST

P.O. #:

Company: XTO Energy Inc

Attn: Colton Brown

Address: 3104 E Green St

City: Carlsbad

State: NM Zip: 88220

Phone #:

Fax #:

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

Depth (feet)

(G)RAB OR (C)OMP.

# CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

Chlorides

TPH

BTEX

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Relinquished By:

Date: 2-20-25

Received By:

Verbal Result: ☐ Yes ☒ No

Add'l Phone #:

All Results are emailed. Please provide Email address:

Relinquished By:

Date: 1402

Received By:

Verbal Result: ☐ Yes ☒ No

Add'l Phone #:

All Results are emailed. Please provide Email address:

Delivered By: (Circle One)

Observed Temp. °C

Corrected Temp. °C

Sample Condition

CHECKED BY: (Initials)

Turnaround Time:

Thermometer ID:

Correction Factor:

Bacteria (only)

Cool Intact

Observed Temp. °C

Corrected Temp. °C

Sampler - UPS - Bus - Other:

FORM-006 R.3.2 10/07/21

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

General Information  
Phone: (505) 629-6116

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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 443196

**QUESTIONS**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 443196
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

Prerequisites	
Incident ID (n#)	nAPP2426227740
Incident Name	NAPP2426227740 PLU 043 SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received

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

Site Name	PLU 043 SWD
Date Release Discovered	09/17/2024
Surface Owner	Federal

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

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

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

Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Corrosion   Other (Specify)   Produced Water   Released: 1,029 BBL   Recovered: 790 BBL   Lost: 239 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)	Leak developed on a riser

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QUESTIONS, Page 2

Action 443196

**QUESTIONS (continued)**

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**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
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: 03/17/2025
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QUESTIONS, Page 3

Action 443196

**QUESTIONS (continued)**

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

**QUESTIONS**

<b>Site Characterization</b>	
<i>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.</i>	
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	OCD Imaging Records Lookup
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between ½ and 1 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

<b>Remediation Plan</b>	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
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
<b>Soil Contamination Sampling:</b> (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	12800
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	58.1
GRO+DRO (EPA SW-846 Method 8015M)	58.1
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
<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>	
On what estimated date will the remediation commence	09/18/2024
On what date will (or did) the final sampling or liner inspection occur	02/14/2025
On what date will (or was) the remediation complete(d)	02/14/2025
What is the estimated surface area (in square feet) that will be reclaimed	10000
What is the estimated volume (in cubic yards) that will be reclaimed	1480
What is the estimated surface area (in square feet) that will be remediated	10000
What is the estimated volume (in cubic yards) that will be remediated	1480
<i>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.</i>	
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 4

Action 443196

**QUESTIONS (continued)**

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	Action Type:  [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Remediation Plan (continued)</b>	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
<b>This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:</b>	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	OWL LANDFILL JAL [fJEG1635837366]
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Colton Brown Title: Environmental Advisor Email: colton.s.brown@exxonmobil.com Date: 03/17/2025
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	



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Action 443196

**QUESTIONS (continued)**

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

**QUESTIONS**

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

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Action 443196

**QUESTIONS (continued)**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 443196
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

Sampling Event Information	
Last sampling notification (C-141N) recorded	431463
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	02/18/2025
What was the (estimated) number of samples that were to be gathered	60
What was the sampling surface area in square feet	12000

**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	10000
What was the total volume (cubic yards) remediated	1480
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	10000
What was the total volume (in cubic yards) reclaimed	1480
Summarize any additional remediation activities not included by answers (above)	"Site assessment and excavation activities were conducted at the Site to address the September 17, 2024, release of produced water. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated that all COC concentrations were compliant with the Site Closure Criteria. In addition, all waste-containing soil was removed from the top 4 feet of the release area. Based on the soil sample analytical results, no further remediation was required. XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions. All disturbed areas will be reseeded with a BLM approved seed mix in the next recommended planting season and a reclamation report will be submitted. Excavation of waste-containing soil has mitigated potential impacts at this 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. As such, XTO respectfully requests closure for Incident Number nAPP2426227740."

*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: 03/17/2025
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Action 443196

QUESTIONS (continued)

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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 443196

CONDITIONS

Operator:  XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:  5380
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CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your Remediation Closure Report for Incident #NAPP2426227740 PLU 043 SWD, thank you. This Remediation Closure Report is approved.	3/21/2025