



March 27, 2025

**New Mexico Oil Conservation Division**

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

**Re: Closure Request  
PLU 342  
Incident Number nAPP2407438506  
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared the following *Closure Request* to document assessment, excavation, and soil sampling activities completed to date at the PLU 342 (Site). The purpose of the assessment and excavation activities was to assess the presence or absence of impacts to soil following a release of produced water onto a lease road and adjacent right-of-way (ROW). Based on field observations, field screening activities, and soil sample laboratory analytical results, XTO is submitting this *Closure Request* describing assessment, excavation, and soil sampling activities that have occurred and requesting no further action for Incident Number nAPP2407438506.

**SITE DESCRIPTION AND RELEASE SUMMARY**

The Site is located in Unit H, Section 22, Township 24 South, Range 30 East, in Eddy County, New Mexico (32.204208°, -103.862151°) and is associated with oil and gas exploration and production operations on Federal land managed by the Bureau of Land Management (BLM).

On February 27, 2024, failure of a 4-inch water transfer polyline resulted in the release of 24 barrels (bbls) of produced water onto the lease road and adjacent ROW. A vacuum truck was dispatched to the Site and recovered 1 bbl of the released fluids. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) via Notification of Release (NOR) and submitted an Initial C-141 Application (C-141) on March 14, 2024. The release was assigned Incident Number nAPP2407438506.

In August 2024, XTO submitted an extension request for a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC for several locations and Incident numbers. XTO noted that the releases all occurred between February and March of this year and attendant documentation was overdue. The releases occurred during a high turnover period of personnel, transitioning staff, and a large company-wide data migration that collectively disturbed incident tracking efforts for remediation. In our efforts to correct the issue, XTO submitted the extension request and assigned the release to be remediated. NMOCD approved the extension request for one of the Incident Numbers, but all others were denied for the following reason:

*An extension request needs to be requested before the Remediation Closure Report Due Date Deadline. All of these incidents are at least 60 days out of compliance. The extension requests are denied. Please include this e-mail correspondence in the remediation and/or closure reports.*

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All NMOCD correspondence is included in Appendix A. Remediation activities began immediately following the notification to the NMOCD.

## SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented below. 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 January 16, 2025, a borehole (C-04911) was advanced to a depth of 105 feet below ground surface (bgs) utilizing hollow stem auger drilling method. The borehole was located approximately 0.38 miles northwest of the Site. A field geologist logged and described soils continuously. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 100 feet bgs. The borehole was properly abandoned using hydrated bentonite chips. All well records used to determine depth to groundwater are attached in Appendix B.

The closest continuously flowing or significant watercourse to the Site, shown on the NMOCD Oil and Gas Map, is dry wash located approximately 305 feet west of the Site. During site assessment activities, Ensolum personnel confirmed that the watercourse is discontinuous and doesn't qualify as a significant watercourse. The next nearest significant watercourse is a drywash and is located 4,042 feet north of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area).

Based on the results of the Site Characterization and the depth to groundwater investigation mentioned above, 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 the pasture area that was impacted by the release, per 19.15.29.13.D (1) NMAC for the top 4 feet of areas that will be reclaimed following remediation.

## SITE ASSESSMENT AND DELINEATION ACTIVITIES

On August 20, 2024, Ensolum personnel conducted a Site visit to evaluate the release extent based on information provided in the C-141 and visual observations. Ensolum personnel collected eight delineation soil samples (SS01 through SS08) around the release extent from a depth of 0.5 feet bgs to assess the lateral extent of impacted soil. The release extent and soil sample locations were mapped

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utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. Photographic documentation was completed during the Site visits and a photographic log is included in Appendix C.

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 constituents of concern (COC): 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 Standard Method SM4500.

Based on visual observations and field screening results, additional delineation within the release extent was warranted. As such, Ensolum personnel returned to the Site on October 24, 2024 and advanced boreholes BH01 through BH05 via hand auger within the release extent. The boreholes were advanced to a maximum depth of 1 foot bgs where hand auger refusal occurred due to encountering a competent formation. Discrete soil samples were collected from each pothole at depths ranging from 0.5 feet to 1-foot bgs. Soil from the boreholes were field screened for VOCs and chloride. Field screening results and observations were logged on lithologic/soil sampling logs, which are included in Appendix C. In addition to the borings, Ensolum personnel collected delineation soil samples (SS09 through SS11) from a depth of 0.5 feet bgs within the release extent. The soil samples were handled and analyzed as described above and submitted to Cardinal in Hobbs, New Mexico. The soil sample locations are depicted on Figure 2.

Following approved land access from the BLM, Ensolum personnel returned to the Site on November 5, 2024 to oversee further delineation via core drill. The core drill was utilized to further delineate each borehole to terminal depths ranging from 4 feet bgs to 6 feet bgs. Soil from the boreholes was field screened for VOCs and chloride, and results and observations were logged on a lithologic/soil sampling log, which are included in Appendix D. All soil samples were handled and analyzed as described above and submitted to Cardinal in Hobbs, New Mexico.

Laboratory analytical results for all delineation soil samples, with the exception of SS10, indicated all COCs were in compliance with Site Closure Criteria and reclamation requirements. Laboratory analytical results for delineation soil sample SS10 indicated TPH concentrations exceeded the reclamation requirement.

## **CONFIRMATION SOIL SAMPLING AND EXCAVATION ACTIVITIES**

Between December 19 through December 20, 2024, confirmation soil samples were collected from within the release area. Ensolum personnel collected 5-point composite soil samples representing no more than 200 square feet from the release extent. 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. Samples CS01 through CS42 were collected from an approximate depth of 0.5 feet bgs to assess the extent of the waste-containing soil indentified during delineation activities.

Laboratory analytical results for composite soil samples CS10, CS16, CS17, CS19, CS26 and CS27 indicated the concentrations of TPH exceeded the reclamation requirement. Laboratory analytical results for all other composite soil samples indicated all COCs were in compliance with Site Closure Criteria and reclamation requirement.

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Between January 24 and January 29, 2025, Ensolum personnel returned to Site to oversee excavation activities to remove the identified waste-containing soil. Excavation activities were completed utilizing a hydrovaccum truck, trackhoe, and transport vehicle. The excavation occurred on the lease road and adjacent ROW near production pipelines. Following removal of waste-containing soil, Ensolum personnel collected 5-point composite soil samples representing no more than 200 square feet from the sidewalls and floor of the excavations. Confirmation soil sample FS01 was collected from the floor of the excavation at a depth of 7 feet bgs. Confirmation soil samples FS02 through FS04 were collected from the floor of the excavations at a depth of 1.5 bgs. Confirmation sidewall samples SW01 and SW05 were collected from the sidewalls of the deepest excavation extent at depths ranging from ground surface to 4 feet bgs and 4 feet bgs to 7 feet bgs, respectively. Confirmation sidewall soil samples SW02 through SW04 were collected from the sidewalls of the excavations at depths ranging from ground surface to 4 feet bgs. The confirmation soil samples were collected, handled, and analyzed following the same procedures as described above.

In addition, a surface scrape of less than 0.5 feet bgs was completed in the area around confirmation samples CS16 and CS19. Two 5-point composite soil sample were collected from a depth of 0.5 feet bgs. The soil samples were collected, field screened, and analyzed following the same procedures described above.

The final excavation extents, in total measured approximately 823 square feet. A total of approximately 80 cubic yards of waste-containing soil was removed during the excavation activities. The waste-containing soil was transported and properly disposed of at R360 Halfway Disposal in Hobbs, New Mexico. Copies of the disposal manifests are included in Appendix E. XTO has backfilled the excavation with material purchased locally and recontoured the Site to match pre-existing site conditions.

## LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for all final confirmation soil samples, collected from 0.5 feet bgs, indicated all COCs were in compliance with Site Closure Criteria. Laboratory analytical results for all excavation soil samples, FS01 through FS04 and SW01 through SW05, indicated all COC concentrations were compliant with the Closure Criteria and reclamation requirement. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included in Appendix F.

## CLOSURE REQUEST

Site assessment, delineation, and excavation activities were conducted at the Site to address the February 27, 2024, release of produced water. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, and confirmation soil samples, collected from the surface of the release extent, indicated that all COC concentrations were compliant with the Closure Criteria and reclamation requirement. Based on the soil sample analytical results, no further remediation is required. The disturbed ROW will be re-seeded with an approved BLM seed mixture.

Excavation of impacted soil has mitigated 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 nAPP2407438506.

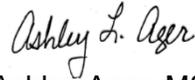
If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or [tmorrissey@ensolum.com](mailto:tmorrissey@ensolum.com).

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Sincerely,  
**Ensolum, LLC**



Sherelle Brooks  
Staff Scientist



Ashley Ager, MS, PG  
Principal, Geologist

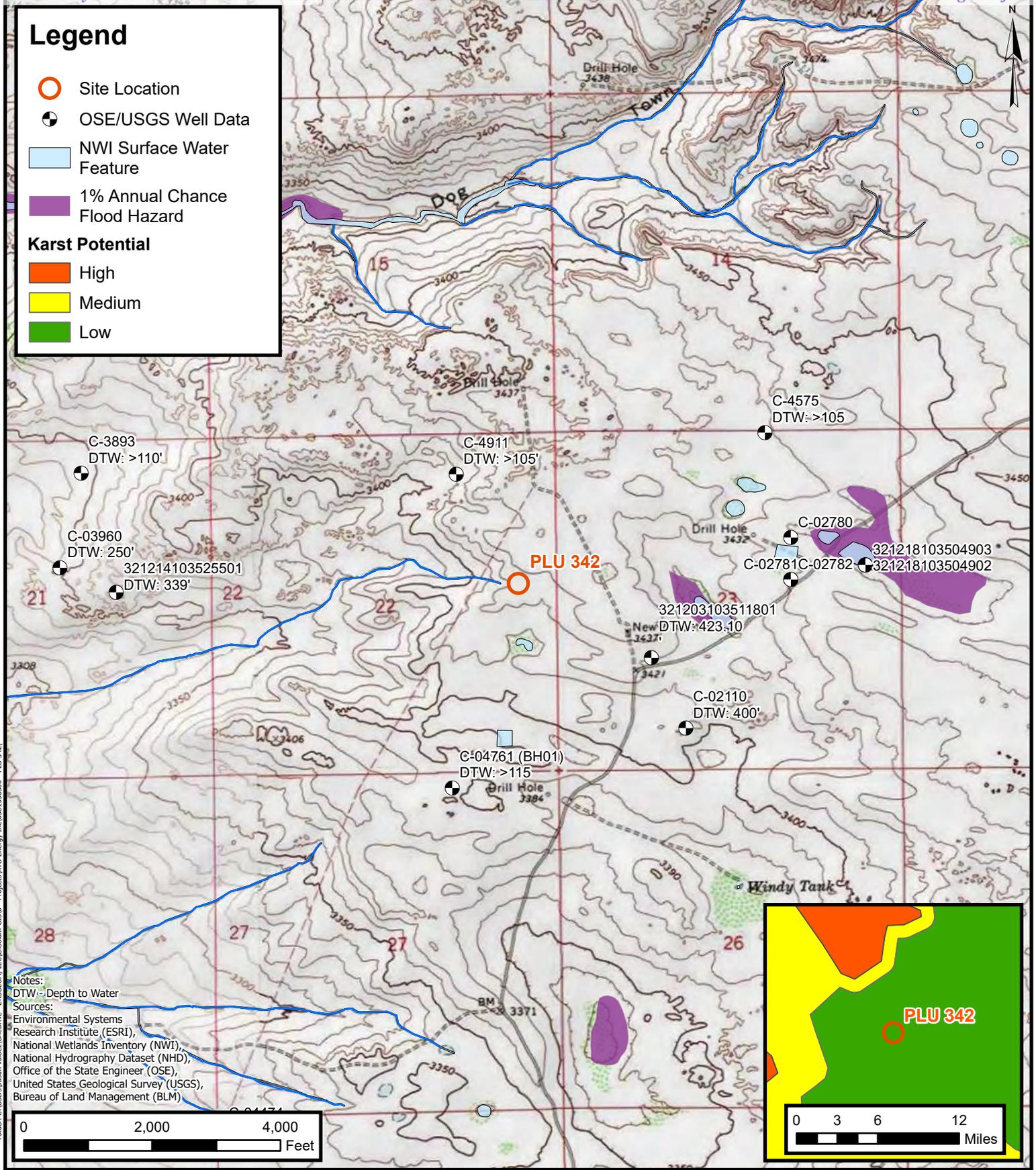
cc: Colton Brown, XTO  
Kaylan Dirkx, XTO  
BLM

Appendices:

Figure 1 Site Receptor Map  
Figure 2 Delineation Soil Sample Locations  
Figure 3 Confirmation Soil Sample Locations  
Table 1 Soil Sample Analytical Results  
Appendix A NMOCD Correspondence  
Appendix B Referenced Well Records  
Appendix C Photographic Log  
Appendix D Lithologic / Soil Sampling Logs  
Appendix E Disposal Manifests  
Appendix F Laboratory Analytical Reports & Chain-of-Custody Documentation



FIGURES



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Environmental, Engineering and Hydrogeologic Consultants

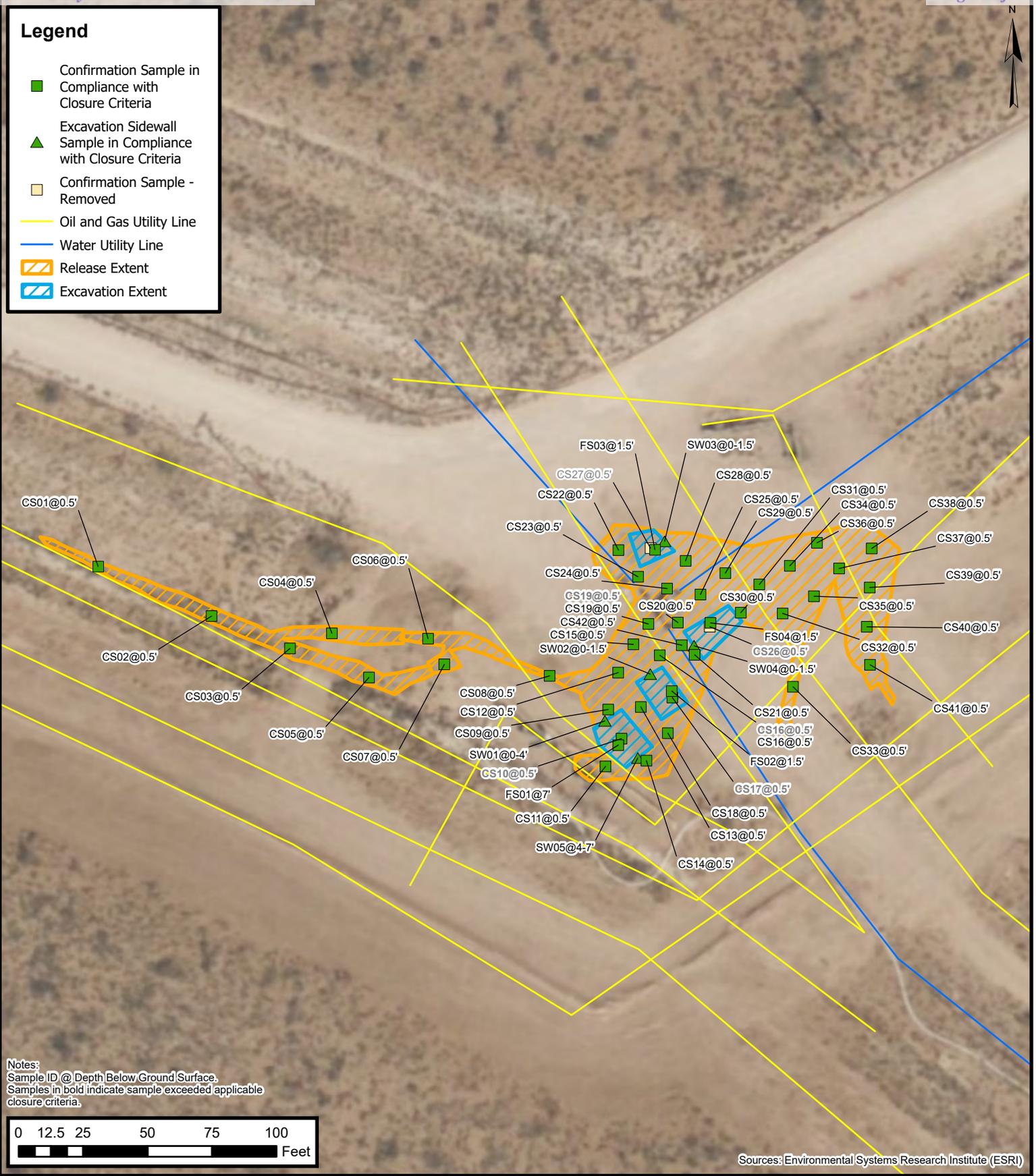
**Site Receptor Map**  
 XTO Energy Inc.  
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 Unit H, Section 22, T 24S, R 30E  
 Eddy County, New Mexico

**FIGURE**  
**1**

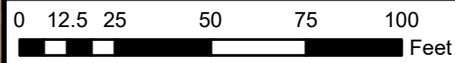


### Legend

- Confirmation Sample in Compliance with Closure Criteria
- ▲ Excavation Sidewall Sample in Compliance with Closure Criteria
- Confirmation Sample - Removed
- Oil and Gas Utility Line
- Water Utility Line
- Release Extent
- Excavation Extent



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



Sources: Environmental Systems Research Institute (ESRI)

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## Excavation Soil Sample Locations

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## FIGURE

# 3



TABLES



**TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS  
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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)
<b>NMOCDC Table 1 Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1,000</b>	<b>2,500</b>	<b>20,000</b>
<b>Delineation Soil Samples</b>										
SS01	8/20/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SS02	8/20/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SS03	8/20/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SS04	8/20/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SS05	8/20/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SS06	8/20/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SS07	8/20/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
BH04	10/24/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
BH04A	10/24/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
BH04D	11/5/2024	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	272
SS08	8/20/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
BH02D	11/6/2024	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SS09	10/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
BH01	10/24/2024	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192
BH01D	11/6/2024	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SS10	10/24/2024	0.5	<0.050	<0.300	<10.0	1,270	472	1,270	1,742	16.0
BH03B	11/6/2024	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
BH03E	11/6/2024	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,390
BH03F	11/6/2024	6	<0.050	<0.300	<10.0	11.3	<10.0	11.3	11.3	928
SS11	10/24/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
BH05D	11/5/2024	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
<b>Confirmation Soil Samples</b>										
CS01	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
CS02	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
CS03	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
CS04	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS05	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
CS06	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
CS07	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
CS08	12/19/2024	0.5	<0.050	<0.300	<10.0	72.9	19.9	72.9	92.8	32.0
CS09	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
CS10	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	768
CS11	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160



**TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS  
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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)
NMOC Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
CS12	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
CS13	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
CS14	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192
CS15	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
CS16	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
CS16	1/28/2025	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	352
CS17	12/19/2024	0.5	<0.050	<0.300	<10.0	642	363	642	975	32.0
CS18	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
CS19	12/19/2024	0.5	<0.050	<0.300	<10.0	670	377	670	1,047	<16.0
CS19	1/28/2025	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
CS20	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS21	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
CS22	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
CS23	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
CS24	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
CS25	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
CS26	12/19/2024	0.5	<0.050	<0.300	<10.0	138	74.5	138	213	64.0
CS27	12/19/2024	0.5	<0.050	<0.300	<10.0	79.4	34.9	79.4	114	48.0
CS28	12/19/2024	0.5	<0.050	<0.300	<10.0	35.0	18.3	35.0	53.3	48.0
CS29	12/19/2024	0.5	<0.050	<0.300	<10.0	14.8	<10.0	14.8	14.8	64.0
CS30	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
CS31	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
CS32	12/19/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
CS33	12/20/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
CS34	12/20/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
CS35	12/20/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
CS36	12/20/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208
CS37	12/20/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192
CS38	12/20/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
CS39	12/20/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
CS40	12/20/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
CS41	12/20/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192
CS42	1/29/2025	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160



**TABLE 1  
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<b>NMOCDC Table 1 Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1,000</b>	<b>2,500</b>	<b>20,000</b>
<b>Excavation Soil Samples</b>										
FS01	1/27/2025	7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	432
FS02	1/28/2025	1.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	304
FS03	1/29/2025	1.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FS04	1/29/2025	1.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
SW01	1/29/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	464
SW02	1/29/2025	0-1.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	400
SW03	1/29/2025	0-1.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW04	1/29/2025	0-1.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
SW05	1/29/2025	4-7	<0.050	<0.300	<10.0	10.3	<10.0	10.3	10.3	640

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCDC: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCDC 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

NMOCD Correspondence

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**FW: XTO Extension Request - Multiple Past-Due Incidents Discovered**

---

**From** Romero, Alan <alan.romero1@exxonmobil.com>

**Date** Fri 8/16/2024 2:14 PM

**To** Tacoma Morrissey <tmorrissey@ensolum.com>; Ben Belill <bbelill@ensolum.com>

 1 attachment (37 KB)

XTO Multiple Incidents Extension Request 8-16-24.pdf;

[ \*\*EXTERNAL EMAIL\*\* ]

---

**From:** Romero, Alan

**Sent:** Friday, August 16, 2024 11:59 AM

**To:** NMOCD (ocd.enviro@emnrd.nm.gov) <ocd.enviro@emnrd.nm.gov>

**Cc:** amanda.garcia@exxonmobil.com; amy.ruth@exxonmobil.com; Brown, Colton S <colton.s.brown@exxonmobil.com>; Dirkx, Kaylan <kaylan.dirkx@exxonmobil.com>; Smith, Kailee /C <kailee.smith@exxonmobil.com>

**Subject:** XTO Extension Request - Multiple Past-Due Incidents Discovered

Good Afternoon,

XTO is requesting an extension for a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC for the attached locations/incident numbers listed in this message. We understand that the releases all occurred between February and March of this year and attendant documentation is overdue. Kindly be aware that these occurred during a high turnover period of personnel in our department, transitioning staff, and a large company-wide data migration that collectively disturbed our incident tracking efforts for remediation. In our efforts to correct the issue, XTO is proactively assigning each of these incidents to be successfully addressed by contractors for closure in accordance with 19.15.29.12 NMAC.

Please let me know if there is any more information or clarity I can provide. Thank you for your time and consideration.

Respectfully,

**Alan Romero**

Environmental/Regulatory Advisor

Permian Business Unit – New Mexico Delaware Basin

**ExxonMobil Upstream Oil & Gas Company Unconventional**

3104 East Greene Street

Carlsbad, New Mexico 88220

Direct: (575) 988-3383

**Poker Lake Unit 22 DTD**

NAPP2405961992

Release Date: 2/14/24

Closure Due Date: 5/14/24

**PLU 342**

NAPP2407438506

Release Date: 2/27/24

Closure Due Date: 5/27/24

**PLU South Pond**

NAPP2405971517

Release Date: 2/14/24

Closure Due Date: 5/14/24

**PLU 25 CTB**

NAPP2408553359

Release Date: 3/11/24

Closure Due Date: 6/10/24

**PLU 28 Big Sinks West Battery**

NAPP2406159589

Release Date: 2/16/24

Closure Due Date: 5/16/24

**Big Eddy Hackberry 34 Battery**

NAPP2408932392

Release Date: 3/15/24

Closure Due Date: 6/13/24

**Poker Lake Unit 26 BD W CVB**

NAPP2406161820

Release Date: 2/16/24

Closure Due Date: 5/16/24

**Poker Lake Unit 28-21 Big Sinks**

NAPP2409248851

Release Date: 3/19/24

Closure Due Date: 6/17/24

**Nash Unit 53 SWD**

NAPP2406163532

Release Date: 2/20/24

Closure Due Date: 5/20/24

**Perla Verde 31 State 001H**

NAPP2412749555

Release Date: 5/2/24

Closure Due Date: 7/31/24



## APPENDIX B

### Referenced Well Records

---



2904 W 2nd St.  
Roswell, NM 88201  
voice: 575.624.2420  
fax: 575.624.2421  
www.atkinseng.com

February 10, 2025

DII-NMOSE  
1900 W 2<sup>nd</sup> Street  
Roswell, NM 88201

*Hand Delivered to the DII Office of the State Engineer*

Re: Well Record C-4911 Pod-1

To whom it may concern:

Attached please find a well log & record and a plugging record, in duplicate, for a one (1) soil borings, C-4911 Pod-1.

If you have any questions, please contact me at 575.499.9244 or [lucas@atkinseng.com](mailto:lucas@atkinseng.com).

Sincerely,

A handwritten signature in black ink that reads "Lucas Middleton". The signature is written in a cursive style.

Lucas Middleton

Enclosures: as noted above

STATE OF NEW MEXICO  
20 FEB 2025 11:31 AM



# 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.) POD 1 (TW-1)		WELL TAG ID NO. N/A		OSE FILE NO(S). C-4911	
	WELL OWNER NAME(S) XTO Energy, Inc.				PHONE (OPTIONAL)	
	WELL OWNER MAILING ADDRESS 3104 E. Greene St.				CITY Carlsbad	STATE NM
					ZIP 88220	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 12	SECONDS 32.23	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND
	LONGITUDE 103	51	54.46	W	* DATUM REQUIRED: WGS 84	
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE NE NW NE Sec. 22, T 24S R30E						

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 01/16/2025	DRILLING ENDED 01/16/2025	DEPTH OF COMPLETED WELL (FT) Temporary Well Material	BORE HOLE DEPTH (FT) ±105	DEPTH WATER FIRST ENCOUNTERED (FT) N/A			
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN *add Centralizer info below <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A	DATE STATIC MEASURED 1/16/25, 1/24/25		
	DRILLING FLUID: <input 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					CHECK HERE IF PITLESS ADAPTER IS INSTALLED <input type="checkbox"/>		
	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	104	±6.25	Soil Boring	--	--	--	--

3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL <i>*(if using Centralizers for Artesian wells- indicate the spacing below)</i>	AMOUNT (cubic feet)	METHOD OF PLACEMENT
	FROM	TO				
				N/A		

FOR OSE INTERNAL USE			WR-20 WELL RECORD & LOG (Version 09/22/2022)		
FILE NO.		POD NO.	TRN NO.		
LOCATION			WELL TAG ID NO.		PAGE 1 OF 2





# PLUGGING RECORD



**NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC**

## I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C-4911 POD-1

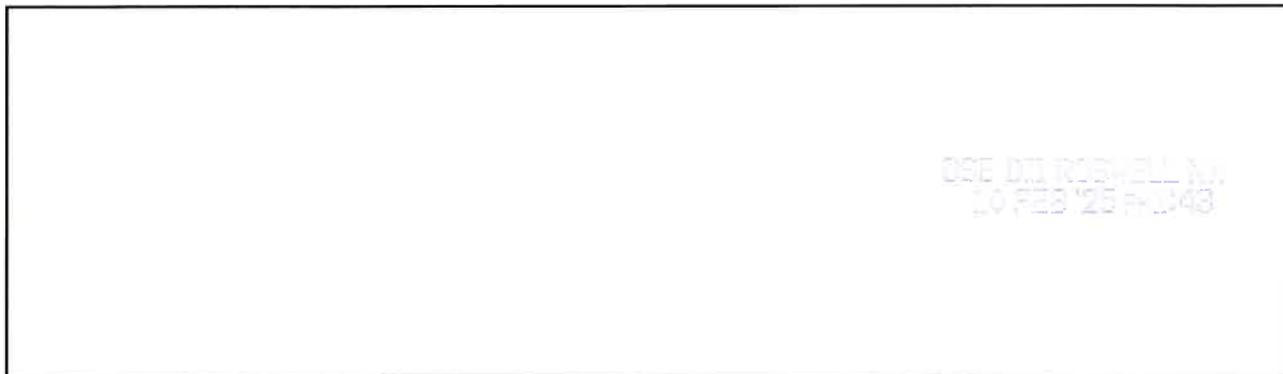
Well owner: XTO Energy, Inc. Phone No.: \_\_\_\_\_

Mailing address: 3104 E. Greene St.

City: Carlsbad State: New Mexico Zip code: 88220

## II. WELL PLUGGING INFORMATION:

- 1) Name of well drilling company that plugged well: Jackie D. Atkins ( Atkins Engineering Associates Inc.)
- 2) New Mexico Well Driller License No.: 1249 Expiration Date: 04/30/25
- 3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Lucas Middleton
- 4) Date well plugging began: 01/24/2024 Date well plugging concluded: 01/24/2024
- 5) GPS Well Location: Latitude: 32 deg, 12 min, 32.23 sec  
Longitude: 103 deg, 51 min, 54.46 sec, WGS 84
- 6) Depth of well confirmed at initiation of plugging as: 104 ft below ground level (bgl),  
by the following manner: water level probe
- 7) Static water level measured at initiation of plugging: n/a ft bgl
- 8) Date well plugging plan of operations was approved by the State Engineer: 11/5/2025
- 9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):



OSE DRI RUSSELL M  
20 FEB '25 PM 1:43

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

<u>Depth</u> (ft bgl)	<u>Plugging Material Used</u> (include any additives used)	<u>Volume of Material Placed</u> (gallons)	<u>Theoretical Volume of Borehole/ Casing</u> (gallons)	<u>Placement Method</u> (tremie pipe, other)	<u>Comments</u> ("casing perforated first", "open annular space also plugged", etc.)
0-10'	Hydrated Bentonite	Approx. 15 gallons	15 gallons	Boring	
10'-104'	Drill Cuttings	Approx. 150 gallons	150 gallons	Boring	

OGE OF RUSSELL W/ 20 FEB 25 11:48

MULTIPLY	BY	AND OBTAIN
cubic feet x	7.4805	= gallons
cubic yards x	201.97	= gallons

**III. SIGNATURE:**

I, Jackie D. Atkins, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

  
Jackie D. Atkins (Feb 10, 2025 10:06 MST)

Signature of Well Driller

02/10/2025

Date

# C-4911-WR-20 Well Record and Log-packet-for sign-PLU 22 DTD CVB

Final Audit Report

2025-02-10

Created:	2025-02-10
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAYV7CZPFqKvAvffT7-gD4dnbIVV-wqNZb

## "C-4911-WR-20 Well Record and Log-packet-forsign-PLU 22 DT D CVB" History

-  Document created by Lucas Middleton (lucas@atkinseng.com)  
2025-02-10 - 4:55:10 PM GMT
-  Document emailed to Jack Atkins (jack@atkinseng.com) for signature  
2025-02-10 - 4:57:47 PM GMT
-  Email viewed by Jack Atkins (jack@atkinseng.com)  
2025-02-10 - 5:01:16 PM GMT
-  Document e-signed by Jack Atkins (jack@atkinseng.com)  
Signature Date: 2025-02-10 - 5:06:00 PM GMT - Time Source: server
-  Agreement completed.  
2025-02-10 - 5:06:00 PM GMT

USE DIX RECORDS UNIT  
10 FEB '25 2:14P



## APPENDIX C

### Photographic Log

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**Photographic Log**

XTO Energy, Inc.

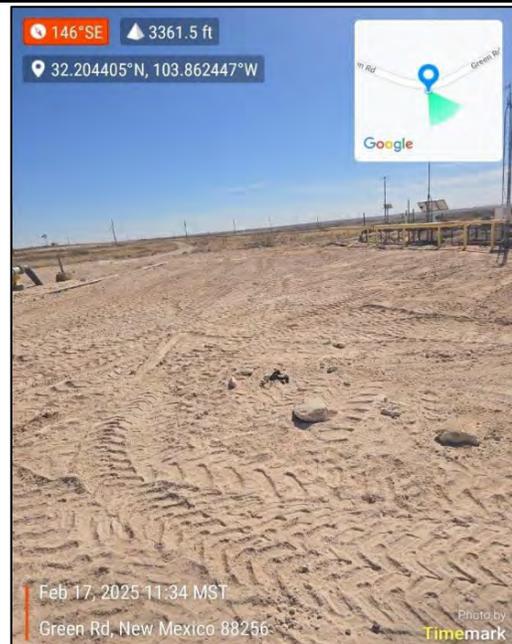
PLU 342

nAPP2407438506



Photograph: 5 Date: 1/24/2025  
Description: Excavation activities  
View: South

Photograph: 6 Date: 1/30/2025  
Description: Excavation activities  
View: West



Photograph: 7 Date: 1/30/2025  
Description: Excavation activities  
View: South

Photograph: 8 Date: 2/17/2025  
Description: Backfill activities  
View: Southeast



## APPENDIX D

### Lithologic Soil Sampling Logs

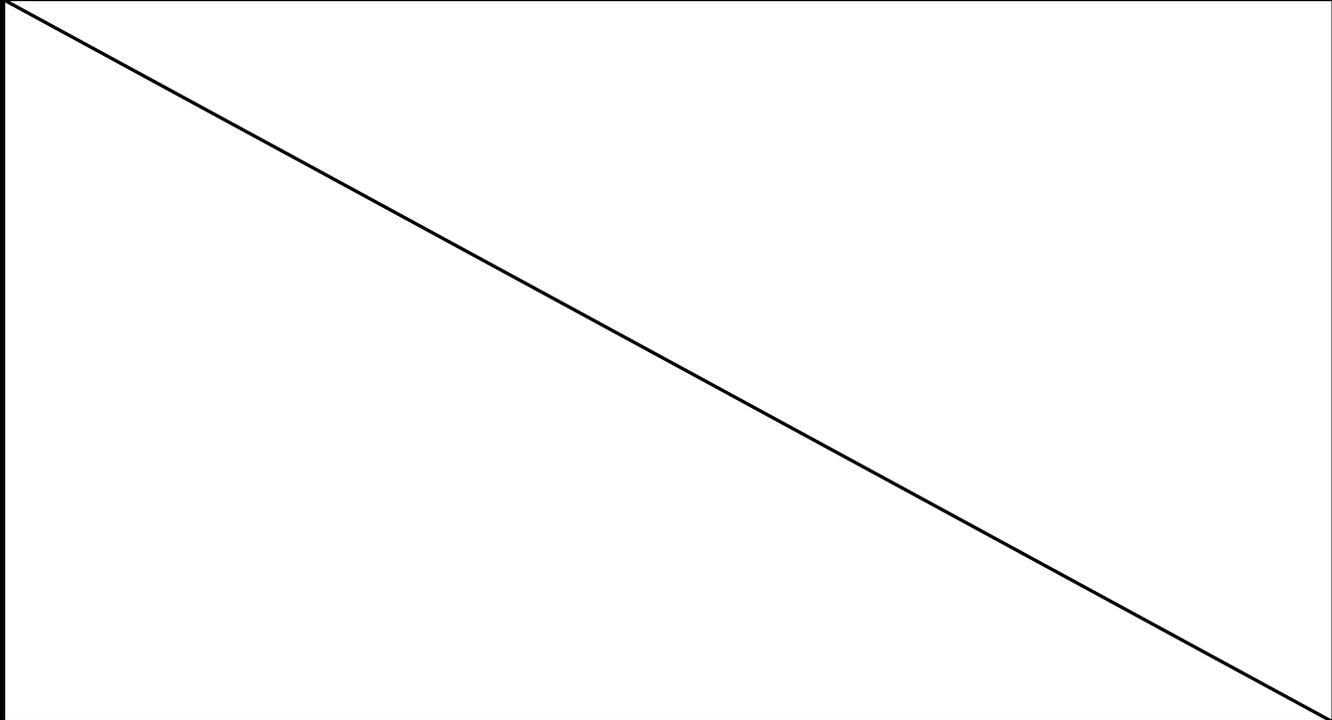
---

		Sample Name: BH01/SS09		Date: 10/24/24, 11/06/2024					
		Site Name: PLU 342							
		Incident Number: nAPP2407438506							
		Job Number: 03C1558506							
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>									
Coordinates: 32.2042922, -103.8627278			Logged By: CW, SB		Method: hand auger/core drill				
			Hole Diameter: 2"		Total Depth: 4'				
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
D	<168	0.0	N	SS09	0.5	0	SP	SAND, very fine brown sand and silt with gravel. No stain or odor.	
D	<168	0.0	N	BH01A	1	1	CCHE	CALICHE, with solid rock, and some sand. No stain or odor.	
M	<168	0.0	N		2	2	SC	CLAY, solid rock with clay sludge. No stain or odor.	
M	<168	0.0	N		3	3			
M	<168	0.0	N	BH01D	4	4	GC	CLAY, well graded clay with gravel. No stain or odor.	
Total depth @ 4' bgs.									
<div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; width: 100%; height: 100%;"></div>									

					Sample Name: BH02/SS08		Date: 10/24/24, 11/06/2024	
					Site Name: PLU 342			
					Incident Number: nAPP2407438506			
					Job Number: 03C1558506			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>					Logged By: CW, SB		Method: Hand auger/core drill	
Coordinates: 32.2042562, -103.8625064					Hole Diameter: 2"		Total Depth: 4'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<174	0.0	N	SS08	0.5	0	CCHE	CALICHE tan caliche with rock. No stain or odor.
D	<168	0.0	N			1		
D	<168	0.0	N		SP	2	CCHE	CALICHE, solid rock. No stain or odor.
M	<168	0.0	N			3	SC	Solid rock with clay sludge. No stain or odor.
M	<168	0.0	N	BH02D		4		
Total depth @ 4' bgs.								
<div style="border: 1px solid black; width: 100%; height: 100%; position: relative;"> <span style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black;"></span> </div>								

							Sample Name: BH03/SS10		Date: 10/24/24, 11/06/2024	
							Site Name: PLU 342			
							Incident Number: nAPP2407438506			
							Job Number: 03C1558506			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>							Logged By: CW, SB		Method: hand auger/core drill	
Coordinates: 32.2041468, -103.8621608							Hole Diameter: 2"		Total Depth: 4'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.										
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions		
D	<168	0.0	N	SS10	0.5	0	SP	SAND, very fine brown sand with silt. Poorly graded, with caliche gravel. No stain and faint odor.		
D	<168	0.0	N		1	1	SP	SAND, poorly graded sand and solid rock. No stain and no odor.		
M	<168	0.0	N	BH03B	2	2	SC	CLAY, solid rock with clay. No stain and no odor.		
M	<168	0.0	N		3	3	SC	CLAY, solid rock with clay sludge. No stain or odor.		
M	1,019	0.0	N		4	4				
M	1,299	0.00	N	BH03E	5	5				
M	330	0.0	N	BH03F	6	6				
Total depth @ 6' bgs.										

							Sample Name: BH04/SS07		Date: 10/24/24, 11/05/2024	
							Site Name: PLU 342			
							Incident Number: nAPP2407438506			
							Job Number: 03C1558506			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>							Logged By: CW, SB		Method: hand auger, core drill	
Coordinates: 32.2042749, -103.8620306							Hole Diameter: 2"		Total Depth: 4'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.										
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions		
D	168	0.0	N	SS07	0.5	0	SP	SAND, very fine brown sand and silt. Poorly graded and with caliche gravel. No stain or odor.		
D	<168	0.0	N	BH04	1	1				
D	<168	0.0	N	BH04A	2	2				
M	<168	0.0	N		3	3	CCHE	CALICHE, tan caliche. No stain or odor.		
M	<168	0.0	N	BH04D	4	4				
Total depth @ 4' bgs.										
<div style="border: 1px solid black; width: 100%; height: 100%; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black;"></div> </div>										

		Sample Name: BH05/SS11		Date: 10/24/24, 11/05/2024				
		Site Name: PLU 342						
		Incident Number: nAPP2407438506						
		Job Number: 03C1558506						
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>				Logged By: CW, SB		Method: hand auger, core drill		
Coordinates: 32.2043292, -103.8618775				Hole Diameter: 2"		Total Depth: 4'		
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 40% correction factors included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	<168	0.0	N	SS11	0.5	0	CCHE	CALICHE, caliche with well graded sand. No stain or odor.
M	<168	0.0	N		1	1		
M	<168	0.0	N		2	2		
M	<168	0.0	N		3	3		
M	<168	0.0	N	BH05D	4	4	CCHE	CALICHE, solid rock. No stain or odor.
Total depth @ 4' bgs.								
								



APPENDIX E  
Disposal Manifests

---

NEW MEXICO NON-HAZARDOUS OILFIELD WASTE MANIFEST

Company Man Contact Information



(PLEASE PRINT) \*REQUIRED INFORMATION\*

Name \_\_\_\_\_ Phone No. \_\_\_\_\_

GENERATOR

NO. HW-7038549

Generator Manifest # \_\_\_\_\_
Generator Name \_\_\_\_\_
Address \_\_\_\_\_
City, State, Zip \_\_\_\_\_
Phone No. \_\_\_\_\_

Location of Origin Lease/Well Name & No. \_\_\_\_\_
County \_\_\_\_\_
API No. \_\_\_\_\_
Rig Name & No. \_\_\_\_\_
AFE/PO No. \_\_\_\_\_

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Table with columns for waste types: Oil Based Muds, Oil Based Cuttings, Water Based Muds, Water Based Cuttings, Produced Formation Solids, Tank Bottoms, E&P Contaminated Soil, Gas Plant Waste, NON-INJECTABLE WATERS, OTHER EXEMPT E&P WASTE STREAMS, INTERNAL USE ONLY, TOP SOIL & CALICHE SALES.

WASTE GENERATION PROCESS: [ ] DRILLING [ ] COMPLETION [ ] PRODUCTION [ ] GATHERING LINES

NON-EXEMPT E&P Waste/Service Identification and Amount
All non-exempt E&P waste must be analysed and be below threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

DISPOSAL QUANTITY 20 B - BARRELS L - LIQUID Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operation and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
MSDS Information [ ] RCRA Hazardous Waste Analysis [ ] Other (Provide Description Below) [ ]
EMERGENCY NON-OILFIELD: Emergency non-hazardous, non-oilfield waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a description of the waste must accompany this form)

(PRINT) AUTHORIZED AGENTS SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_ SIGNATURE \_\_\_\_\_

TRANSPORTER

Transporter's Name: Halo Services Driver's Name: Luis Becerra
Address: \_\_\_\_\_ Print Name: \_\_\_\_\_
Phone No.: \_\_\_\_\_ Phone No.: \_\_\_\_\_
Transporter Ticket #: \_\_\_\_\_ Truck No.: \_\_\_\_\_

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE \_\_\_\_\_ DRIVER'S SIGNATURE \_\_\_\_\_ DELIVERY DATE \_\_\_\_\_ DRIVER'S SIGNATURE \_\_\_\_\_

TRUCK TIME STAMP

IN: \_\_\_\_\_ OUT: \_\_\_\_\_

DISPOSAL FACILITY

RECEIVING AREA

Name/No. \_\_\_\_\_

Site Name/ Permit No.: Halfway Facility / NM1-006 Phone No.: 575-392-6368
Address: 6601 Hobbs Hwy US 62 / 180 Mile Marker 66 Carlsbad, NM 88220

NORM READINGS TAKEN? (Circle One) YES NO If YES, was reading > 50 micro roentgens? (Circle One) YES NO
PASS THE PAINT FILTER TEST? (Circle One) YES NO

TANK BOTTOMS

Table for Tank Bottoms with columns: Feet, Inches, BS&W/BBLs Received, Free Water, Total Received, BS&W (%)

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why? \_\_\_\_\_

NAME (PRINT) \_\_\_\_\_ DATE \_\_\_\_\_ TITLE \_\_\_\_\_ SIGNATURE \_\_\_\_\_

NEW MEXICO NON-HAZARDOUS OILFIELD WASTE MANIFEST

Company Man Contact information



(PLEASE PRINT) \*REQUIRED INFORMATION\*

Name K. J. ...

Phone No. ...

GENERATOR

NO. **HW-7038548**

Generator Manifest #, Generator Name, Address, City, State, Zip, Phone No., Location of Origin Lease/Well Name & No., County, API No., Rig Name & No., AFE/PO No.

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Table with columns: Oil Based Muds, Water Based Muds, Produced Formation Solids, Tank Bottoms, E&P Contaminated Soil, Gas Plant Waste, NON-INJECTABLE WATERS, INTERNAL USE ONLY, OTHER EXEMPT E&P WASTE STREAMS, TOP SOIL & CALICHE SALES.

WASTE GENERATION PROCESS:  DRILLING  COMPLETION  PRODUCTION  GATHERING LINES

NON-EXEMPT E&P Waste/Service Identification and Amount All non-exempt E&P waste must be analysed and be below threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other ... \*please select from Non-Exempt Waste List on back

DISPOSAL QUANTITY 20 B - BARRELS L - LIQUID Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operation and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
MSDS Information RCRA Hazardous Waste Analysis Other (Provide Description Below)
EMERGENCY NON-OILFIELD: Emergency non-hazardous, non-oilfield waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a description of the waste must accompany this form)

(PRINT) AUTHORIZED AGENTS SIGNATURE DATE SIGNATURE

TRANSPORTER

Transporter's Name, Address, Phone No., Transporter Ticket #, Driver's Name, Print Name, Phone No., Truck No.

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE DRIVER'S SIGNATURE DELIVERY DATE DRIVER'S SIGNATURE

TRUCK TIME STAMP

IN: OUT:

DISPOSAL FACILITY

RECEIVING AREA

Name/No. 20

Site Name/ Permit No. Halfway Facility / NM1-006 Address 6601 Hobbs Hwy US 62 / 180 Mile Marker 66 Carlsbad, NM 88220 Phone No. 575-392-6368

NORM READINGS TAKEN? (Circle One) YES NO If YES, was reading > 50 micro roentgens? (Circle One) YES NO PASS THE PAINT FILTER TEST? (Circle One) YES NO

TANK BOTTOMS

Table with columns: 1st Guage, 2nd Guage, Received, Feet, Inches, BS&W/BBLs Received, Free Water, Total Received, BS&W (%).

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

NAME (PRINT) DATE TITLE SIGNATURE

NEW MEXICO NON-HAZARDOUS OILFIELD WASTE MANIFEST

Company Man Contact information



(PLEASE PRINT) \*REQUIRED INFORMATION\*

Name: Keat Pitt Phone No. 757 888 4489

GENERATOR

NO. HW-7039462

Generator Manifest #, Generator Name (X70), Address, City, State, Zip, Phone No., Location of Origin, Lease/Well, Name & No., County, API No., Rig Name & No., AFE/PO No.

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Table with columns: Oil Based Muds, Oil Based Cuttings, Water Based Muds, Water Based Cuttings, Produced Formation Solids, Tank Bottoms, E&P Contaminated Soil, Gas Plant Waste, NON-INJECTABLE WATERS, OTHER EXEMPT E&P WASTE STREAMS, INTERNAL USE ONLY, TOP SOIL & CALICHE SALES.

WASTE GENERATION PROCESS: [ ] DRILLING [ ] COMPLETION [ ] PRODUCTION [ ] GATHERING LINES

NON-EXEMPT E&P Waste/Service Identification and Amount All non-exempt E&P waste must be analysed and be below threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other: \*please select from Non-Exempt Waste List on back

DISPOSAL QUANTITY: B - BARRELS, L - LIQUID, Y - YARDS, E - EACH

I hereby certify that the above listed material(s), is (are) not hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operation and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
MSDS Information, RCRA Hazardous Waste Analysis, Other (Provide Description Below)
EMERGENCY NON-OILFIELD: Emergency non-hazardous, non-oilfield waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a description of the waste must accompany this form)

(PRINT) AUTHORIZED AGENTS SIGNATURE, DATE, SIGNATURE

TRANSPORTER

Transporter's Name (Hick Services), Address, Phone No., Transporter Ticket #, Driver's Name (Stephan), Print Name, Phone No., Truck No. (T34 Belly Dump)

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE, DRIVER'S SIGNATURE, DELIVERY DATE (1-30-25), DRIVER'S SIGNATURE (Stephan Kessler)

TRUCK TIME STAMP

DISPOSAL FACILITY

RECEIVING AREA

IN: OUT: Name/No. (28)

Site Name/Permit No. (Halfway Facility / NM1-006), Address (6601 Hobbs Hwy US 62 / 180 Mile Marker 66 Carlsbad, NM 88220), Phone No. (575-392-6368)

NORM READINGS TAKEN? (Circle One) YES NO If YES, was reading > 50 micro roentgens? (Circle One) YES NO
PASS THE PAINT FILTER TEST? (Circle One) YES NO

TANK BOTTOMS

Table with columns: Feet, Inches, BS&W/BBLS Received, Free Water, Total Received, BS&W (%)

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

NAME (PRINT), DATE (1-30-25), TITLE, SIGNATURE

NEW MEXICO NON-HAZARDOUS OILFIELD WASTE MANIFEST

Company Man Contact information



(PLEASE PRINT) \*REQUIRED INFORMATION\*

Name \_\_\_\_\_ Phone No. \_\_\_\_\_

GENERATOR

NO. HW-7039463

Generator Manifest # \_\_\_\_\_
Generator Name XTO
Address \_\_\_\_\_
City, State, Zip \_\_\_\_\_
Phone No. \_\_\_\_\_

Location of Origin \_\_\_\_\_
Lease/Well Name & No. \_\_\_\_\_
County \_\_\_\_\_
API No. \_\_\_\_\_
Rig Name & No. \_\_\_\_\_
AFE/PO No. \_\_\_\_\_

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Table with columns for waste types: Oil Based Muds, Water Based Muds, Produced Formation Solids, Tank Bottoms, E&P Contaminated Soil, Gas Plant Waste, NON-INJECTABLE WATERS, INTERNAL USE ONLY, OTHER EXEMPT E&P WASTE STREAMS, TOP SOIL & CALICHE SALES.

WASTE GENERATION PROCESS: [ ] DRILLING [ ] COMPLETION [ ] PRODUCTION [ ] GATHERING LINES

NON-EXEMPT E&P Waste/Service Identification and Amount
All non-exempt E&P waste must be analysed and be below threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

DISPOSAL QUANTITY B - BARRELS L - LIQUID Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operation and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
MSDS Information [ ] RCRA Hazardous Waste Analysis [ ] Other (Provide Description Below)
EMERGENCY NON-OILFIELD: Emergency non-hazardous, non-oilfield waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a description of the waste must accompany this form)

(PRINT) AUTHORIZED AGENTS SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_ SIGNATURE \_\_\_\_\_

TRANSPORTER

Transporter's Name Water Services
Address \_\_\_\_\_
Phone No. \_\_\_\_\_
Transporter Ticket # \_\_\_\_\_
Driver's Name Stephen
Print Name \_\_\_\_\_
Phone No. \_\_\_\_\_
Truck No. T34

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE \_\_\_\_\_ DRIVER'S SIGNATURE \_\_\_\_\_ DELIVERY DATE 1-30-25 DRIVER'S SIGNATURE \_\_\_\_\_

TRUCK TIME STAMP

DISPOSAL FACILITY

RECEIVING AREA

IN: \_\_\_\_\_ OUT: \_\_\_\_\_ Name/No. \_\_\_\_\_

Site Name/ Permit No. Halfway Facility / NM1-006 Phone No. 575-392-6368
Address 6601 Hobbs Hwy US 62 / 180 Mile Marker 66 Carlsbad, NM 88220

NORM READINGS TAKEN? (Circle One) YES NO If YES, was reading > 50 micro roentgens? (Circle One) YES NO
PASS THE PAINT FILTER TEST? (Circle One) YES NO

TANK BOTTOMS

Table with columns for Tank Bottoms: Feet, Inches, BS&W/BBLs Received, Free Water, Total Received, BS&W (%)

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why? \_\_\_\_\_

NAME (PRINT) \_\_\_\_\_ DATE \_\_\_\_\_ TITLE \_\_\_\_\_ SIGNATURE \_\_\_\_\_



## APPENDIX F

### Laboratory Analytical Reports & Chain of Custody Documentation

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

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August 26, 2024

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

RE: PLU 342

Enclosed are the results of analyses for samples received by the laboratory on 08/20/24 14:48.

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 "Mike Snyder".

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



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

**Analytical Results For:**

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

Received:	08/20/2024	Sampling Date:	08/20/2024
Reported:	08/26/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	031558506	Sample Received By:	Alyssa Parras
Project Location:	XTO ( 32.204208-103.862151 )		

**Sample ID: SS 01 0.5' (H245064-01)**

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	08/21/2024	ND	2.19	109	2.00	0.199	
Toluene*	<0.050	0.050	08/21/2024	ND	2.25	113	2.00	1.55	
Ethylbenzene*	<0.050	0.050	08/21/2024	ND	2.26	113	2.00	0.302	
Total Xylenes*	<0.150	0.150	08/21/2024	ND	6.87	115	6.00	0.217	
Total BTEX	<0.300	0.300	08/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 121 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/22/2024	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/22/2024	ND	197	98.7	200	0.385	
DRO >C10-C28*	<10.0	10.0	08/22/2024	ND	189	94.5	200	1.39	
EXT DRO >C28-C36	<10.0	10.0	08/22/2024	ND					

Surrogate: 1-Chlorooctane 75.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.5 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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



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

**Analytical Results For:**

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

Received:	08/20/2024	Sampling Date:	08/20/2024
Reported:	08/26/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	031558506	Sample Received By:	Alyssa Parras
Project Location:	XTO ( 32.204208-103.862151 )		

**Sample ID: SS 02 0.5' (H245064-02)**

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	08/21/2024	ND	2.19	109	2.00	0.199	
Toluene*	<0.050	0.050	08/21/2024	ND	2.25	113	2.00	1.55	
Ethylbenzene*	<0.050	0.050	08/21/2024	ND	2.26	113	2.00	0.302	
Total Xylenes*	<0.150	0.150	08/21/2024	ND	6.87	115	6.00	0.217	
Total BTEX	<0.300	0.300	08/21/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 119 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/22/2024	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/22/2024	ND	197	98.7	200	0.385	
DRO >C10-C28*	<10.0	10.0	08/22/2024	ND	189	94.5	200	1.39	
EXT DRO >C28-C36	<10.0	10.0	08/22/2024	ND					

Surrogate: 1-Chlorooctane 78.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.5 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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



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

**Analytical Results For:**

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

Received:	08/20/2024	Sampling Date:	08/20/2024
Reported:	08/26/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	031558506	Sample Received By:	Alyssa Parras
Project Location:	XTO ( 32.204208-103.862151 )		

**Sample ID: SS 03 0.5' (H245064-03)**

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	08/22/2024	ND	2.19	109	2.00	0.199	
Toluene*	<0.050	0.050	08/22/2024	ND	2.25	113	2.00	1.55	
Ethylbenzene*	<0.050	0.050	08/22/2024	ND	2.26	113	2.00	0.302	
Total Xylenes*	<0.150	0.150	08/22/2024	ND	6.87	115	6.00	0.217	
Total BTEX	<0.300	0.300	08/22/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 121 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/22/2024	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/22/2024	ND	197	98.7	200	0.385	
DRO >C10-C28*	<10.0	10.0	08/22/2024	ND	189	94.5	200	1.39	
EXT DRO >C28-C36	<10.0	10.0	08/22/2024	ND					

Surrogate: 1-Chlorooctane 77.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.8 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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



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

**Analytical Results For:**

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

Received:	08/20/2024	Sampling Date:	08/20/2024
Reported:	08/26/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	031558506	Sample Received By:	Alyssa Parras
Project Location:	XTO ( 32.204208-103.862151 )		

**Sample ID: SS 04 0.5' (H245064-04)**

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	08/22/2024	ND	2.19	109	2.00	0.199	
Toluene*	<0.050	0.050	08/22/2024	ND	2.25	113	2.00	1.55	
Ethylbenzene*	<0.050	0.050	08/22/2024	ND	2.26	113	2.00	0.302	
Total Xylenes*	<0.150	0.150	08/22/2024	ND	6.87	115	6.00	0.217	
Total BTEX	<0.300	0.300	08/22/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 123 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/22/2024	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/22/2024	ND	197	98.7	200	0.385	
DRO >C10-C28*	<10.0	10.0	08/22/2024	ND	189	94.5	200	1.39	
EXT DRO >C28-C36	<10.0	10.0	08/22/2024	ND					

Surrogate: 1-Chlorooctane 84.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.0 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

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



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

**Analytical Results For:**

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

Received:	08/20/2024	Sampling Date:	08/20/2024
Reported:	08/26/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	031558506	Sample Received By:	Alyssa Parras
Project Location:	XTO ( 32.204208-103.862151 )		

**Sample ID: SS 05 0.5' (H245064-05)**

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	08/22/2024	ND	2.19	109	2.00	0.199	
Toluene*	<0.050	0.050	08/22/2024	ND	2.25	113	2.00	1.55	
Ethylbenzene*	<0.050	0.050	08/22/2024	ND	2.26	113	2.00	0.302	
Total Xylenes*	<0.150	0.150	08/22/2024	ND	6.87	115	6.00	0.217	
Total BTEX	<0.300	0.300	08/22/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 120 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/22/2024	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/22/2024	ND	197	98.7	200	0.385	
DRO >C10-C28*	<10.0	10.0	08/22/2024	ND	189	94.5	200	1.39	
EXT DRO >C28-C36	<10.0	10.0	08/22/2024	ND					

Surrogate: 1-Chlorooctane 82.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.4 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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



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

**Analytical Results For:**

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

Received:	08/20/2024	Sampling Date:	08/20/2024
Reported:	08/26/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	031558506	Sample Received By:	Alyssa Parras
Project Location:	XTO ( 32.204208-103.862151 )		

**Sample ID: SS 06 0.5' (H245064-06)**

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	08/22/2024	ND	2.19	109	2.00	0.199	
Toluene*	<0.050	0.050	08/22/2024	ND	2.25	113	2.00	1.55	
Ethylbenzene*	<0.050	0.050	08/22/2024	ND	2.26	113	2.00	0.302	
Total Xylenes*	<0.150	0.150	08/22/2024	ND	6.87	115	6.00	0.217	
Total BTEX	<0.300	0.300	08/22/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 122 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/22/2024	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/22/2024	ND	197	98.7	200	0.385	
DRO >C10-C28*	<10.0	10.0	08/22/2024	ND	189	94.5	200	1.39	
EXT DRO >C28-C36	<10.0	10.0	08/22/2024	ND					

Surrogate: 1-Chlorooctane 81.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.2 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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



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

Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
\*\* Samples not received at proper temperature of 6°C or below.
\*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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\*=Accredited Analyte

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Handwritten signature of Mike Snyder

Mike Snyder For 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**

**BILL TO**

**ANALYSIS REQUEST**

Company Name: Ensolum, LLC  
 Project Manager: Tracy Hillard  
 Address: 601 N Marientfeld Street, Suite 400  
 City: Midland State: TX Zip: 79701  
 Phone #: 575-937-3900 Fax #:  
 Project #: 03015585010 Project Owner:  
 Project Name: PLU 342  
 Project Location: 32.204208, -103.802151  
 Sampler Name: Frey Hillard M. O'Dell  
 P.O. #: Company: XTO Energy  
 Attn: Amy Ruth  
 Address: 3104 E. Greene St  
 City: CARLSBAD  
 State: NM Zip: 88220  
 Phone #: Fax #:  
 PRESERV:  ICE / COOL  
 OTHER:

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	TPH 8015	BTEX 8021	Chloride 4500
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
H245674	SS01	0.5'	G	1			X				8/20/24	11:40	X	X	X
	SS02											11:45	X	X	X
	SS03											11:50	X	X	X
	SS04											11:55	X	X	X
	SS05											12:00	X	X	X
	SS06											12:05	X	X	X

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Relinquished By: *[Signature]* Date: 8/20/24  
 Received By: *[Signature]* Date: 8/20/24  
 Time: 4:44  
 Relinquished By: *[Signature]* Date: 8/20/24  
 Received By: *[Signature]* Date: 8/20/24  
 Time: 14:48

Delivered By: (Circle One) Observed Temp. °C: 24.4  
 Corrected Temp. °C: 18.8  
 Sample Condition: Cool Intact  Yes  No  
 Checked By: *[Signature]*  
 Turnaround Time: 5 days Standard  Rush   
 Thermometer ID: #119 #140  
 Correction Factor: 0.2°C -0.2°C  
 Bacteria (only) Sample Condition: Cool Intact  Yes  No  
 Corrected Temp. °C:  Yes  No

FORM 0067K3.2 10/07/21  
 † Cardinal cannot accept verbal changes. Please email changes to caley.keene@cardinallabsnm.com  
 AP 8-20-24



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

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August 26, 2024

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

RE: PLU 342

Enclosed are the results of analyses for samples received by the laboratory on 08/20/24 14:48.

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 "Mike Snyder". The signature is fluid and cursive.

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



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

**Analytical Results For:**

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

Received:	08/20/2024	Sampling Date:	08/20/2024
Reported:	08/26/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	031558506	Sample Received By:	Alyssa Parras
Project Location:	XTO ( 32.204208-103.862151 )		

**Sample ID: SS 07 0.5' (H245066-01)**

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	08/22/2024	ND	2.19	109	2.00	0.199	
Toluene*	<0.050	0.050	08/22/2024	ND	2.25	113	2.00	1.55	
Ethylbenzene*	<0.050	0.050	08/22/2024	ND	2.26	113	2.00	0.302	
Total Xylenes*	<0.150	0.150	08/22/2024	ND	6.87	115	6.00	0.217	
Total BTEX	<0.300	0.300	08/22/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	08/22/2024	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/22/2024	ND	203	102	200	0.619	
DRO >C10-C28*	<10.0	10.0	08/22/2024	ND	193	96.4	200	1.38	
EXT DRO >C28-C36	<10.0	10.0	08/22/2024	ND					

Surrogate: 1-Chlorooctane 95.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 127 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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



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

**Analytical Results For:**

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

Received:	08/20/2024	Sampling Date:	08/20/2024
Reported:	08/26/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	031558506	Sample Received By:	Alyssa Parras
Project Location:	XTO ( 32.204208-103.862151 )		

**Sample ID: SS 08 0.5' (H245066-02)**

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	08/22/2024	ND	2.19	109	2.00	0.199	
Toluene*	<0.050	0.050	08/22/2024	ND	2.25	113	2.00	1.55	
Ethylbenzene*	<0.050	0.050	08/22/2024	ND	2.26	113	2.00	0.302	
Total Xylenes*	<0.150	0.150	08/22/2024	ND	6.87	115	6.00	0.217	
Total BTEX	<0.300	0.300	08/22/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 123 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/22/2024	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/22/2024	ND	203	102	200	0.619	
DRO >C10-C28*	<10.0	10.0	08/22/2024	ND	193	96.4	200	1.38	
EXT DRO >C28-C36	<10.0	10.0	08/22/2024	ND					

Surrogate: 1-Chlorooctane 75.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.3 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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



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

**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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Mike Snyder For 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**

**BILL TO**

**ANALYSIS REQUEST**

Company Name: Ensolum, LLC  
 Project Manager: Tracy Hilliard  
 Address: 601 N. Marlenfield St. STE 400  
 City: Midland State: TX Zip: 79701  
 Phone #: 575-937-3904 Fax #:   
 Project #: 0361558506 Project Owner:   
 Project Name: PLU 342  
 Project Location: 32.204208, -103.802151  
 Sampler Name: M. O'Dell

P.O. #:   
 Company: XTO Energy  
 Attn: Amy Ruth  
 Address: 3104 E. Greener St  
 City: Carlsbad  
 State: NM Zip: 88220  
 Phone #:   
 Fax #:

Lab I.D.	Sample I.D.	Sample Depth (feet)	FOR LAB USE ONLY		DATE	TIME	ANALYSIS REQUEST		
			(G)RAB OR (C)OMP.	# CONTAINERS			Chlorides	TPH	BTEX
H245000	5507	0.5'	61	1	3/20/24	12:10	X	X	X
	5508	0.5'	61	1	3/20/24	12:15	X	X	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived, unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: *[Signature]*

Date: 3/20/24  
 Time: 14:44  
 Received By: *[Signature]*

Verbal Result:  Yes  No Add'l Phone #:   
 All Results are emailed. Please provide Email address:   
 Bshenning@ensolum.com kbelle@ensolum.com  
 bhillard@ensolum.com  
 t.morris@ensolum.com  
 REMARKS: Incident # : NHP2421837094  
 COST CENTER: 1139421001

Delivered By: (Circle One)  UPS  Bus  Other:   
 Observed Temp. °C: 24°C Corrected Temp. °C: 18°C  
 Sample Condition: Cool Intact  Yes  No  
 Checked By: *[Signature]*  
 Turnaround Time: 5 days Standard  Rush   
 Thermometer ID #113 #140  
 Correction Factor -0.16°C  
 Bacteria (only) Sample Condition: Cool Intact  Yes  No  
 Corrected Temp. °C:   
 T Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinalabnm.com



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

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October 29, 2024

TACOMA MORRISSEY

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: PLU 342

Enclosed are the results of analyses for samples received by the laboratory on 10/25/24 12:06.

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".

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	10/25/2024	Sampling Date:	10/24/2024
Reported:	10/29/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO		

**Sample ID: SS 09 0.5 (H246515-01)**

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	10/28/2024	ND	2.17	109	2.00	5.35	
Toluene*	<0.050	0.050	10/28/2024	ND	2.27	113	2.00	4.35	
Ethylbenzene*	<0.050	0.050	10/28/2024	ND	2.36	118	2.00	5.00	
Total Xylenes*	<0.150	0.150	10/28/2024	ND	7.02	117	6.00	4.89	
Total BTEX	<0.300	0.300	10/28/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/28/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/26/2024	ND	207	104	200	5.78	
DRO >C10-C28*	<10.0	10.0	10/26/2024	ND	199	99.7	200	6.41	
EXT DRO >C28-C36	<10.0	10.0	10/26/2024	ND					

Surrogate: 1-Chlorooctane 93.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.3 % 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  
 TACOMA MORRISSEY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	10/25/2024	Sampling Date:	10/24/2024
Reported:	10/29/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO		

**Sample ID: BH 01 1 (H246515-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/28/2024	ND	2.17	109	2.00	5.35	
Toluene*	<0.050	0.050	10/28/2024	ND	2.27	113	2.00	4.35	
Ethylbenzene*	<0.050	0.050	10/28/2024	ND	2.36	118	2.00	5.00	
Total Xylenes*	<0.150	0.150	10/28/2024	ND	7.02	117	6.00	4.89	
Total BTEX	<0.300	0.300	10/28/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	10/28/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/26/2024	ND	207	104	200	5.78	
DRO >C10-C28*	<10.0	10.0	10/26/2024	ND	199	99.7	200	6.41	
EXT DRO >C28-C36	<10.0	10.0	10/26/2024	ND					

Surrogate: 1-Chlorooctane 53.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 49.6 % 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  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	10/25/2024	Sampling Date:	10/24/2024
Reported:	10/29/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO		

**Sample ID: SS 10 0.5 (H246515-03)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/28/2024	ND	2.17	109	2.00	5.35		
Toluene*	<0.050	0.050	10/28/2024	ND	2.27	113	2.00	4.35		
Ethylbenzene*	<0.050	0.050	10/28/2024	ND	2.36	118	2.00	5.00		
Total Xylenes*	<0.150	0.150	10/28/2024	ND	7.02	117	6.00	4.89		
Total BTEX	<0.300	0.300	10/28/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>16.0</b>	16.0	10/28/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/26/2024	ND	207	104	200	5.78		
<b>DRO &gt;C10-C28*</b>	<b>1270</b>	10.0	10/26/2024	ND	199	99.7	200	6.41		
<b>EXT DRO &gt;C28-C36</b>	<b>472</b>	10.0	10/26/2024	ND						

Surrogate: 1-Chlorooctane 95.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	10/25/2024	Sampling Date:	10/24/2024
Reported:	10/29/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO		

**Sample ID: BH 04 1 (H246515-04)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/28/2024	ND	2.17	109	2.00	5.35	
Toluene*	<0.050	0.050	10/28/2024	ND	2.27	113	2.00	4.35	
Ethylbenzene*	<0.050	0.050	10/28/2024	ND	2.36	118	2.00	5.00	
Total Xylenes*	<0.150	0.150	10/28/2024	ND	7.02	117	6.00	4.89	
Total BTEX	<0.300	0.300	10/28/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>128</b>	16.0	10/28/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/26/2024	ND	207	104	200	5.78	
DRO >C10-C28*	<10.0	10.0	10/26/2024	ND	199	99.7	200	6.41	
EXT DRO >C28-C36	<10.0	10.0	10/26/2024	ND					

Surrogate: 1-Chlorooctane 94.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	10/25/2024	Sampling Date:	10/24/2024
Reported:	10/29/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO		

**Sample ID: BH 04A 2 (H246515-05)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/28/2024	ND	2.17	109	2.00	5.35		
Toluene*	<0.050	0.050	10/28/2024	ND	2.27	113	2.00	4.35		
Ethylbenzene*	<0.050	0.050	10/28/2024	ND	2.36	118	2.00	5.00		
Total Xylenes*	<0.150	0.150	10/28/2024	ND	7.02	117	6.00	4.89		
Total BTEX	<0.300	0.300	10/28/2024	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	
<b>Chloride</b>	<b>96.0</b>	16.0	10/28/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/26/2024	ND	207	104	200	5.78		
DRO >C10-C28*	<10.0	10.0	10/26/2024	ND	199	99.7	200	6.41		
EXT DRO >C28-C36	<10.0	10.0	10/26/2024	ND						

Surrogate: 1-Chlorooctane 81.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 TACOMA MORRISSEY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 10/25/2024  
 Reported: 10/29/2024  
 Project Name: PLU 342  
 Project Number: 03C1558506  
 Project Location: XTO

Sampling Date: 10/24/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SS 11 0.5 (H246515-06)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/28/2024	ND	2.17	109	2.00	5.35		
Toluene*	<0.050	0.050	10/28/2024	ND	2.27	113	2.00	4.35		
Ethylbenzene*	<0.050	0.050	10/28/2024	ND	2.36	118	2.00	5.00		
Total Xylenes*	<0.150	0.150	10/28/2024	ND	7.02	117	6.00	4.89		
Total BTEX	<0.300	0.300	10/28/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	10/28/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	10/26/2024	ND	207	104	200	5.78		
DRO >C10-C28*	<10.0	10.0	10/26/2024	ND	199	99.7	200	6.41		
EXT DRO >C28-C36	<10.0	10.0	10/26/2024	ND						

Surrogate: 1-Chlorooctane 96.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.5 % 49.1-148

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Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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*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**

**BILL TO**

**ANALYSIS REQUEST**

Company Name: Ensolum, LLC	P.O. #:
Project Manager: Tacoma Morrissey	Company: XTO Energy Inc.
Address: 3122 National Parks Hwy	Attn: Colton Brown
City: Carlsbad	Address: 3104 E. Green St.
Phone #: 337 257-8307	City: Carlsbad
Project #: 03C1558506	State: NM Zip: 88220
Project Name: PLU 342	Phone #:
Project Location:	Fax #:
Sampler Name: <i>Carlsbad</i>	

Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	BTEX	TPH	CHLORIDE
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
<i>1</i>	<i>SS09</i>	<i>0.5</i>	<i>G</i>	<i>1</i>								<i>10-21-24</i>	<i>1000</i>			
<i>2</i>	<i>BH01</i>	<i>1</i>											<i>1005</i>			
<i>3</i>	<i>SS10</i>	<i>0.5</i>											<i>1040</i>			
<i>4</i>	<i>BH04</i>	<i>1</i>											<i>1100</i>			
<i>5</i>	<i>BH04A</i>	<i>2</i>											<i>1105</i>			
<i>6</i>	<i>SS11</i>	<i>0.5</i>											<i>1130</i>			
																<i>CW</i>

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Relinquished By: *EMA* Date: *10/25/24* Time: *0900* Received By: *[Signature]*

Relinquished By: *[Signature]* Date: *10/25/24* Time: *10:30 AM* Received By: *[Signature]*

Delivered By: (Circle One) Observed Temp. °C: *3.32* Sample Condition: *Spodrigner* CHECKED BY: *SR*

Sampler - UPS - Bus - Other: Corrected Temp. °C: *2.02* Cool Intact:  Yes  No

Thermometer ID: *#140-0.01* Standard:  *Flash* Bacteria (only) Sample Condition:  Cool Intact  Yes  No

Correction Factor: *0.5°C* *2 Day* Incident ID: *NAPP2407438506*

REMARKS: Cost Center: 1139421001

Thillard@ensolum.com, T.Morrissey@ensolum.com, khomason@ensolum.com

† Cardinal cannot accept verbal changes. Please email changes to cely.keene@cardinaltransnm.com



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

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November 11, 2024

TACOMA MORRISSEY

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: PLU 342

Enclosed are the results of analyses for samples received by the laboratory on 11/07/24 14:10.

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, flowing "C" at the beginning.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	11/07/2024	Sampling Date:	11/06/2024
Reported:	11/11/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BH 01 D 4' (H246796-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/08/2024	ND	1.74	87.2	2.00	21.9	
Toluene*	<0.050	0.050	11/08/2024	ND	1.69	84.6	2.00	20.7	
Ethylbenzene*	<0.050	0.050	11/08/2024	ND	1.70	84.8	2.00	20.1	
Total Xylenes*	<0.150	0.150	11/08/2024	ND	5.00	83.4	6.00	20.4	
Total BTEX	<0.300	0.300	11/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	11/11/2024	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/08/2024	ND	201	101	200	0.230	
DRO >C10-C28*	<10.0	10.0	11/08/2024	ND	193	96.4	200	0.774	
EXT DRO >C28-C36	<10.0	10.0	11/08/2024	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 TACOMA MORRISSEY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	11/07/2024	Sampling Date:	11/06/2024
Reported:	11/11/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BH 02 D 4' (H246796-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/08/2024	ND	1.74	87.2	2.00	21.9	
Toluene*	<0.050	0.050	11/08/2024	ND	1.69	84.6	2.00	20.7	
Ethylbenzene*	<0.050	0.050	11/08/2024	ND	1.70	84.8	2.00	20.1	
Total Xylenes*	<0.150	0.150	11/08/2024	ND	5.00	83.4	6.00	20.4	
Total BTEX	<0.300	0.300	11/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.0 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	11/11/2024	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/08/2024	ND	201	101	200	0.230	
DRO >C10-C28*	<10.0	10.0	11/08/2024	ND	193	96.4	200	0.774	
EXT DRO >C28-C36	<10.0	10.0	11/08/2024	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	11/07/2024	Sampling Date:	11/06/2024
Reported:	11/11/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BH 03 B 2' (H246796-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/08/2024	ND	1.74	87.2	2.00	21.9	
Toluene*	<0.050	0.050	11/08/2024	ND	1.69	84.6	2.00	20.7	
Ethylbenzene*	<0.050	0.050	11/08/2024	ND	1.70	84.8	2.00	20.1	
Total Xylenes*	<0.150	0.150	11/08/2024	ND	5.00	83.4	6.00	20.4	
Total BTEX	<0.300	0.300	11/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>144</b>	16.0	11/11/2024	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/08/2024	ND	201	101	200	0.230	
DRO >C10-C28*	<10.0	10.0	11/08/2024	ND	193	96.4	200	0.774	
EXT DRO >C28-C36	<10.0	10.0	11/08/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 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  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	11/07/2024	Sampling Date:	11/06/2024
Reported:	11/11/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BH 03 E 5' (H246796-04)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/08/2024	ND	1.74	87.2	2.00	21.9	
Toluene*	<0.050	0.050	11/08/2024	ND	1.69	84.6	2.00	20.7	
Ethylbenzene*	<0.050	0.050	11/08/2024	ND	1.70	84.8	2.00	20.1	
Total Xylenes*	<0.150	0.150	11/08/2024	ND	5.00	83.4	6.00	20.4	
Total BTEX	<0.300	0.300	11/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.7 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1390	16.0	11/11/2024	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/08/2024	ND	201	101	200	0.230	
DRO >C10-C28*	<10.0	10.0	11/08/2024	ND	193	96.4	200	0.774	
EXT DRO >C28-C36	<10.0	10.0	11/08/2024	ND					

Surrogate: 1-Chlorooctane 94.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	11/07/2024	Sampling Date:	11/06/2024
Reported:	11/11/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BH 03 F 6' (H246796-05)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/08/2024	ND	1.74	87.2	2.00	21.9	
Toluene*	<0.050	0.050	11/08/2024	ND	1.69	84.6	2.00	20.7	
Ethylbenzene*	<0.050	0.050	11/08/2024	ND	1.70	84.8	2.00	20.1	
Total Xylenes*	<0.150	0.150	11/08/2024	ND	5.00	83.4	6.00	20.4	
Total BTEX	<0.300	0.300	11/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.2 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>928</b>	16.0	11/11/2024	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/08/2024	ND	201	101	200	0.230	
<b>DRO &gt;C10-C28*</b>	<b>11.3</b>	10.0	11/08/2024	ND	193	96.4	200	0.774	
EXT DRO >C28-C36	<10.0	10.0	11/08/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 71.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 TACOMA MORRISSEY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	11/07/2024	Sampling Date:	11/05/2024
Reported:	11/11/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BH 04 D 4' (H246796-06)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/08/2024	ND	1.74	87.2	2.00	21.9	
Toluene*	<0.050	0.050	11/08/2024	ND	1.69	84.6	2.00	20.7	
Ethylbenzene*	<0.050	0.050	11/08/2024	ND	1.70	84.8	2.00	20.1	
Total Xylenes*	<0.150	0.150	11/08/2024	ND	5.00	83.4	6.00	20.4	
Total BTEX	<0.300	0.300	11/08/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	11/11/2024	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/08/2024	ND	201	101	200	0.230	
DRO >C10-C28*	<10.0	10.0	11/08/2024	ND	193	96.4	200	0.774	
EXT DRO >C28-C36	<10.0	10.0	11/08/2024	ND					

Surrogate: 1-Chlorooctane 110 % 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  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	11/07/2024	Sampling Date:	11/05/2024
Reported:	11/11/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO		

**Sample ID: BH 05 D 4' (H246796-07)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/08/2024	ND	1.74	87.2	2.00	21.9	
Toluene*	<0.050	0.050	11/08/2024	ND	1.69	84.6	2.00	20.7	
Ethylbenzene*	<0.050	0.050	11/08/2024	ND	1.70	84.8	2.00	20.1	
Total Xylenes*	<0.150	0.150	11/08/2024	ND	5.00	83.4	6.00	20.4	
Total BTEX	<0.300	0.300	11/08/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.0 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	11/11/2024	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/08/2024	ND	201	101	200	0.230	
DRO >C10-C28*	<10.0	10.0	11/08/2024	ND	193	96.4	200	0.774	
EXT DRO >C28-C36	<10.0	10.0	11/08/2024	ND					

Surrogate: 1-Chlorooctane 104 % 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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Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-04 The RPD for the BS/BSD was outside of historical limits.
QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BS-3 Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
\*\* Samples not received at proper temperature of 6°C or below.
\*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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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**

**BILL TO**

**ANALYSIS REQUEST**

Company Name: Ensolum, LLC  
 Project Manager: Teona Morrissey  
 Address: 3122 National Parks Hwy  
 City: Carlsbad State: NM Zip: 88220  
 Phone #: 505-725-8300 Fax #:   
 Project #: 0304558506 Project Owner:   
 Project Name: OLV 3412  
 Project Location: Shere Keroses  
 Sampler Name: Shere Keroses  
 P.O. #:   
 Company: XTD Energy Inc  
 Attn: Colton Brass  
 Address: 204 E. Grand St  
 City: Carlsbad  
 State: NM Zip: 88220  
 Phone #: 505 116124  
 Fax #:   
 MATRIX:  GROUNDWATER  WASTEWATER  SOIL  OIL  SLUDGE  OTHER:   
 PRESERV:  ACID/BASE:  ICE / COOL  OTHER:   
 SAMPLING:   
 DATE:   
 TIME:   
 ANALYSIS REQUEST:   
 BTEX   
 PH   
 Chloride

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS REQUEST
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:			
<u>H24674</u>	<u>PH01D</u>	<u>4'</u>	<u>G</u>	<u>1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>11/6/24</u>	<u>13:58</u>	<input checked="" type="checkbox"/> BTEX				
	<u>PH02D</u>	<u>4'</u>	<u>G</u>	<u>1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>11/6/24</u>	<u>12:25</u>	<input checked="" type="checkbox"/> PH				
	<u>PH03B</u>	<u>2'</u>	<u>S</u>	<u>1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>10:50</u>	<u>09:47</u>	<input checked="" type="checkbox"/> Chloride				
	<u>PH03F</u>	<u>6'</u>	<u>S</u>	<u>1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>11:04</u>	<u>11:04</u>	<input checked="" type="checkbox"/> Chloride				
	<u>PH04D</u>	<u>4'</u>	<u>G</u>	<u>1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>11/5/24</u>	<u>15:47</u>	<input checked="" type="checkbox"/> Chloride				
	<u>PH05D</u>	<u>4'</u>	<u>G</u>	<u>1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>11/5/24</u>	<u>14:49</u>	<input checked="" type="checkbox"/> Chloride				

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Relinquished By: Shere Keroses  
 Date: 11-7-24  
 Time: 5:55  
 Received By: Teona Morrissey  
 Date: 11-7-24  
 Time: 14:10  
 Delivered By: (Circle One) Observer Temp. °C 2.3  
 Sampler - UPS - Bus - Other: Corrected Temp. °C 1.9  
 Sample Condition:  Cool Intact  Cool Intact  Yes  No  
 CHECKED BY: (initials)  
 Turnaround Time: 48 hrs Standard   
 Bacteria (only) Sample Condition:  Cool Intact  Cool Intact  Yes  No  
 Corrected Temp. °C: 1.9  
 Verbal Result:  Yes  No Add'l Phone #:   
 All Results are emailed. Please provide Email address: teona.morrissey@ensolum.com  
 REMARKS: teona.morrissey@ensolum.com

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



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December 30, 2024

TACOMA MORRISSEY

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: PLU 342

Enclosed are the results of analyses for samples received by the laboratory on 12/20/24 11:20.

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 "Mike Snyder". The signature is fluid and cursive.

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 01 0.5' (H247730-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/24/2024	ND	1.64	82.2	2.00	9.84	
Toluene*	<0.050	0.050	12/24/2024	ND	1.71	85.7	2.00	10.0	
Ethylbenzene*	<0.050	0.050	12/24/2024	ND	1.67	83.7	2.00	9.95	
Total Xylenes*	<0.150	0.150	12/24/2024	ND	4.91	81.8	6.00	9.91	
Total BTEX	<0.300	0.300	12/24/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/26/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	195	97.5	200	3.40	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	183	91.4	200	13.8	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 127 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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



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**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 02 0.5' (H247730-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/24/2024	ND	1.64	82.2	2.00	9.84	
Toluene*	<0.050	0.050	12/24/2024	ND	1.71	85.7	2.00	10.0	
Ethylbenzene*	<0.050	0.050	12/24/2024	ND	1.67	83.7	2.00	9.95	
Total Xylenes*	<0.150	0.150	12/24/2024	ND	4.91	81.8	6.00	9.91	
Total BTEX	<0.300	0.300	12/24/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	12/26/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	195	97.5	200	3.40	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	183	91.4	200	13.8	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
 TACOMA MORRISSEY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 03 0.5' (H247730-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/24/2024	ND	1.64	82.2	2.00	9.84	
Toluene*	<0.050	0.050	12/24/2024	ND	1.71	85.7	2.00	10.0	
Ethylbenzene*	<0.050	0.050	12/24/2024	ND	1.67	83.7	2.00	9.95	
Total Xylenes*	<0.150	0.150	12/24/2024	ND	4.91	81.8	6.00	9.91	
Total BTEX	<0.300	0.300	12/24/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16.0</b>	16.0	12/26/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	195	97.5	200	3.40	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	183	91.4	200	13.8	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 116 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
 TACOMA MORRISSEY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 04 0.5' (H247730-04)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/24/2024	ND	1.64	82.2	2.00	9.84	
Toluene*	<0.050	0.050	12/24/2024	ND	1.71	85.7	2.00	10.0	
Ethylbenzene*	<0.050	0.050	12/24/2024	ND	1.67	83.7	2.00	9.95	
Total Xylenes*	<0.150	0.150	12/24/2024	ND	4.91	81.8	6.00	9.91	
Total BTEX	<0.300	0.300	12/24/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/26/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	195	97.5	200	3.40	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	183	91.4	200	13.8	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 117 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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



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**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 05 0.5' (H247730-05)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/24/2024	ND	1.64	82.2	2.00	9.84	
Toluene*	<0.050	0.050	12/24/2024	ND	1.71	85.7	2.00	10.0	
Ethylbenzene*	<0.050	0.050	12/24/2024	ND	1.67	83.7	2.00	9.95	
Total Xylenes*	<0.150	0.150	12/24/2024	ND	4.91	81.8	6.00	9.91	
Total BTEX	<0.300	0.300	12/24/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16.0</b>	16.0	12/26/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	195	97.5	200	3.40	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	183	91.4	200	13.8	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.4 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
 TACOMA MORRISSEY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 06 0.5' (H247730-06)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/24/2024	ND	1.64	82.2	2.00	9.84	
Toluene*	<0.050	0.050	12/24/2024	ND	1.71	85.7	2.00	10.0	
Ethylbenzene*	<0.050	0.050	12/24/2024	ND	1.67	83.7	2.00	9.95	
Total Xylenes*	<0.150	0.150	12/24/2024	ND	4.91	81.8	6.00	9.91	
Total BTEX	<0.300	0.300	12/24/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/26/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	195	97.5	200	3.40	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	183	91.4	200	13.8	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.4 % 49.1-148

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



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**Analytical Results For:**

ENSOLUM  
 TACOMA MORRISSEY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 07 0.5' (H247730-07)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/24/2024	ND	1.64	82.2	2.00	9.84	
Toluene*	<0.050	0.050	12/24/2024	ND	1.71	85.7	2.00	10.0	
Ethylbenzene*	<0.050	0.050	12/24/2024	ND	1.67	83.7	2.00	9.95	
Total Xylenes*	<0.150	0.150	12/24/2024	ND	4.91	81.8	6.00	9.91	
Total BTEX	<0.300	0.300	12/24/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	12/26/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	195	97.5	200	3.40	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	183	91.4	200	13.8	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 131 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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



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**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 08 0.5' (H247730-08)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/24/2024	ND	1.64	82.2	2.00	9.84	
Toluene*	<0.050	0.050	12/24/2024	ND	1.71	85.7	2.00	10.0	
Ethylbenzene*	<0.050	0.050	12/24/2024	ND	1.67	83.7	2.00	9.95	
Total Xylenes*	<0.150	0.150	12/24/2024	ND	4.91	81.8	6.00	9.91	
Total BTEX	<0.300	0.300	12/24/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.1 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	12/26/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	195	97.5	200	3.40	
<b>DRO &gt;C10-C28*</b>	<b>72.9</b>	10.0	12/26/2024	ND	183	91.4	200	13.8	
<b>EXT DRO &gt;C28-C36</b>	<b>19.9</b>	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 122 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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



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**Analytical Results For:**

ENSOLUM  
 TACOMA MORRISSEY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 09 0.5' (H247730-09)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/24/2024	ND	1.64	82.2	2.00	9.84	
Toluene*	<0.050	0.050	12/24/2024	ND	1.71	85.7	2.00	10.0	
Ethylbenzene*	<0.050	0.050	12/24/2024	ND	1.67	83.7	2.00	9.95	
Total Xylenes*	<0.150	0.150	12/24/2024	ND	4.91	81.8	6.00	9.91	
Total BTEX	<0.300	0.300	12/24/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	12/26/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	195	97.5	200	3.40	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	183	91.4	200	13.8	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 130 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
 TACOMA MORRISSEY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 10 0.5' (H247730-10)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/24/2024	ND	1.64	82.2	2.00	9.84	
Toluene*	<0.050	0.050	12/24/2024	ND	1.71	85.7	2.00	10.0	
Ethylbenzene*	<0.050	0.050	12/24/2024	ND	1.67	83.7	2.00	9.95	
Total Xylenes*	<0.150	0.150	12/24/2024	ND	4.91	81.8	6.00	9.91	
Total BTEX	<0.300	0.300	12/24/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.7 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	768	16.0	12/26/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	195	97.5	200	3.40	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	183	91.4	200	13.8	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 119 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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\*=Accredited Analyte

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



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

**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 11 0.5' (H247730-11)**

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	12/24/2024	ND	1.64	82.2	2.00	9.84	
Toluene*	<0.050	0.050	12/24/2024	ND	1.71	85.7	2.00	10.0	
Ethylbenzene*	<0.050	0.050	12/24/2024	ND	1.67	83.7	2.00	9.95	
Total Xylenes*	<0.150	0.150	12/24/2024	ND	4.91	81.8	6.00	9.91	
Total BTEX	<0.300	0.300	12/24/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>160</b>	16.0	12/26/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	195	97.5	200	3.40	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	183	91.4	200	13.8	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 130 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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



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**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 12 0.5' (H247730-12)**

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	12/24/2024	ND	1.64	82.2	2.00	9.84	
Toluene*	<0.050	0.050	12/24/2024	ND	1.71	85.7	2.00	10.0	
Ethylbenzene*	<0.050	0.050	12/24/2024	ND	1.67	83.7	2.00	9.95	
Total Xylenes*	<0.150	0.150	12/24/2024	ND	4.91	81.8	6.00	9.91	
Total BTEX	<0.300	0.300	12/24/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>96.0</b>	16.0	12/26/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	205	102	200	2.88	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	169	84.4	200	6.14	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 87.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.7 % 49.1-148

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



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**Analytical Results For:**

ENSOLUM  
 TACOMA MORRISSEY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 13 0.5' (H247730-13)**

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	12/26/2024	ND	1.80	90.0	2.00	0.884	
Toluene*	<0.050	0.050	12/26/2024	ND	1.87	93.6	2.00	0.313	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	1.82	91.0	2.00	0.398	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	5.31	88.5	6.00	0.595	
Total BTEX	<0.300	0.300	12/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.5 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>64.0</b>	16.0	12/26/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	205	102	200	2.88	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	169	84.4	200	6.14	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 85.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 14 0.5' (H247730-14)**

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	12/26/2024	ND	1.80	90.0	2.00	0.884	
Toluene*	<0.050	0.050	12/26/2024	ND	1.87	93.6	2.00	0.313	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	1.82	91.0	2.00	0.398	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	5.31	88.5	6.00	0.595	
Total BTEX	<0.300	0.300	12/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	12/26/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	205	102	200	2.88	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	169	84.4	200	6.14	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 85.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.8 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 15 0.5' (H247730-15)**

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	12/26/2024	ND	1.80	90.0	2.00	0.884	
Toluene*	<0.050	0.050	12/26/2024	ND	1.87	93.6	2.00	0.313	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	1.82	91.0	2.00	0.398	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	5.31	88.5	6.00	0.595	
Total BTEX	<0.300	0.300	12/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.5 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>64.0</b>	16.0	12/26/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	205	102	200	2.88	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	169	84.4	200	6.14	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 123 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 16 0.5' (H247730-16)**

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	12/26/2024	ND	1.80	90.0	2.00	0.884	
Toluene*	<0.050	0.050	12/26/2024	ND	1.87	93.6	2.00	0.313	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	1.82	91.0	2.00	0.398	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	5.31	88.5	6.00	0.595	
Total BTEX	<0.300	0.300	12/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	12/26/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	205	102	200	2.88	
<b>DRO &gt;C10-C28*</b>	<b>670</b>	10.0	12/26/2024	ND	169	84.4	200	6.14	
<b>EXT DRO &gt;C28-C36</b>	<b>377</b>	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 135 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 17 0.5' (H247730-17)**

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	12/26/2024	ND	1.80	90.0	2.00	0.884	
Toluene*	<0.050	0.050	12/26/2024	ND	1.87	93.6	2.00	0.313	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	1.82	91.0	2.00	0.398	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	5.31	88.5	6.00	0.595	
Total BTEX	<0.300	0.300	12/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.7 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	12/26/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	205	102	200	2.88	
<b>DRO &gt;C10-C28*</b>	<b>612</b>	10.0	12/26/2024	ND	169	84.4	200	6.14	
<b>EXT DRO &gt;C28-C36</b>	<b>363</b>	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 99.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 127 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 18 0.5' (H247730-18)**

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	12/26/2024	ND	1.80	90.0	2.00	0.884	
Toluene*	<0.050	0.050	12/26/2024	ND	1.87	93.6	2.00	0.313	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	1.82	91.0	2.00	0.398	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	5.31	88.5	6.00	0.595	
Total BTEX	<0.300	0.300	12/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	12/26/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	205	102	200	2.88	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	169	84.4	200	6.14	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 91.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 19 0.5' (H247730-19)**

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	12/26/2024	ND	1.80	90.0	2.00	0.884	
Toluene*	<0.050	0.050	12/26/2024	ND	1.87	93.6	2.00	0.313	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	1.82	91.0	2.00	0.398	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	5.31	88.5	6.00	0.595	
Total BTEX	<0.300	0.300	12/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.7 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/26/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	205	102	200	2.88	
<b>DRO &gt;C10-C28*</b>	<b>670</b>	10.0	12/26/2024	ND	169	84.4	200	6.14	
<b>EXT DRO &gt;C28-C36</b>	<b>377</b>	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 98.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 20 0.5' (H247730-20)**

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	12/26/2024	ND	1.80	90.0	2.00	0.884		
Toluene*	<0.050	0.050	12/26/2024	ND	1.87	93.6	2.00	0.313		
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	1.82	91.0	2.00	0.398		
Total Xylenes*	<0.150	0.150	12/26/2024	ND	5.31	88.5	6.00	0.595		
Total BTEX	<0.300	0.300	12/26/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	12/26/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	205	102	200	2.88		
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	169	84.4	200	6.14		
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND						

Surrogate: 1-Chlorooctane 98.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
 TACOMA MORRISSEY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 21 0.5' (H247730-21)**

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	12/26/2024	ND	1.80	90.0	2.00	0.884	
Toluene*	<0.050	0.050	12/26/2024	ND	1.87	93.6	2.00	0.313	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	1.82	91.0	2.00	0.398	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	5.31	88.5	6.00	0.595	
Total BTEX	<0.300	0.300	12/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/26/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	205	102	200	2.88	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	169	84.4	200	6.14	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 87.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
 TACOMA MORRISSEY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 22 0.5' (H247730-22)**

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	12/26/2024	ND	1.80	90.0	2.00	0.884	
Toluene*	<0.050	0.050	12/26/2024	ND	1.87	93.6	2.00	0.313	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	1.82	91.0	2.00	0.398	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	5.31	88.5	6.00	0.595	
Total BTEX	<0.300	0.300	12/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>80.0</b>	16.0	12/26/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	205	102	200	2.88	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	169	84.4	200	6.14	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 85.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.0 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 23 0.5' (H247730-23)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/26/2024	ND	1.80	90.0	2.00	0.884	
Toluene*	<0.050	0.050	12/26/2024	ND	1.87	93.6	2.00	0.313	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	1.82	91.0	2.00	0.398	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	5.31	88.5	6.00	0.595	
Total BTEX	<0.300	0.300	12/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.7 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	12/26/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	205	102	200	2.88	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	169	84.4	200	6.14	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 24 0.5' (H247730-24)**

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	12/26/2024	ND	1.80	90.0	2.00	0.884	
Toluene*	<0.050	0.050	12/26/2024	ND	1.87	93.6	2.00	0.313	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	1.82	91.0	2.00	0.398	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	5.31	88.5	6.00	0.595	
Total BTEX	<0.300	0.300	12/26/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>64.0</b>	16.0	12/26/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	205	102	200	2.88	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	169	84.4	200	6.14	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 25 0.5' (H247730-25)**

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	12/26/2024	ND	1.80	90.0	2.00	0.884	
Toluene*	<0.050	0.050	12/26/2024	ND	1.87	93.6	2.00	0.313	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	1.82	91.0	2.00	0.398	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	5.31	88.5	6.00	0.595	
Total BTEX	<0.300	0.300	12/26/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>64.0</b>	16.0	12/26/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	205	102	200	2.88	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	169	84.4	200	6.14	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 125 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 26 0.5' (H247730-26)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/26/2024	ND	1.80	90.0	2.00	0.884	
Toluene*	<0.050	0.050	12/26/2024	ND	1.87	93.6	2.00	0.313	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	1.82	91.0	2.00	0.398	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	5.31	88.5	6.00	0.595	
Total BTEX	<0.300	0.300	12/26/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>64.0</b>	16.0	12/26/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	205	102	200	2.88	
<b>DRO &gt;C10-C28*</b>	<b>138</b>	10.0	12/26/2024	ND	169	84.4	200	6.14	
<b>EXT DRO &gt;C28-C36</b>	<b>74.5</b>	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 136 % 49.1-148

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



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**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 27 0.5' (H247730-27)**

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	12/26/2024	ND	1.80	90.0	2.00	0.884	
Toluene*	<0.050	0.050	12/26/2024	ND	1.87	93.6	2.00	0.313	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	1.82	91.0	2.00	0.398	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	5.31	88.5	6.00	0.595	
Total BTEX	<0.300	0.300	12/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	12/26/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	205	102	200	2.88	
<b>DRO &gt;C10-C28*</b>	<b>79.4</b>	10.0	12/26/2024	ND	169	84.4	200	6.14	
<b>EXT DRO &gt;C28-C36</b>	<b>34.9</b>	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 129 % 49.1-148

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\*=Accredited Analyte

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



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

**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 28 0.5' (H247730-28)**

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	12/26/2024	ND	1.80	90.0	2.00	0.884	
Toluene*	<0.050	0.050	12/26/2024	ND	1.87	93.6	2.00	0.313	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	1.82	91.0	2.00	0.398	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	5.31	88.5	6.00	0.595	
Total BTEX	<0.300	0.300	12/26/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	12/26/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	205	102	200	2.88	
<b>DRO &gt;C10-C28*</b>	<b>35.0</b>	10.0	12/26/2024	ND	169	84.4	200	6.14	
<b>EXT DRO &gt;C28-C36</b>	<b>18.3</b>	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
 TACOMA MORRISSEY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 29 0.5' (H247730-29)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/26/2024	ND	1.80	90.0	2.00	0.884	
Toluene*	<0.050	0.050	12/26/2024	ND	1.87	93.6	2.00	0.313	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	1.82	91.0	2.00	0.398	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	5.31	88.5	6.00	0.595	
Total BTEX	<0.300	0.300	12/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>64.0</b>	16.0	12/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	205	102	200	2.88	
<b>DRO &gt;C10-C28*</b>	<b>14.8</b>	10.0	12/26/2024	ND	169	84.4	200	6.14	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 130 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
 TACOMA MORRISSEY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 30 0.5' (H247730-30)**

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	12/26/2024	ND	1.80	90.0	2.00	0.884	
Toluene*	<0.050	0.050	12/26/2024	ND	1.87	93.6	2.00	0.313	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	1.82	91.0	2.00	0.398	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	5.31	88.5	6.00	0.595	
Total BTEX	<0.300	0.300	12/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	12/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	205	102	200	2.88	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	169	84.4	200	6.14	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 116 % 48.2-134

Surrogate: 1-Chlorooctadecane 133 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
 TACOMA MORRISSEY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 31 0.5' (H247730-31)**

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	12/26/2024	ND	1.80	90.0	2.00	0.884	
Toluene*	<0.050	0.050	12/26/2024	ND	1.87	93.6	2.00	0.313	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	1.82	91.0	2.00	0.398	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	5.31	88.5	6.00	0.595	
Total BTEX	<0.300	0.300	12/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	205	102	200	2.88	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	169	84.4	200	6.14	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 128 % 49.1-148

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



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**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/19/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 32 0.5' (H247730-32)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/26/2024	ND	1.80	90.0	2.00	0.884	
Toluene*	<0.050	0.050	12/26/2024	ND	1.87	93.6	2.00	0.313	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	1.82	91.0	2.00	0.398	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	5.31	88.5	6.00	0.595	
Total BTEX	<0.300	0.300	12/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	202	101	200	0.0906	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	187	93.4	200	0.730	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 130 % 48.2-134

Surrogate: 1-Chlorooctadecane 130 % 49.1-148

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



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**Analytical Results For:**

ENSOLUM  
 TACOMA MORRISSEY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	12/20/2024	Sampling Date:	12/20/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 33 0.5' (H247730-33)**

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	12/26/2024	ND	2.08	104	2.00	0.0663	
Toluene*	<0.050	0.050	12/26/2024	ND	2.09	104	2.00	0.0474	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	2.00	100	2.00	0.151	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	6.40	107	6.00	0.539	
Total BTEX	<0.300	0.300	12/26/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	12/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	202	101	200	0.0906	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	187	93.4	200	0.730	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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



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**Analytical Results For:**

ENSOLUM  
 TACOMA MORRISSEY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	12/20/2024	Sampling Date:	12/20/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 34 0.5' (H247730-34)**

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	12/26/2024	ND	2.08	104	2.00	0.0663	
Toluene*	<0.050	0.050	12/26/2024	ND	2.09	104	2.00	0.0474	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	2.00	100	2.00	0.151	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	6.40	107	6.00	0.539	
Total BTEX	<0.300	0.300	12/26/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	202	101	200	0.0906	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	187	93.4	200	0.730	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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



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**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/20/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 35 0.5' (H247730-35)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/26/2024	ND	2.08	104	2.00	0.0663	
Toluene*	<0.050	0.050	12/26/2024	ND	2.09	104	2.00	0.0474	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	2.00	100	2.00	0.151	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	6.40	107	6.00	0.539	
Total BTEX	<0.300	0.300	12/26/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>80.0</b>	16.0	12/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	202	101	200	0.0906	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	187	93.4	200	0.730	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 96.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.9 % 49.1-148

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



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

**Analytical Results For:**

ENSOLUM  
 TACOMA MORRISSEY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	12/20/2024	Sampling Date:	12/20/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 36 0.5' (H247730-36)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/26/2024	ND	2.08	104	2.00	0.0663	
Toluene*	<0.050	0.050	12/26/2024	ND	2.09	104	2.00	0.0474	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	2.00	100	2.00	0.151	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	6.40	107	6.00	0.539	
Total BTEX	<0.300	0.300	12/26/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	12/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	202	101	200	0.0906	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	187	93.4	200	0.730	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 119 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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



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**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/20/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 37 0.5' (H247730-37)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/26/2024	ND	2.08	104	2.00	0.0663	
Toluene*	<0.050	0.050	12/26/2024	ND	2.09	104	2.00	0.0474	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	2.00	100	2.00	0.151	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	6.40	107	6.00	0.539	
Total BTEX	<0.300	0.300	12/26/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	12/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	202	101	200	0.0906	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	187	93.4	200	0.730	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 118 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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



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**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/20/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 38 0.5' (H247730-38)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/26/2024	ND	2.08	104	2.00	0.0663	
Toluene*	<0.050	0.050	12/26/2024	ND	2.09	104	2.00	0.0474	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	2.00	100	2.00	0.151	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	6.40	107	6.00	0.539	
Total BTEX	<0.300	0.300	12/26/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	12/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	202	101	200	0.0906	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	187	93.4	200	0.730	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 127 % 48.2-134

Surrogate: 1-Chlorooctadecane 127 % 49.1-148

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



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**Analytical Results For:**

ENSOLUM  
TACOMA MORRISSEY  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220  
Fax To:

Received:	12/20/2024	Sampling Date:	12/20/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 39 0.5' (H247730-39)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/26/2024	ND	2.08	104	2.00	0.0663	
Toluene*	<0.050	0.050	12/26/2024	ND	2.09	104	2.00	0.0474	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	2.00	100	2.00	0.151	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	6.40	107	6.00	0.539	
Total BTEX	<0.300	0.300	12/26/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	12/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	202	101	200	0.0906	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	187	93.4	200	0.730	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 118 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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**Analytical Results For:**

ENSOLUM  
 TACOMA MORRISSEY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	12/20/2024	Sampling Date:	12/20/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 40 0.5' (H247730-40)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/26/2024	ND	2.08	104	2.00	0.0663	
Toluene*	<0.050	0.050	12/26/2024	ND	2.09	104	2.00	0.0474	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	2.00	100	2.00	0.151	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	6.40	107	6.00	0.539	
Total BTEX	<0.300	0.300	12/26/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	202	101	200	0.0906	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	187	93.4	200	0.730	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 127 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

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**Analytical Results For:**

ENSOLUM  
 TACOMA MORRISSEY  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	12/20/2024	Sampling Date:	12/20/2024
Reported:	12/30/2024	Sampling Type:	Soil
Project Name:	PLU 342	Sampling Condition:	Cool & Intact
Project Number:	03C1558506	Sample Received By:	Tamara Oldaker
Project Location:	XTO - 32.204208-103.862151		

**Sample ID: CS 41 0.5' (H247730-41)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/26/2024	ND	2.08	104	2.00	0.0663	
Toluene*	<0.050	0.050	12/26/2024	ND	2.09	104	2.00	0.0474	
Ethylbenzene*	<0.050	0.050	12/26/2024	ND	2.00	100	2.00	0.151	
Total Xylenes*	<0.150	0.150	12/26/2024	ND	6.40	107	6.00	0.539	
Total BTEX	<0.300	0.300	12/26/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	12/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/26/2024	ND	202	101	200	0.0906	
DRO >C10-C28*	<10.0	10.0	12/26/2024	ND	187	93.4	200	0.730	
EXT DRO >C28-C36	<10.0	10.0	12/26/2024	ND					

Surrogate: 1-Chlorooctane 120 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

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



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Notes and Definitions

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

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 5

BILL TO

ANALYSIS REQUEST

Company Name: Ensolum, LLC  
 Project Manager: *TUCUMA MORRISSEY*  
 Address: 3122 National Parks Hwy  
 City: Carlsbad State: NM Zip: 88220  
 Phone #: 331 251 8307 Fax #: \_\_\_\_\_  
 Project #: 0301598 506 Project Owner: XTO  
 Project Name: PLU 342  
 Project Location: 32.204208, -103.862151  
 Sampler Name: Joshua Boxley

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	MATRIX						DATE	TIME	Chlorides	TPH	BTX		
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :						ACID/BASE:	ICE / COOL
<i>H247730</i>	C501	0.5	0	1													
	C502																
	C503																
	C504																
	C505																
	C506																
	C507																
	C508																
	C509																
	C510	0.5															

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Relinquished By: *[Signature]* Date: *12-20-24* Time: *11:20*  
 Received By: *[Signature]* Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Delivered By: (Circle One) Observed Temp. °C *4.4* Sample Condition Cool Intact  Yes  No  
 Corrected Temp. °C *3.8* Checked By: *[Signature]* (Initials)  
 Sampler - UPS - Bus - Other: \_\_\_\_\_



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2 of 5

BILL TO

ANALYSIS REQUEST

Company Name: Ensolum, LLC  
 Project Manager: *Tacoma Morrissey*  
 Address: 3122 National Parks Hwy  
 City: Carlsbad State: NM Zip: 88220  
 Phone #: 337 251 8307 Fax #:  
 Project #: 03C1554506 Project Owner: XTO  
 Project Name: PLU 342  
 Project Location: 32.204208, -103.862151  
 Sampler Name: Joshua Boxley

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	MATRIX						DATE	TIME	Chlorides	TPH	BTX
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
<i>A247730</i>															
11	CS11	0.5	C	1								12/9/24	1210		
12	CS12											12/9/24	1215		
13	CS13											12/9/24	1230		
14	CS14											12/9/24	1235		
15	CS15											12/9/24	1240		
14	CS16											12/9/24	1245		
17	CS17											12/9/24	1310		
18	CS16											12/9/24	1315		
19	CS19											12/9/24	1320		
20	CS20	0.5	C	1								12/9/24	1325		

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Relinquished By: *[Signature]* Date: *12-20-24* Received By: *[Signature]*  
 Time: *11:20*  
 Date: *12-20-24* Received By: *[Signature]*  
 Time: *11:20*

Delivered By: (Circle One) Observed Temp. °C *4.4* Sample Condition Cool Intact  Yes  No  
 Corrected Temp. °C *3.8* Bacteria (only) Sample Condition Cool Intact  Yes  No  
 Corrected Temp. °C *3.8*

REMARKS: *APP 2407438506*  
 Incident: *1139421001*  
 Cost Center: *1139421001*  
 Turnaround Time: *5 day* Standard  Rush   
 Thermometer ID: *#1140*  
 Correction Factor: *-0.5°C*  
 Verbal Result:  Yes  No Add'l Phone #:  
 All Results are emailed. Please provide Email address: *@ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com*



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

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

*385*

**BILL TO**

**ANALYSIS REQUEST**

Company Name: Ensolum, LLC

Project Manager: *Tecoma Morrissey*

Address: 3172 National Highway Parts Hwy  
 City: Midland, Carlsbad State: TX Zip: 79720

Phone #: 337257 8307 Fax #:

Project #: 03C1558506 Project Owner: XTO

Project Name: PLV 342

Project Location: 32.204208, -103.862151

Sampler Name: *Tecoma Morrissey*

FOR LAB USE ONLY

P.O. #: Company: XTO Energy Inc  
 Attn: *Celvin Brown*  
 Address: 3101 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	MATRIX						DATE	TIME	ANALYSIS REQUEST
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :			
<i>H247730</i>	<i>C521</i>	<i>0.5</i>	<i>C</i>	<i>1</i>							<i>12/10/24</i>	<i>1346</i>	<i>Chlorides</i>
<i>31</i>	<i>C522</i>										<i>1345</i>		<i>TPH</i>
<i>32</i>	<i>C523</i>										<i>1350</i>		<i>BTEX</i>
<i>33</i>	<i>C524</i>										<i>1355</i>		
<i>34</i>	<i>C525</i>										<i>1410</i>		
<i>35</i>	<i>C526</i>										<i>1415</i>		
<i>36</i>	<i>C527</i>										<i>1420</i>		
<i>37</i>	<i>C528</i>										<i>1425</i>		
<i>38</i>	<i>C529</i>										<i>1435</i>		
<i>39</i>	<i>C530</i>										<i>1440</i>		

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Relinquished By: *[Signature]* Date: *12-20-24* Time: *11:30*

Received By: *[Signature]* Date: *12-20-24* Time: *11:30*

Remarks: *inadequate NAPP 240714 346506 CC-1139421001*

Delivered By: (Circle One) Observed Temp. °C *4.4* Sample Condition Cool Intact  Yes  No

Sampler - UPS - Bus - Other: Corrected Temp. °C *3.8* Sample Condition Cool Intact  Yes  No

Checked By: *[Signature]*

Turnaround Time:  Standard  Rush

Thermometer ID #448 #PHB

Correction Factor -0.5°C TO -1.2/20/24

Bacteria (only) Sample Condition Cool Intact  Yes  No

Corrected Temp. °C



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

4 of 5

**BILL TO**

**ANALYSIS REQUEST**

Company Name: Ensolum, LLC  
 Project Manager: Tawana Morrissey  
 Address: 3122 National Parks Hwy  
 City: Midland-Girlsband State: TX Zip: 79722  
 Phone #: 337 257 8307 Fax #:   
 Project #: 03C1558506 Project Owner: KFO  
 Project Name: PLU 342  
 Project Location: 32.204208 -103.862151  
 Sampler Name: Joshua Boyley  
 P.O. #:   
 Company: TIO Energy Inc  
 Attn: Colton Brown  
 Address: 3104 E. Green St  
 City: Girlsband  
 State: NM Zip: 88220  
 Phone #:   
 Fax #:

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS REQUEST	
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :				ACID/BASE:
H247730	31	0.5	CI								12.19.24	1445	CHLORIDES	
	32	0.5	CI								12.10.24	1500		
	33	0.5	CI								12.20.24	0755		
	34	0.5	CI								0800			
	35	0.5	CI								0805			
	36	0.5	CI								0810			
	37	0.5	CI								0810			
	38	0.5	CI								0830			
	39	0.5	CI								0835			
	40	0.5	CI								12.20.24	0840		

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Relinquished By: *[Signature]*  
 Date: 12-20-24  
 Time: 11:20  
 Received By: *[Signature]*  
 Date:   
 Time:   
 Received By: *[Signature]*

Delivered By: (Circle One) Observed Temp. °C: 4.4  
 Corrected Temp. °C: 3.8  
 Sample Condition:  Intact  Cool  Yes  No  
 Checked By: *[Signature]*  
 Turnaround Time: Standard  Rush   
 Thermometer ID: #113-#140  
 Corrected Factor: -0.5°C  
 Bacteria (only) Sample Condition:  Intact  Cool  Yes  No  
 Corrected Temp. °C:   
 Remarks: *[Handwritten notes]*  
 Verbal Result:  Yes  No Add'l Phone #:   
 All Results are emailed. Please provide Email address: *[Email address]*





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

February 06, 2025

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

RE: PLU 342

Enclosed are the results of analyses for samples received by the laboratory on 02/03/25 12:00.

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/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B      Total Coliform and E. coli (Colilert MMO-MUG)  
Method EPA 524.2      Regulated VOCs and Total Trihalomethanes (TTHM)  
Method EPA 552.2      Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene  
Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: PLU 342 Project Number: 03C1558506 Project Manager: BEN BELILL Fax To:	Reported: 06-Feb-25 17:28
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Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FS 01 7'	H250600-01	Soil	27-Jan-25 09:55	03-Feb-25 12:00
CS 16 0.5	H250600-02	Soil	28-Jan-25 12:55	03-Feb-25 12:00
CS 19 0.5	H250600-03	Soil	28-Jan-25 13:21	03-Feb-25 12:00
FS 02 1.5	H250600-04	Soil	28-Jan-25 13:05	03-Feb-25 12:00
FS 03 1.5	H250600-05	Soil	29-Jan-25 09:40	03-Feb-25 12:00
FS 04 1.5	H250600-06	Soil	29-Jan-25 09:38	03-Feb-25 12:00
SW 02 0-1.5	H250600-07	Soil	29-Jan-25 10:25	03-Feb-25 12:00
CS 42 0.5	H250600-08	Soil	29-Jan-25 10:12	03-Feb-25 12:00
SW 03 0-1.5	H250600-09	Soil	29-Jan-25 10:32	03-Feb-25 12:00
SW 04 0-1.5	H250600-10	Soil	29-Jan-25 10:39	03-Feb-25 12:00
SW 01 0-4	H250600-11	Soil	29-Jan-25 15:05	03-Feb-25 12:00
SW 05 4-7	H250600-12	Soil	29-Jan-25 14:05	03-Feb-25 12:00

02/06/25 - Client changed some of the sample IDs (see COC). This is the revised report and will replace the one sent on 02/04/25.

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\*=Accredited Analyte

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**Analytical Results For:**

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: PLU 342 Project Number: 03C1558506 Project Manager: BEN BELILL Fax To:	Reported: 06-Feb-25 17:28
--	--	------------------------------

**FS 01 7'**  
**H250600-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>432</b>		16.0	mg/kg	4	5020341	AC	03-Feb-25	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5020329	JH	03-Feb-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			111 %		71.5-134	5020329	JH	03-Feb-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	

Surrogate: 1-Chlorooctane			89.5 %		48.2-134	5020321	MS	03-Feb-25	8015B	
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Surrogate: 1-Chlorooctadecane			87.9 %		49.1-148	5020321	MS	03-Feb-25	8015B	
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**Analytical Results For:**

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: PLU 342 Project Number: 03C1558506 Project Manager: BEN BELILL Fax To:	Reported: 06-Feb-25 17:28
--	--	------------------------------

**CS 16 0.5  
H250600-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	352		16.0	mg/kg	4	5020341	AC	03-Feb-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5020329	JH	03-Feb-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			109 %	71.5-134		5020329	JH	03-Feb-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	

Surrogate: 1-Chlorooctane			87.1 %	48.2-134		5020321	MS	03-Feb-25	8015B	
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Surrogate: 1-Chlorooctadecane			85.6 %	49.1-148		5020321	MS	03-Feb-25	8015B	
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**Analytical Results For:**

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: PLU 342 Project Number: 03C1558506 Project Manager: BEN BELILL Fax To:	Reported: 06-Feb-25 17:28
--	--	------------------------------

**CS 19 0.5  
H250600-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	176		16.0	mg/kg	4	5020341	AC	03-Feb-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5020329	JH	03-Feb-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			112 %		71.5-134	5020329	JH	03-Feb-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	

Surrogate: 1-Chlorooctane			85.6 %		48.2-134	5020321	MS	03-Feb-25	8015B	
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Surrogate: 1-Chlorooctadecane			84.5 %		49.1-148	5020321	MS	03-Feb-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: PLU 342 Project Number: 03C1558506 Project Manager: BEN BELILL Fax To:	Reported: 06-Feb-25 17:28
--	--	------------------------------

**FS 02 1.5  
H250600-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	304		16.0	mg/kg	4	5020341	AC	03-Feb-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5020329	JH	03-Feb-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			110 %		71.5-134	5020329	JH	03-Feb-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	

Surrogate: 1-Chlorooctane			68.7 %		48.2-134	5020321	MS	03-Feb-25	8015B	
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Surrogate: 1-Chlorooctadecane			66.9 %		49.1-148	5020321	MS	03-Feb-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: PLU 342 Project Number: 03C1558506 Project Manager: BEN BELILL Fax To:	Reported: 06-Feb-25 17:28
--	--	------------------------------

**FS 03 1.5  
H250600-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>96.0</b>		16.0	mg/kg	4	5020341	AC	03-Feb-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5020329	JH	03-Feb-25	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			110 %	71.5-134		5020329	JH	03-Feb-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	

<i>Surrogate: 1-Chlorooctane</i>			86.7 %	48.2-134		5020321	MS	03-Feb-25	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			85.3 %	49.1-148		5020321	MS	03-Feb-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: PLU 342 Project Number: 03C1558506 Project Manager: BEN BELILL Fax To:	Reported: 06-Feb-25 17:28
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**FS 04 1.5  
H250600-06 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	112		16.0	mg/kg	4	5020341	AC	03-Feb-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5020329	JH	03-Feb-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			111 %		71.5-134	5020329	JH	03-Feb-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	

Surrogate: 1-Chlorooctane			82.6 %		48.2-134	5020321	MS	03-Feb-25	8015B	
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Surrogate: 1-Chlorooctadecane			80.2 %		49.1-148	5020321	MS	03-Feb-25	8015B	
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**Analytical Results For:**

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: PLU 342 Project Number: 03C1558506 Project Manager: BEN BELILL Fax To:	Reported: 06-Feb-25 17:28
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**SW 02 0-1.5  
H250600-07 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	400		16.0	mg/kg	4	5020341	AC	03-Feb-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5020329	JH	03-Feb-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			109 %	71.5-134		5020329	JH	03-Feb-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	

Surrogate: 1-Chlorooctane			73.1 %	48.2-134		5020321	MS	03-Feb-25	8015B	
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Surrogate: 1-Chlorooctadecane			70.7 %	49.1-148		5020321	MS	03-Feb-25	8015B	
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**Analytical Results For:**

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: PLU 342 Project Number: 03C1558506 Project Manager: BEN BELILL Fax To:	Reported: 06-Feb-25 17:28
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**CS 42 0.5  
H250600-08 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>160</b>		16.0	mg/kg	4	5020341	AC	03-Feb-25	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5020329	JH	03-Feb-25	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			109 %		71.5-134	5020329	JH	03-Feb-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	

<i>Surrogate: 1-Chlorooctane</i>			82.3 %		48.2-134	5020321	MS	03-Feb-25	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			78.4 %		49.1-148	5020321	MS	03-Feb-25	8015B	
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**Analytical Results For:**

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: PLU 342 Project Number: 03C1558506 Project Manager: BEN BELILL Fax To:	Reported: 06-Feb-25 17:28
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**SW 03 0-1.5  
H250600-09 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	32.0		16.0	mg/kg	4	5020341	AC	03-Feb-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5020329	JH	03-Feb-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5020329	JH	03-Feb-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			111 %		71.5-134	5020329	JH	03-Feb-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5020321	MS	03-Feb-25	8015B	

Surrogate: 1-Chlorooctane			85.9 %		48.2-134	5020321	MS	03-Feb-25	8015B	
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Surrogate: 1-Chlorooctadecane			82.4 %		49.1-148	5020321	MS	03-Feb-25	8015B	
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**Analytical Results For:**

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: PLU 342 Project Number: 03C1558506 Project Manager: BEN BELILL Fax To:	Reported: 06-Feb-25 17:28
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**SW 04 0-1.5  
H250600-10 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	128		16.0	mg/kg	4	5020341	AC	03-Feb-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5020330	JH	03-Feb-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5020330	JH	03-Feb-25	8021B	QR-03
Ethylbenzene*	<0.050		0.050	mg/kg	50	5020330	JH	03-Feb-25	8021B	QR-03
Total Xylenes*	<0.150		0.150	mg/kg	50	5020330	JH	03-Feb-25	8021B	QR-03
Total BTEX	<0.300		0.300	mg/kg	50	5020330	JH	03-Feb-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			120 %		71.5-134	5020330	JH	03-Feb-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5020322	MS	03-Feb-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5020322	MS	03-Feb-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5020322	MS	03-Feb-25	8015B	

Surrogate: 1-Chlorooctane			88.5 %		48.2-134	5020322	MS	03-Feb-25	8015B	
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Surrogate: 1-Chlorooctadecane			87.4 %		49.1-148	5020322	MS	03-Feb-25	8015B	
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**Analytical Results For:**

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: PLU 342 Project Number: 03C1558506 Project Manager: BEN BELILL Fax To:	Reported: 06-Feb-25 17:28
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**SW 01 0-4  
H250600-11 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	464		16.0	mg/kg	4	5020341	AC	03-Feb-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5020330	JH	03-Feb-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5020330	JH	03-Feb-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5020330	JH	03-Feb-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5020330	JH	03-Feb-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5020330	JH	03-Feb-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			121 %		71.5-134	5020330	JH	03-Feb-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5020322	MS	03-Feb-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5020322	MS	03-Feb-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5020322	MS	03-Feb-25	8015B	

Surrogate: 1-Chlorooctane			81.7 %		48.2-134	5020322	MS	03-Feb-25	8015B	
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Surrogate: 1-Chlorooctadecane			80.3 %		49.1-148	5020322	MS	03-Feb-25	8015B	
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**Analytical Results For:**

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: PLU 342 Project Number: 03C1558506 Project Manager: BEN BELILL Fax To:	Reported: 06-Feb-25 17:28
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**SW 05 4-7  
H250600-12 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>640</b>		16.0	mg/kg	4	5020341	AC	03-Feb-25	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5020330	JH	03-Feb-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5020330	JH	03-Feb-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5020330	JH	03-Feb-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5020330	JH	03-Feb-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5020330	JH	03-Feb-25	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			115 %		71.5-134	5020330	JH	03-Feb-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5020322	MS	03-Feb-25	8015B	
<b>DRO &gt;C10-C28*</b>	<b>10.3</b>		10.0	mg/kg	1	5020322	MS	03-Feb-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5020322	MS	03-Feb-25	8015B	

<i>Surrogate: 1-Chlorooctane</i>			74.8 %		48.2-134	5020322	MS	03-Feb-25	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			74.5 %		49.1-148	5020322	MS	03-Feb-25	8015B	
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**Analytical Results For:**

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: PLU 342 Project Number: 03C1558506 Project Manager: BEN BELILL Fax To:	Reported: 06-Feb-25 17:28
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**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 5020341 - 1:4 DI Water</b>										
<b>Blank (5020341-BLK1)</b>										
Prepared & Analyzed: 03-Feb-25										
Chloride	ND	16.0	mg/kg							
<b>LCS (5020341-BS1)</b>										
Prepared & Analyzed: 03-Feb-25										
Chloride	416	16.0	mg/kg	400		104	80-120			
<b>LCS Dup (5020341-BSD1)</b>										
Prepared & Analyzed: 03-Feb-25										
Chloride	416	16.0	mg/kg	400		104	80-120	0.00	20	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: PLU 342 Project Number: 03C1558506 Project Manager: BEN BELILL Fax To:	Reported: 06-Feb-25 17:28
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**Volatile Organic Compounds by EPA Method 8021 - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5020329 - Volatiles**

**Blank (5020329-BLK1)**

Prepared & Analyzed: 03-Feb-25

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0547		mg/kg	0.0500		109	71.5-134			

**LCS (5020329-BS1)**

Prepared & Analyzed: 03-Feb-25

Benzene	1.97	0.050	mg/kg	2.00		98.4	82.8-130			
Toluene	1.99	0.050	mg/kg	2.00		99.4	86-128			
Ethylbenzene	1.99	0.050	mg/kg	2.00		99.5	85.9-128			
m,p-Xylene	4.13	0.100	mg/kg	4.00		103	89-129			
o-Xylene	1.93	0.050	mg/kg	2.00		96.4	86.1-125			
Total Xylenes	6.06	0.150	mg/kg	6.00		101	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	0.0507		mg/kg	0.0500		101	71.5-134			

**LCS Dup (5020329-BS1)**

Prepared & Analyzed: 03-Feb-25

Benzene	2.09	0.050	mg/kg	2.00		105	82.8-130	6.16	15.8	
Toluene	2.14	0.050	mg/kg	2.00		107	86-128	7.36	15.9	
Ethylbenzene	2.15	0.050	mg/kg	2.00		108	85.9-128	7.77	16	
m,p-Xylene	4.47	0.100	mg/kg	4.00		112	89-129	7.82	16.2	
o-Xylene	2.09	0.050	mg/kg	2.00		104	86.1-125	7.95	16.7	
Total Xylenes	6.56	0.150	mg/kg	6.00		109	88.2-128	7.86	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0520		mg/kg	0.0500		104	71.5-134			

**Batch 5020330 - Volatiles**

**Blank (5020330-BLK1)**

Prepared & Analyzed: 03-Feb-25

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							

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**Analytical Results For:**

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

Project: PLU 342  
Project Number: 03C1558506  
Project Manager: BEN BELILL  
Fax To:

Reported:  
06-Feb-25 17:28

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5020330 - Volatiles****Blank (5020330-BLK1)**

Prepared &amp; Analyzed: 03-Feb-25

Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0579		mg/kg	0.0500		116	71.5-134			

**LCS (5020330-BS1)**

Prepared &amp; Analyzed: 03-Feb-25

Benzene	2.20	0.050	mg/kg	2.00		110	82.8-130			
Toluene	2.37	0.050	mg/kg	2.00		118	86-128			
Ethylbenzene	2.41	0.050	mg/kg	2.00		120	85.9-128			
m,p-Xylene	4.70	0.100	mg/kg	4.00		118	89-129			
o-Xylene	2.41	0.050	mg/kg	2.00		121	86.1-125			
Total Xylenes	7.11	0.150	mg/kg	6.00		119	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	0.0545		mg/kg	0.0500		109	71.5-134			

**LCS Dup (5020330-BSD1)**

Prepared &amp; Analyzed: 03-Feb-25

Benzene	2.22	0.050	mg/kg	2.00		111	82.8-130	0.830	15.8	
Toluene	2.36	0.050	mg/kg	2.00		118	86-128	0.0927	15.9	
Ethylbenzene	2.40	0.050	mg/kg	2.00		120	85.9-128	0.409	16	
m,p-Xylene	4.68	0.100	mg/kg	4.00		117	89-129	0.411	16.2	
o-Xylene	2.41	0.050	mg/kg	2.00		120	86.1-125	0.239	16.7	
Total Xylenes	7.09	0.150	mg/kg	6.00		118	88.2-128	0.353	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0544		mg/kg	0.0500		109	71.5-134			

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**Analytical Results For:**

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: PLU 342 Project Number: 03C1558506 Project Manager: BEN BELILL Fax To:	Reported: 06-Feb-25 17:28
--	--	------------------------------

**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5020321 - General Prep - Organics**

<b>Blank (5020321-BLK1)</b>		Prepared & Analyzed: 03-Feb-25								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	54.5		mg/kg	50.0		109	48.2-134			
Surrogate: 1-Chlorooctadecane	54.6		mg/kg	50.0		109	49.1-148			

<b>LCS (5020321-BS1)</b>		Prepared & Analyzed: 03-Feb-25								
GRO C6-C10	207	10.0	mg/kg	200		104	81.5-123			
DRO >C10-C28	196	10.0	mg/kg	200		98.1	77.7-122			
Total TPH C6-C28	404	10.0	mg/kg	400		101	80.9-121			
Surrogate: 1-Chlorooctane	54.8		mg/kg	50.0		110	48.2-134			
Surrogate: 1-Chlorooctadecane	53.4		mg/kg	50.0		107	49.1-148			

<b>LCS Dup (5020321-BS1)</b>		Prepared & Analyzed: 03-Feb-25								
GRO C6-C10	210	10.0	mg/kg	200		105	81.5-123	1.13	13	
DRO >C10-C28	197	10.0	mg/kg	200		98.3	77.7-122	0.194	15.6	
Total TPH C6-C28	406	10.0	mg/kg	400		102	80.9-121	0.677	18.5	
Surrogate: 1-Chlorooctane	56.1		mg/kg	50.0		112	48.2-134			
Surrogate: 1-Chlorooctadecane	55.1		mg/kg	50.0		110	49.1-148			

**Batch 5020322 - General Prep - Organics**

<b>Blank (5020322-BLK1)</b>		Prepared & Analyzed: 03-Feb-25								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	54.7		mg/kg	50.0		109	48.2-134			
Surrogate: 1-Chlorooctadecane	56.5		mg/kg	50.0		113	49.1-148			

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**Analytical Results For:**

ENSOLUM, LLC 705 W WADLEY AVE. MIDLAND TX, 79705	Project: PLU 342 Project Number: 03C1558506 Project Manager: BEN BELILL Fax To:	Reported: 06-Feb-25 17:28
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**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5020322 - General Prep - Organics**

<b>LCS (5020322-BS1)</b>		Prepared & Analyzed: 03-Feb-25								
GRO C6-C10	209	10.0	mg/kg	200		104	81.5-123			
DRO >C10-C28	205	10.0	mg/kg	200		103	77.7-122			
Total TPH C6-C28	414	10.0	mg/kg	400		104	80.9-121			
Surrogate: 1-Chlorooctane	56.2		mg/kg	50.0		112	48.2-134			
Surrogate: 1-Chlorooctadecane	56.2		mg/kg	50.0		112	49.1-148			

<b>LCS Dup (5020322-BSD1)</b>		Prepared & Analyzed: 03-Feb-25								
GRO C6-C10	208	10.0	mg/kg	200		104	81.5-123	0.574	13	
DRO >C10-C28	204	10.0	mg/kg	200		102	77.7-122	0.479	15.6	
Total TPH C6-C28	412	10.0	mg/kg	400		103	80.9-121	0.527	18.5	
Surrogate: 1-Chlorooctane	57.1		mg/kg	50.0		114	48.2-134			
Surrogate: 1-Chlorooctadecane	57.7		mg/kg	50.0		115	49.1-148			

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Notes and Definitions

- QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCS/D recovery and/or RPD values.
- 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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*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

BILL TO

ANALYSIS REQUEST

Company Name: Ensolum, LLC  
Project Manager: Ben Bell  
Address: 601 N Marland Street, Suite 400  
City: Midland State: TX Zip: 79701  
Phone #: 989-854-0852 Fax #: 989-854-0852  
Project #: 03C1558506 Project Owner: XTO Energy  
Project Name: PLU 342  
Project Location: 32.204208, -103.862151  
Sampler Name: Even Ree

P.O. #:   
Company: XTO Energy, Inc  
Attn: Colton Brown  
Address: 3104 E Greene St  
City: Carlsbad State: NM Zip: 88220  
Phone #:   
Fax #:   
PRESERV:   
SAMPLING:   
FOR LAB USE ONLY

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	TPH 8015	BTEX 8021	Chloride 4500
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
H250600	FS01	7'	C 1	1							1/27/15	955	✓	✓	✓
	FS02	0.5	C 1	1							1/28/15	1255	✓	✓	✓
	FS01	0.5	C 1	1							1/28/15	1321	✓	✓	✓
	FS02	1.5	C 1	1							1/28/15	1305	✓	✓	✓
	FS03	1.5	C 1	1							1/28/15	940	✓	✓	✓
	FS04	1.5	C 1	1							1/28/15	938	✓	✓	✓
	SV02	0-1.5	C 1	1							1/29/15	1025	✓	✓	✓
	SV03	0.5	C 1	1							1/29/15	1012	✓	✓	✓
	SV03	0-1.5	C 1	1							1/29/15	1032	✓	✓	✓
	SV04	0-1.5	C 1	1							1/29/15	1039	✓	✓	✓

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Relinquished By: Even Ree  
Date: 2-3-25  
Received By: *[Signature]*  
Date: 2-3-25  
Time: 1:00  
Remarks: *Customer requested IP changes to 2/6/25*

Delivered By: (Circle One) Observed Temp. °C 1.3  
Corrected Temp. °C 1.6  
Sample Condition Cool Intact  Yes  No  
Checked By: *[Signature]*  
Turnaround Time: Standard  Rush   
Thermometer ID: *4115 #140*  
Correction Factor: *0.325 hr*  
Bacteria (only) Sample Condition Cool Intact  Yes  No  
Corrected Temp. °C

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



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

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

Company Name: Ensolum, LLC

**BILL TO**

**ANALYSIS REQUEST**

Project Manager: *Ben Bell*

P.O. #: \_\_\_\_\_  
 Company: XTO Energy, Inc

Address: 601 N Marientfeld Street, Suite 400

Attn: Colton Brown

City: Midland State: TX Zip: 79701

Address: 3104 E Greene St

Phone #: 994-854-0654 Fax #: \_\_\_\_\_

City: Carlsbad

Project #: 03615580506 Project Owner: XTO Energy

State: NM Zip: 88220

Project Name: *PLU 342*

Phone #: \_\_\_\_\_

Project Location: *32,204208, -108.862151*

Fax #: \_\_\_\_\_

Sampler Name: *Even Row*

PRESERV:  OTHER: \_\_\_\_\_

FOR LAB USE ONLY

**MATRIX**

**PRESERV**

**SAMPLING**

Lab I.D. Sample I.D. Depth (feet)

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	TPH 8015	BTEX 8021	Chloride 4500
<i>H250400</i>	<i>SV01</i>	<i>0-4</i>	<i>C</i>	<i>1</i>			<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>		<i>1/29/15</i>	<i>1505</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>11</i>	<i>5W05</i>	<i>4-7</i>	<i>C</i>	<i>1</i>			<input checked="" type="checkbox"/>							<i>1/29/15</i>	<i>1405</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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Relinquished By: *Even Row*

Date: *3-3-25*

Received By: *Morrissey*

Verbal Result:  Yes  No  Add'l Phone #:

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

Relinquished By: \_\_\_\_\_

Date: \_\_\_\_\_

Received By: \_\_\_\_\_

Delivered By: (Circle One)

Observed Temp. °C: *1.3*

Sample Condition:  Intact  Cool  Yes  No

CHECKED BY: *EB*

Turnaround Time: \_\_\_\_\_

Standard:  *RUSH*

Bacteria (only):  Intact  Cool  Yes  No

Sample Condition:  Observed Temp. °C: \_\_\_\_\_  Corrected Temp. °C: \_\_\_\_\_

FORM 006-R-312-10/01/21

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

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

General Information  
Phone: (505) 629-6116

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

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

QUESTIONS

Action 446396

**QUESTIONS**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 446396
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2407438506
Incident Name	NAPP2407438506 PLU 342 @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received

<b>Location of Release Source</b>	
<i>Please answer all the questions in this group.</i>	
Site Name	PLU 342
Date Release Discovered	02/27/2024
Surface Owner	Federal

<b>Incident Details</b>	
<i>Please answer all the questions in this group.</i>	
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

<b>Nature and Volume of Release</b>	
<i>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.</i>	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Normal Operations   Flow Line - Production   Produced Water   Released: 24 BBL   Recovered: 1 BBL   Lost: 23 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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

General Information  
Phone: (505) 629-6116

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

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

QUESTIONS, Page 2

Action 446396

**QUESTIONS (continued)**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 446396
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	<b>No, according to supplied volumes this does not appear to be a "gas only" report.</b>
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	<b>No</b>
Reasons why this would be considered a submission for a notification of a major release	<i>Unavailable.</i>

*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	<b>True</b>
The impacted area has been secured to protect human health and the environment	<b>True</b>
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	<b>False</b>
All free liquids and recoverable materials have been removed and managed appropriately	<b>True</b>
If all the actions described above have not been undertaken, explain why	<b>off site spill outside of berms or location</b>

*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: Alan Romero Title: Regulatory Analyst Email: alan.romero1@exxonmobil.com Date: 03/14/2024
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Action 446396

**QUESTIONS (continued)**

Operator:  XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 446396
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

**Site Characterization**

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

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	Attached Document
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 ½ and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between ½ and 1 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between ½ and 1 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

**Remediation Plan**

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

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

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

Chloride (EPA 300.0 or SM4500 Cl B)	640
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	92.8
GRO+DRO (EPA SW-846 Method 8015M)	72.9
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0

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

On what estimated date will the remediation commence	08/20/2024
On what date will (or did) the final sampling or liner inspection occur	01/29/2025
On what date will (or was) the remediation complete(d)	01/29/2025
What is the estimated surface area (in square feet) that will be reclaimed	823
What is the estimated volume (in cubic yards) that will be reclaimed	50
What is the estimated surface area (in square feet) that will be remediated	823
What is the estimated volume (in cubic yards) that will be remediated	80

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

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

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Action 446396

**QUESTIONS (continued)**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 446396
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

**Remediation Plan (continued)**

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

**This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:**

(Select all answers below that apply.)

(Ex Situ) Excavation and <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	HALFWAY DISPOSAL AND LANDFILL [FEEM0112334510]
<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.

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

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

I hereby agree and sign off to the above statement	Name: Robert Woodall Title: Environmental Analyst Email: robert.d.woodall@exxonmobil.com Date: 03/27/2025
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The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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Action 446396

**QUESTIONS (continued)**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 446396
	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 446396

**QUESTIONS (continued)**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 446396
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Sampling Event Information</b>	
Last sampling notification (C-141N) recorded	<b>436520</b>
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	<b>03/04/2025</b>
What was the (estimated) number of samples that were to be gathered	<b>1</b>
What was the sampling surface area in square feet	<b>200</b>

**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	823
What was the total volume (cubic yards) remediated	80
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	823
What was the total volume (in cubic yards) reclaimed	50

Summarize any additional remediation activities not included by answers (above)	Site assessment, delineation, and excavation activities were conducted at the Site to address the February 27, 2024, release of produced water. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, and confirmation soil samples, collected from the surface of the release extent, indicated that all COC concentrations were compliant with the Closure Criteria. Based on the soil sample analytical results, no further remediation was required. The disturbed ROW will be re-seeded with an approved BLM seed mixture. Excavation of impacted soil has mitigated 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 nAPP2407438506.
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*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: Robert Woodall Title: Environmental Analyst Email: robert.d.woodall@exxonmobil.com Date: 03/27/2025
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Action 446396

**QUESTIONS (continued)**

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	Action Number: 446396
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

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

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CONDITIONS

Action 446396

**CONDITIONS**

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**CONDITIONS**

Created By	Condition	Condition Date
rhamlet	We have received your Remediation Closure Report for Incident #NAPP2407438506 PLU 342, thank you. This Remediation Closure Report is approved.	3/28/2025