



May 7, 2025

**New Mexico Oil Conservation Division**

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

**Re: Closure Request  
Big Eddy Unit 248H and 249H  
Incident Numbers nAPP2418043567, nAPP2432147637, nAPP2432531235, &  
nAPP2502042071  
API: 30-015-40714 & 30-015-40715  
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared this *Closure Request* to document excavation and soil sampling activities performed at the Big Eddy Unit 248H and Big Eddy Unit 249H (Site), where a total of four releases occurred on the same pad. The purpose of excavation and soil sampling activities, conducted in accordance with an approved *Remediation Work Plan (Work Plan)*, was to address impacted soil from multiple releases of crude oil and produced water at the Site. XTO is submitting this *Closure Request*, describing excavation activities that have occurred and requesting no further remediation for Incident Numbers nAPP2418043567, nAPP2432147637, nAPP2432531235, & nAPP2502042071.

**SITE DESCRIPTION AND RELEASE SUMMARY**

All releases occurred in Eddy County, New Mexico (32.62087°, -103.83145°), at the Big Eddy Unit 248H and Big Eddy Unit 249H well pad. Release extent areas located west of the wellheads are located in Unit A, Section 35, Township 19 South, Range 31 East, and are associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM). Release extent areas located east of the wellheads are located in Unit D, Section 36, Township 19 South, and Range 31 on State Trust Land managed by New Mexico State Land Office (NMSLO) under Lease ID V0-6323-0003.

**Incident Number nAPP2418043567**

On June 21, 2024, the packing on the wellhead stuffing box failed, resulting in the release of approximately 5 barrels (bbls) of crude oil and 9 bbls of produced water onto the surface of the pad and lightly over-spraying the northwest area of the pad and surrounding pasture following the dominant wind direction that day. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 5 bbls of fluids were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) and submitted a Notification of Release (NOR) and Initial C-141 Application (C-141) on June 28, 2024. The release was assigned Incident Number nAPP2418043567.

XTO Energy, Inc  
Closure Request  
Big Eddy Unit 248H and 249H

On September 20, 2024, XTO submitted a *Remediation Work Plan (September 2024 Work Plan)* to the NMOCD describing Site assessment and delineation activities completed. The *September 2024 Work Plan* proposed the following remediation activities:

- Excavation of an estimated 1,500 cubic yards of total petroleum hydrocarbon (TPH) and chloride-impacted soil;
- The excavation will be backfilled and recontoured to match pre-existing conditions. Reclamation and reseeding of the on-pad area will occur during pad abandonment; and
- The area of investigation will continue to be monitored, and photo documentation of the vegetation will be included in the final *Closure Report*.

On November 6, 2024, NMOCD approved the *September 2024 Work Plan* with the following conditions:

*All samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards from Table 1 of the OCD Spill Rule for site assessment/characterization/proven depth to water determination. Sidewall/Edge samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. The release area will need confirmation floor/sidewall samples representing no more than 200 ft<sup>2</sup>. All sidewall samples should be taken from the sidewall of the excavation. Please make sure that the edge of the release extent is accurately defined. Confirmation samples will need to be conducted at surface and at 0.5 feet in the "Area of Investigation" to ensure that contaminants didn't get carried/deposited in this area. All off-pad areas must meet reclamation/revegetation standards set forth in the OCD Spill Rule.*

On January 16, 2025, and after Site discussions with the NMOCD, XTO requested a sampling variance for the "area of investigation" confirmation floor soil sampling frequency of one composite sample to representing at most a 1,000 square foot area. The NMOCD approved the sampling variance the same day.

**Incident Numbers: nAPP2432147637, nAPP2432531235, and nAPP2502042071**

On November 16, 2024, the packing on the stuffing box of the Big Eddy Unit 249H well failed, resulting in the release of approximately 10 bbls of crude oil onto the surface of the well pad. No fluids were recovered. XTO reported the release to the NMOCD and submitted a NOR and C-141 on November 16, 2024. The release was assigned Incident Number nAPP2432147637.

On November 19, 2024, an equipment failure at the Big Eddy Unit 248H wellhead resulted in the release of approximately 22 bbls of crude oil and 1 bbls of produced water onto the surface of the well pad. Four bbls of fluids were recovered. XTO reported the release to the NMOCD and submitted a NOR and C-141 on November 20, 2024. The release was assigned Incident Number nAPP2432531235.

On January 17, 2025, an equipment failure at the Big Eddy Unit 249H wellhead resulted in the release of approximately 33 bbls of crude oil and 29 bbls of produced water onto the surface of the pad. Approximately 35 bbls of fluids were recovered. Furthermore, approximately 73 thousand cubic feet (Mcf) of natural gas were vented during the release. XTO reported the release to the NMOCD and submitted a NOR and C-141 on November 20, 2024. The release was assigned Incident Number nAPP2502042071.

XTO Energy, Inc  
Closure Request  
Big Eddy Unit 248H and 249H

Ensolum conducted Site assessment and delineation activities following the three additional releases and presented the results in a Remediation Work Plan (*February 2025 Work Plan*) submitted on February 5, 2025. The *February 2025 Work Plan* was conditionally approved by the NMOCD on February 6, 2025. The approved *February 2025 Work Plan* proposed the following:

- Excavation of impacted soil across an estimated 34,375 square foot area on pad;
- Disposal of an estimated 3,800 cubic yards of impacted soil at the R360 landfill disposal facility; and
- Confirmation soil sampling completed in the area of investigation collected at a sampling frequency of every 1,000 square feet. Following discussion with the NMOCD this sampling frequency was confirmed on February 10, 2025. All other confirmation soil sampling within the excavation extent will be completed at a sampling frequency of every 200 square feet.

## SITE CHARACTERIZATION AND CLOSURE CRITERIA

As documented in the approved *September 2024 Work Plan and February 2025 Work Plan*, the following NMOCD Table I Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- TPH: 100 mg/kg
- Chloride: 600 mg/kg

## EXCAVATION AND SOIL SAMPLING ACTIVITIES

Between January 8 and March 2, 2025, Ensolum personnel were onsite to collect confirmation soil samples in the area of investigation and oversee excavation of impacted soil according to the approved *February 2025 Work Plan*. Composite soil samples CS01 through CS88 were collected from the area of investigation every 1,000 square feet from the surface by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. 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.

Excavation activities were performed by the use of heavy equipment. To direct excavation activities, soil was field screened for VOCs and chloride. Once field screening indicated impacted soil was adequately removed, 5-point composite soil samples were collected every 200 square feet from the floor and sidewalls of the excavation extent. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Confirmation soil samples FS01 through FS110 were collected from the floor of the excavation at depths ranging from 1-foot to 8 feet bgs. Confirmation soil samples SW01 through SW14 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 7 feet bgs. The confirmation soil sample locations were mapped utilizing a handheld global positioning system (GPS) unit and are depicted on Figure 1. Photographic documentation of the excavation activities and final excavation extent is provided in Appendix A.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico, for

XTO Energy, Inc  
Closure Request  
Big Eddy Unit 248H and 249H

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

The final excavation extent measured approximately 30,200 square feet. A total of approximately 3,100 cubic yards of impacted soil were removed during the excavation activities. The impacted soil will be transported and disposed of at the R360 Landfill Disposal Facility in Hobbs, New Mexico. Backfill activities are ongoing with material purchased locally and the Site will be recontoured to match pre-existing Site conditions.

## LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for confirmation soil samples CS57, CS59, and CS60, collected at surface, indicated chloride and/or TPH concentrations exceeded Closure Criteria. Excavation was completed and the following excavation soil samples were collected: CS57A collected at 2 feet bgs, CS59 collected at 0.5 feet bgs, and CS60 collected at 0.5 feet bgs, and corresponding sidewalls SW04 through SW06 were collected from depths ranging from ground surface to 2 feet bgs. Laboratory analytical results for all final samples from the area of investigation indicated they were in compliance with Closure Criteria.

Laboratory analytical results for all final excavation confirmation soil samples indicated all COCs were in compliance with Closure Criteria, with the exception of excavation soil samples FS08, FS13, FS31, FS34, FS45, FS55, FS59, FS60, FS61, FS72, FS90, FS91, SW20, and SW23, which indicated chloride and/or TPH concentrations exceeded Closure Criteria. As a result, those areas that exceeded the Closure Criteria were excavated further and the subsequent confirmation soil samples were in compliance with the Closure Criteria. The laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included in Appendix B.

## CLOSURE REQUEST

Excavation activities were conducted at the Site in accordance with the *February 2025 Work Plan* to address the four releases of crude oil and produced water. The approved February 4, 2025, *Work Plan* is included in Appendix C. Laboratory analytical results for all final excavation soil samples indicated all COC concentrations were compliant with the Closure Criteria. Based on the soil sample laboratory analytical results, no further remediation is required. Backfill is ongoing and the area will be recontoured to match pre-existing Site conditions.

Excavation of soil has removed impacted soil from the area. XTO believes these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests closure for Incident Numbers nAPP2418043567, nAPP2432147637, nAPP2432531235, and nAPP2502042071.

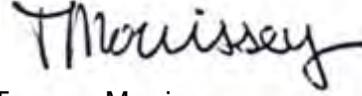
XTO Energy, Inc  
Closure Request  
Big Eddy Unit 248H and 249H

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

Sincerely,  
**Ensolum, LLC**



Tracy Hillard  
Project Engineer



Tacoma Morrissey  
Associate Principal

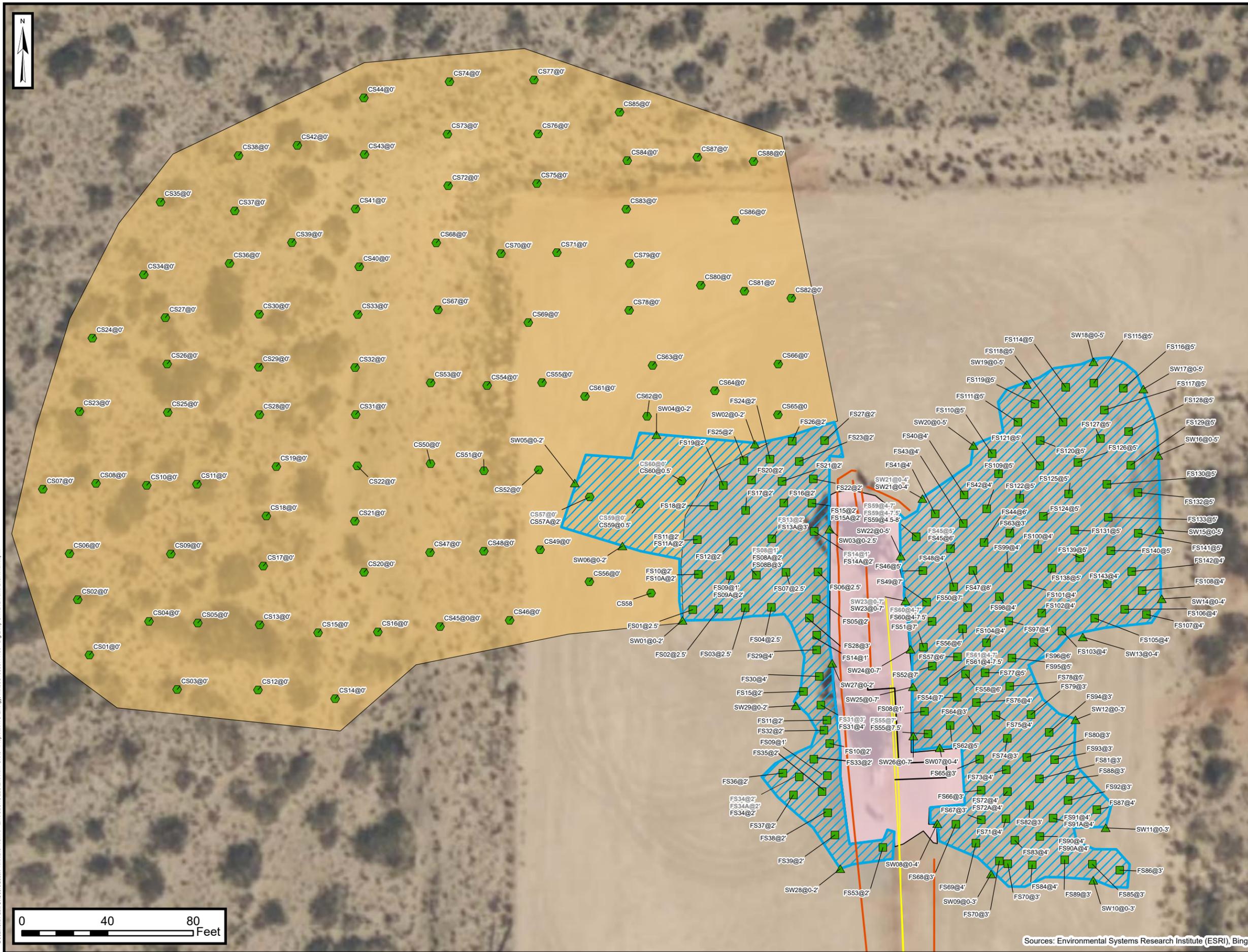
cc: Ashley McAfee, XTO  
Kaylan Dirkx, XTO  
New Mexico State Land Office  
Bureau of Land Management

Appendices:

Figure 1 Excavation Soil Sample Locations  
Table 1 Soil Sample Analytical Results  
Appendix A Photographic Log  
Appendix B Laboratory Analytical Reports & Chain-of-Custody Documentation  
Appendix C February 4, 2025, *Remediation Work Plan*



FIGURES



**Legend**

- Confirmation Soil Sample in Compliance with Closure Criteria
- Excavation Floor Sample in Compliance with Closure Criteria
- ▲ Excavation Sidewall Sample in Compliance with Closure Criteria
- Electric Utility Line
- Oil and Gas Utility Line
- Surface Line
- ▨ Excavation Extent
- Area of Investigation
- Production Equipment

**Excavation Soil Sample Locations**  
 XTO Energy, Inc  
 Big Eddy Unit 248H and 249H  
 Incident Number: nAPP2418043567,  
 nAPP2432147637,  
 nAPP2432531235, and nAPP2502042071  
 Unit A, Section 35, T 19S, R 31E  
 Eddy County, New Mexico

**FIGURE**  
**1**

**ENSOLUM**  
 Environmental, Engineering and  
 Hydrogeologic Consultants

Sources: Environmental Systems Research Institute (ESRI), Bing



TABLES



**TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS  
Big Eddy Unit 248H and 249H  
XTO Energy, Inc  
Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCB Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>100</b>	<b>600</b>
<b>Confirmation Soil Samples</b>										
CS01	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS02	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS03	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS04	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS05	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS06	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS07	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS08	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS09	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS10	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS11	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS12	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
CS13	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS14	02/19/2025	Surface	<0.050	<0.300	<10.0	31.5	<10.0	31.5	31.5	<16.0
CS15	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS16	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS17	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS18	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS19	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS20	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS21	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS22	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS23	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS24	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS25	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS26	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS27	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS28	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS29	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS30	02/19/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS31	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS32	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0



**TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS  
Big Eddy Unit 248H and 249H  
XTO Energy, Inc  
Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCB Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>100</b>	<b>600</b>
CS33	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS34	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS35	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS36	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS37	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS38	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS39	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS40	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS41	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS42	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS43	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS44	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS45	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS46	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS47	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS48	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS49	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
CS50	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS51	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS52	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	464
CS53	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS54	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS55	02/21/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	304
CS56	02/21/2025	Surface	<0.050	<0.300	<10.0	12.4	<10.0	12.4	12.4	64.0
CS57	02/24/2025	Surface	<0.050	<0.300	<10.0	428	50.3	428	478	2,600
CS57A	04/11/2025	2	<0.050	<0.300	<10.0	27.7	<10.0	27.7	27.7	464
CS58	02/21/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
CS59	02/24/2025	Surface	<0.050	<0.300	<10.0	344	125	344	469	460
CS59	04/01/2025	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	592
CS60	02/24/2025	Surface	<0.050	<0.300	<10.0	654	282	654	933	48.0
CS60	04/01/2025	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
CS61	02/21/2025	Surface	<0.050	<0.300	<10.0	13.1	<10.0	13.1	13.1	64.0
CS62	02/21/2025	Surface	<0.050	<0.300	<10.0	50.0	<10.0	50.0	50.0	64.0



**TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS  
Big Eddy Unit 248H and 249H  
XTO Energy, Inc  
Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCB Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>100</b>	<b>600</b>
CS63	02/21/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
CS64	02/21/2025	Surface	<0.050	<0.300	<10.0	10.9	<10.0	10.9	10.9	32.0
CS65	02/21/2025	Surface	<0.050	<0.300	<10.0	85.7	10.2	85.7	95.9	160
CS66	02/21/2025	Surface	<0.050	<0.300	<10.0	13.2	<10.0	13.2	13.2	32.0
CS67	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS68	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
CS69	02/21/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
CS70	02/21/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
CS71	02/21/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
CS72	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS73	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS74	02/20/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS75	02/21/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
CS76	02/21/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
CS77	02/21/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
CS78	02/21/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
CS79	02/21/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
CS80	02/21/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
CS81	02/21/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
CS82	02/21/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
CS83	02/21/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
CS84	02/21/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
CS85	02/21/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS86	02/21/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
CS87	02/21/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
CS88	02/21/2025	Surface	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
<b>Excavation Soil Samples</b>										
FS01	03/06/2025	2.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192
FS02	03/06/2025	2.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	240
FS03	03/06/2025	2.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	336
FS04	03/06/2025	2.5	<0.050	<0.300	<10.0	10.6	<10.0	10.6	10.6	304
FS05	03/06/2025	2	<0.050	<0.300	<10.0	17.7	<10.0	17.7	17.7	272
FS06	03/07/2025	2.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160



**TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS  
Big Eddy Unit 248H and 249H  
XTO Energy, Inc  
Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
FS07	03/07/2025	2.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
<del>FS08</del>	<del>03/06/2025</del>	<del>2</del>	<del>&lt;0.050</del>	<del>&lt;0.300</del>	<del>&lt;10.0</del>	<del>427</del>	<del>29.0</del>	<del>427</del>	<del>456</del>	<del>444</del>
FS08	03/11/2025	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192
FS09	03/06/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
FS10	03/06/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS11	03/06/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS12	03/06/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
<del>FS13</del>	<del>03/06/2025</del>	<del>2</del>	<del>&lt;0.050</del>	<del>&lt;0.300</del>	<del>&lt;10.0</del>	<del>443</del>	<del>43.2</del>	<del>443</del>	<del>426</del>	<del>444</del>
FS13	03/11/2025	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS14	03/06/2025	2	<0.050	<0.300	<10.0	26.9	<10.0	26.9	26.9	176
FS15	03/06/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS16	03/07/2025	2	<0.050	<0.300	<10.0	20.0	<10.0	20.0	20.0	160
FS17	03/07/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FS18	03/07/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS19	03/07/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
FS20	03/07/2025	2	<0.050	<0.300	<10.0	29.2	<10.0	29.2	29.2	112
FS21	03/07/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS22	03/07/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS23	03/07/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS24	03/07/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS25	03/07/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
FS26	03/07/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS27	03/07/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS28	03/11/2025	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS29	04/10/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
FS30	04/10/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	256
<del>FS34</del>	<del>03/10/2025</del>	<del>3</del>	<del>&lt;0.050</del>	<del>&lt;0.300</del>	<del>&lt;10.0</del>	<del>83.4</del>	<del>49.4</del>	<del>83.4</del>	<del>403</del>	<del>428</del>
FS31	04/17/2025	4	<0.050	<0.300	<10.0	25.3	<10.0	25.3	25.3	240
FS32	04/04/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
FS33	03/11/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
<del>FS34</del>	<del>03/11/2025</del>	<del>2</del>	<del>&lt;0.050</del>	<del>&lt;0.300</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>&lt;10.0</del>	<del>444</del>
<del>FS34</del>	<del>03/13/2025</del>	<del>2</del>	<del>&lt;0.050</del>	<del>&lt;0.300</del>	<del>&lt;10.0</del>	<del>252</del>	<del>45.8</del>	<del>252</del>	<del>298</del>	<del>352</del>
FS34	04/17/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0



**TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS  
Big Eddy Unit 248H and 249H  
XTO Energy, Inc  
Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
FS35	03/13/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208
FS36	03/13/2025	2	<0.050	<0.300	<10.0	59.7	<10.0	59.7	59.7	160
FS37	03/13/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
FS38	03/13/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS39	03/13/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FS40	03/10/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
FS41	03/10/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	224
FS42	03/10/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
FS43	04/04/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192
FS44	03/17/2025	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
FS45	04/11/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	656
FS45	04/25/2025	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
FS46	04/04/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	352
FS47	03/17/2025	8	<0.050	<0.300	<10.0	13.9	<10.0	13.9	13.9	320
FS48	04/10/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS49	04/04/2025	7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	416
FS50	04/10/2025	7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
FS51	04/10/2025	7	<0.050	<0.300	<10.0	17.8	<10.0	17.8	17.8	64.0
FS52	04/10/2025	7	<0.050	<0.300	<10.0	13.9	<10.0	13.9	13.9	<16.0
FS53	03/13/2025	2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
FS54	04/10/2025	7	<0.050	<0.300	<10.0	13.4	<10.0	13.4	13.4	48.0
FS55	04/10/2025	7	<0.050	<0.300	<10.0	97.2	50.3	97.2	148	16.0
FS55	04/25/2025	7.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
FS56	03/13/2025	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	368
FS57	03/13/2025	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	320
FS58	03/13/2025	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
FS59	03/17/2025	4-7	<0.050	<0.300	<10.0	36.2	<10.0	36.2	36.2	752
FS59	04/25/2025	4-7.5	<0.050	<0.300	<10.0	92.3	40	92.3	102.3	80.0
FS59	05/02/2025	4.5-8	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	352
FS60	03/17/2025	4-7	<0.050	<0.300	<10.0	87.9	25.6	87.9	114	1,550
FS60	04/25/2025	4-7.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
FS61	03/17/2025	4-7	<0.050	<0.300	<10.0	499	98.3	499	597	1,330
FS61	04/25/2025	4-7.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0



**TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS  
Big Eddy Unit 248H and 249H  
XTO Energy, Inc  
Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
FS62	04/10/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
FS63	04/10/2025	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS64	03/17/2025	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS65	03/17/2025	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FS66	03/17/2025	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	256
FS67	03/17/2025	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
FS68	03/20/2025	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS69	04/01/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
FS70	04/10/2025	3	<0.050	<0.300	<10.0	21.2	<10.0	21.2	21.2	32.0
FS71	04/01/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	432
FS72	04/01/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	560
FS72A	04/02/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	320
FS73	04/02/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
FS74	03/20/2025	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	304
FS75	04/10/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
FS76	04/10/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FS77	04/11/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	496
FS78	04/11/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FS79	04/10/2025	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS80	04/10/2025	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS81	04/10/2025	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS82	04/10/2025	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
FS83	04/02/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FS84	04/02/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	400
FS85	04/10/2025	3	<0.050	<0.300	<10.0	25.3	<10.0	25.3	25.3	32.0
FS86	03/21/2025	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS87	04/02/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	400
FS88	04/10/2025	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS89	04/10/2025	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS90	04/01/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	384
FS90A	04/02/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	256
FS91	04/01/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	432
FS91A	04/02/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	320



**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**Big Eddy Unit 248H and 249H**  
**XTO Energy, Inc**  
**Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
FS92	04/10/2025	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
FS93	04/10/2025	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS94	04/10/2025	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	544
FS95	04/10/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS96	04/11/2025	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FS97	04/10/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
FS98	04/10/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	240
FS99	04/10/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS100	04/10/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS101	04/10/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FS102	04/10/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	176
FS103	04/11/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS104	04/11/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS105	03/21/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
FS106	03/21/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192
FS107	03/21/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	592
FS108	03/21/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	288
FS109	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS110	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS111	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
FS114	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	352
FS115	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FS116	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS117	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS118	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS119	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS120	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
FS121	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS122	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS124	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	352
FS125	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS126	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS127	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144



**TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS  
Big Eddy Unit 248H and 249H  
XTO Energy, Inc  
Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
FS128	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS129	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS130	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS131	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	224
FS132	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FS133	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS138	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	224
FS139	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS140	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FS141	03/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS142	03/31/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	304
FS143	03/31/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	272
SW01	03/10/2025	0-2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	304
SW02	03/10/2025	0-2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW03	03/10/2025	0-2.5	<0.050	<0.300	<10.0	23.8	<10.0	23.8	23.8	112
SW04	04/11/2025	0-2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
SW05	04/11/2025	0-2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
SW06	04/11/2025	0-2	<0.050	<0.300	<10.0	29.7	<10.0	29.7	29.7	192
SW07	04/11/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
SW08	04/02/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
SW09	04/11/2025	0-3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW10	04/11/2025	0-3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SW11	04/11/2025	0-3	<0.050	<0.300	<10.0	63.2	10.4	63.2	73.6	48.0
SW12	04/11/2025	0-3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SW13	04/11/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SW14	04/11/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW15	04/11/2025	0-5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW16	04/11/2025	0-5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW17	04/11/2025	0-5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SW18	04/11/2025	0-5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SW19	04/11/2025	0-5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SW20	04/11/2025	0-5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW21	04/11/2025	0-4	<0.050	<0.300	<10.0	71.4	28.8	71.4	100	64.0



**TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS  
Big Eddy Unit 248H and 249H  
XTO Energy, Inc  
Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCD Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>100</b>	<b>600</b>
SW21	04/17/2025	0-4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
SW22	04/11/2025	0-5	<0.050	<0.300	<10.0	68.3	23.9	68.3	92.2	48.0
<del>SW23</del>	<del>04/11/2025</del>	<del>0-7</del>	<del>&lt;0.050</del>	<del>&lt;0.300</del>	<del>&lt;10.0</del>	87.2	36.6	87.2	124	32.0
SW23	04/25/2025	0-7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192
SW24	04/11/2025	0-7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SW25	04/11/2025	0-7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SW26	04/11/2025	0-7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW27	04/11/2025	0-2	<0.050	<0.300	<10.0	22.5	<10.0	22.5	22.5	16.0
SW28	04/11/2025	0-2	<0.050	<0.300	<10.0	27.1	<10.0	27.1	27.1	32.0
SW29	04/11/2025	0-2	<0.050	<0.300	<10.0	33.2	<10.0	33.2	33.2	16.0

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

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

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities



APPENDIX A  
Photographic Log

---



Photographic Log

XTO Energy, Inc  
Big Eddy Unit 248H and 249H  
nAPP2418043567, nAPP2432147637,  
nAPP2432531235, & nAPP2502042071



Photograph: 1 Date: 2/19/2025  
Description: Confirmation soil sampling activities  
View: South

Photograph: 2 Date: 2/21/2025  
Description: Confirmation soil sampling activities  
View: North



Photograph: 3 Date: 3/5/2025  
Description: Excavation activities  
View: East

Photograph: 4 Date: 3/7/2025  
Description: Excavation activities  
View: Southeast



**Photographic Log**

XTO Energy, Inc  
Big Eddy Unit 248H and 249H  
nAPP2418043567, nAPP2432147637,  
nAPP2432531235, & nAPP2502042071



Photograph: 5 Date: 3/13/2025  
Description: Excavation activities  
View: North

Photograph: 6 Date: 3/18/2025  
Description: Excavation activities  
View: North



Photograph: 7 Date: 3/31/2025  
Description: Excavation activities  
View: South

Photograph: 8 Date: 4/1/2025  
Description: Excavation activities  
View: East



Photographic Log

XTO Energy, Inc

Big Eddy Unit 248H and 249H  
nAPP2418043567, nAPP2432147637,  
nAPP2432531235, & nAPP2502042071

188°S (T) LAT: 32.621333 LON: -103.830977 ±6ft ▲ 3495ft



28°NE (T) LAT: 32.620582 LON: -103.831284 ±9ft ▲ 3491ft



Photograph: 9 Date: 4/1/2025  
Description: Excavation activities  
View: South

Photograph: 10 Date: 4/2/2025  
Description: Excavation activities  
View: Northeast



Photograph: 11 Date: 4/10/2025  
Description: Excavation activities  
View: North

Photograph: 12 Date: 4/25/2025  
Description: Excavation activities  
View: Northwest



## APPENDIX B

### Laboratory Analytical Reports & Chain of Custody Documentation

---



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

---

May 05, 2025

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

RE: BIG EDDY UNIT 248H & 249H

Enclosed are the results of analyses for samples received by the laboratory on 05/02/25 12:15.

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.

Celey D. Keene  
Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	05/02/2025	Sampling Date:	05/02/2025
Reported:	05/05/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085,-103.83132		

**Sample ID: FS 59 4.5-8' (H252640-01)**

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	05/02/2025	ND	1.78	89.1	2.00	10.1		
Toluene*	<0.050	0.050	05/02/2025	ND	1.87	93.6	2.00	10.9		
Ethylbenzene*	<0.050	0.050	05/02/2025	ND	1.86	92.8	2.00	11.9		
Total Xylenes*	<0.150	0.150	05/02/2025	ND	5.48	91.3	6.00	12.2		
Total BTEX	<0.300	0.300	05/02/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	05/02/2025	ND	480	120	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	05/02/2025	ND	209	104	200	2.83		
DRO >C10-C28*	<10.0	10.0	05/02/2025	ND	198	99.2	200	2.82		
EXT DRO >C28-C36	<10.0	10.0	05/02/2025	ND						

Surrogate: 1-Chlorooctane 80.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 76.0 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Notes and Definitions**

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

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240  
 (575) 393-2376 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

**BILL TO**

**ANALYSIS REQUEST**

Company Name: Ensolum, LLC		P.O. #:	
Project Manager: Tracy Hillard		Company: XTO Energy, Inc	
Address: 601 N Marlenfeld Street, Suite 400		Attn: Colton Brown	
City: Midland	State: TX	Zip: 79701	Address: 3104 E Greene St
Phone #: 575-937-3906	Fax #:		City: Carlsbad
Project #: 03C1558453	Project Owner: XTO Energy		State: NM
Project Name: Big Eds Unit 298108 24911 - SPILLS			Zip: 88220
Project Location: 32.62085, -103.83132	Phone #:		Fax #:
Sampler Name: Evan Roe			

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 :	ACID/BASE:					
11358440	FS 59	4.5-8	G	1								5-2-25	960	✓	✓	✓

**PLEASE NOTE:** Liability and Damages: Cardinal's liability and damages are 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 interruption, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or in relation to the performance of services provided by Cardinal. Signature of customer shall appear in the above stated positions or otherwise.

Rollinquinshed By: <i>EMOR</i>	Date: 5-2-25	Received By: <i>ADAMS</i>
Time: 10:15		
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Overhead Temp. °C: 5.42 Corrected Temp. °C: 5.72	Sample Condition Cool Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Checked By: <i>AD</i>
Turnaround Time: <b>Standard</b>	Thermometer ID: 4534100	Bacteria (only) Cool Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No
Standard Rush: <input checked="" type="checkbox"/>	Cost Center: 1140201001	Sample Condition Observed Temp. °C: <input type="checkbox"/> Yes <input type="checkbox"/> No
Corrected Temp. °C:	Incident Number: 1140201001	Corrected Temp. °C:
	Cost Center: 48905000	
	Remarks: <b>1140201001</b>	
	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
	All Results are emailed. Please provide Email address: <i>BBell@ensolum.com, TMorrissey@ensolum.com, THillard@ensolum.com, KThomason@ensolum.com</i>	
	NAP#241804367	
	NAP#2432147637	
	NAP#2432531235	
	NAP#2502042071	

† Cardinal cannot accept verbal changes. Please email changes to cely,keen@cardinallabsnm.com



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

---

February 26, 2025

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BIG EDDY UNIT 248H

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

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 01 SURFACE (H251014-01)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2025	ND	2.06	103	2.00	5.08		
Toluene*	<0.050	0.050	02/22/2025	ND	2.12	106	2.00	4.76		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.19	109	2.00	4.36		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	6.70	112	6.00	4.34		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	192	95.8	200	3.48		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	194	96.8	200	3.40		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 02 SURFACE (H251014-02)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2025	ND	2.06	103	2.00	5.08		
Toluene*	<0.050	0.050	02/22/2025	ND	2.12	106	2.00	4.76		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.19	109	2.00	4.36		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	6.70	112	6.00	4.34		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	192	95.8	200	3.48		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	194	96.8	200	3.40		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 03 SURFACE (H251014-03)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2025	ND	2.06	103	2.00	5.08		
Toluene*	<0.050	0.050	02/22/2025	ND	2.12	106	2.00	4.76		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.19	109	2.00	4.36		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	6.70	112	6.00	4.34		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	192	95.8	200	3.48		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	194	96.8	200	3.40		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 04 SURFACE (H251014-04)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/23/2025	ND	2.06	103	2.00	5.08		
Toluene*	<0.050	0.050	02/23/2025	ND	2.12	106	2.00	4.76		
Ethylbenzene*	<0.050	0.050	02/23/2025	ND	2.19	109	2.00	4.36		
Total Xylenes*	<0.150	0.150	02/23/2025	ND	6.70	112	6.00	4.34		
Total BTEX	<0.300	0.300	02/23/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	192	95.8	200	3.48		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	194	96.8	200	3.40		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 05 SURFACE (H251014-05)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/23/2025	ND	2.06	103	2.00	5.08		
Toluene*	<0.050	0.050	02/23/2025	ND	2.12	106	2.00	4.76		
Ethylbenzene*	<0.050	0.050	02/23/2025	ND	2.19	109	2.00	4.36		
Total Xylenes*	<0.150	0.150	02/23/2025	ND	6.70	112	6.00	4.34		
Total BTEX	<0.300	0.300	02/23/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	192	95.8	200	3.48		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	194	96.8	200	3.40		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 94.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.8 % 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.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 06 SURFACE (H251014-06)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/23/2025	ND	2.06	103	2.00	5.08		
Toluene*	<0.050	0.050	02/23/2025	ND	2.12	106	2.00	4.76		
Ethylbenzene*	<0.050	0.050	02/23/2025	ND	2.19	109	2.00	4.36		
Total Xylenes*	<0.150	0.150	02/23/2025	ND	6.70	112	6.00	4.34		
Total BTEX	<0.300	0.300	02/23/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	192	95.8	200	3.48		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	194	96.8	200	3.40		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 07 SURFACE (H251014-07)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/23/2025	ND	2.06	103	2.00	5.08		
Toluene*	<0.050	0.050	02/23/2025	ND	2.12	106	2.00	4.76		
Ethylbenzene*	<0.050	0.050	02/23/2025	ND	2.19	109	2.00	4.36		
Total Xylenes*	<0.150	0.150	02/23/2025	ND	6.70	112	6.00	4.34		
Total BTEX	<0.300	0.300	02/23/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	192	95.8	200	3.48		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	194	96.8	200	3.40		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 08 SURFACE (H251014-08)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/23/2025	ND	2.06	103	2.00	5.08		
Toluene*	<0.050	0.050	02/23/2025	ND	2.12	106	2.00	4.76		
Ethylbenzene*	<0.050	0.050	02/23/2025	ND	2.19	109	2.00	4.36		
Total Xylenes*	<0.150	0.150	02/23/2025	ND	6.70	112	6.00	4.34		
Total BTEX	<0.300	0.300	02/23/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	220	110	200	4.50		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	210	105	200	4.13		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 09 SURFACE (H251014-09)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/23/2025	ND	2.06	103	2.00	5.08		
Toluene*	<0.050	0.050	02/23/2025	ND	2.12	106	2.00	4.76		
Ethylbenzene*	<0.050	0.050	02/23/2025	ND	2.19	109	2.00	4.36		
Total Xylenes*	<0.150	0.150	02/23/2025	ND	6.70	112	6.00	4.34		
Total BTEX	<0.300	0.300	02/23/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	220	110	200	4.50		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	210	105	200	4.13		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 86.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.0 % 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.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 10 SURFACE (H251014-10)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/23/2025	ND	2.06	103	2.00	5.08		
Toluene*	<0.050	0.050	02/23/2025	ND	2.12	106	2.00	4.76		
Ethylbenzene*	<0.050	0.050	02/23/2025	ND	2.19	109	2.00	4.36		
Total Xylenes*	<0.150	0.150	02/23/2025	ND	6.70	112	6.00	4.34		
Total BTEX	<0.300	0.300	02/23/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	220	110	200	4.50		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	210	105	200	4.13		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 86.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.6 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 11 SURFACE (H251014-11)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2025	ND	2.07	104	2.00	0.192		
Toluene*	<0.050	0.050	02/22/2025	ND	2.27	114	2.00	0.625		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.45	123	2.00	1.20	QM-07, QR-03	
Total Xylenes*	<0.150	0.150	02/22/2025	ND	7.42	124	6.00	1.78	QM-07, QR-03	
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	220	110	200	4.50		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	210	105	200	4.13		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 86.1 % 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.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 12 SURFACE (H251014-12)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2025	ND	2.07	104	2.00	0.192		
Toluene*	<0.050	0.050	02/22/2025	ND	2.27	114	2.00	0.625		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.45	123	2.00	1.20		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	7.42	124	6.00	1.78		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	02/21/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	220	110	200	4.50		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	210	105	200	4.13		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 93.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.8 % 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.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 13 SURFACE (H251014-13)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2025	ND	2.07	104	2.00	0.192		
Toluene*	<0.050	0.050	02/22/2025	ND	2.27	114	2.00	0.625		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.45	123	2.00	1.20		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	7.42	124	6.00	1.78		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	220	110	200	4.50		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	210	105	200	4.13		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 85.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.3 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 14 SURFACE (H251014-14)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2025	ND	2.07	104	2.00	0.192		
Toluene*	<0.050	0.050	02/22/2025	ND	2.27	114	2.00	0.625		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.45	123	2.00	1.20		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	7.42	124	6.00	1.78		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	220	110	200	4.50		
<b>DRO &gt;C10-C28*</b>	<b>31.5</b>	10.0	02/21/2025	ND	210	105	200	4.13		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 87.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.7 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 15 SURFACE (H251014-15)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2025	ND	2.07	104	2.00	0.192		
Toluene*	<0.050	0.050	02/22/2025	ND	2.27	114	2.00	0.625		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.45	123	2.00	1.20		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	7.42	124	6.00	1.78		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	220	110	200	4.50		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	210	105	200	4.13		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 87.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.6 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 16 SURFACE (H251014-16)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2025	ND	2.07	104	2.00	0.192		
Toluene*	<0.050	0.050	02/22/2025	ND	2.27	114	2.00	0.625		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.45	123	2.00	1.20		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	7.42	124	6.00	1.78		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	220	110	200	4.50		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	210	105	200	4.13		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 91.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.9 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 17 SURFACE (H251014-17)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2025	ND	2.07	104	2.00	0.192		
Toluene*	<0.050	0.050	02/22/2025	ND	2.27	114	2.00	0.625		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.45	123	2.00	1.20		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	7.42	124	6.00	1.78		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	220	110	200	4.50		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	210	105	200	4.13		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 88.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.0 % 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.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 18 SURFACE (H251014-18)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2025	ND	2.07	104	2.00	0.192		
Toluene*	<0.050	0.050	02/22/2025	ND	2.27	114	2.00	0.625		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.45	123	2.00	1.20		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	7.42	124	6.00	1.78		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	220	110	200	4.50		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	210	105	200	4.13		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 95.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.6 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 19 SURFACE (H251014-19)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2025	ND	2.07	104	2.00	0.192		
Toluene*	<0.050	0.050	02/22/2025	ND	2.27	114	2.00	0.625		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.45	123	2.00	1.20		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	7.42	124	6.00	1.78		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	220	110	200	4.50		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	210	105	200	4.13		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 90.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.1 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 20 SURFACE (H251014-20)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2025	ND	2.07	104	2.00	0.192		
Toluene*	<0.050	0.050	02/22/2025	ND	2.27	114	2.00	0.625		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.45	123	2.00	1.20		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	7.42	124	6.00	1.78		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	220	110	200	4.50		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	210	105	200	4.13		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 90.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.1 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 21 SURFACE (H251014-21)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2025	ND	2.07	104	2.00	0.192		
Toluene*	<0.050	0.050	02/22/2025	ND	2.27	114	2.00	0.625		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.45	123	2.00	1.20		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	7.42	124	6.00	1.78		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	220	110	200	4.50		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	210	105	200	4.13		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 88.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.3 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 22 SURFACE (H251014-22)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2025	ND	2.07	104	2.00	0.192		
Toluene*	<0.050	0.050	02/22/2025	ND	2.27	114	2.00	0.625		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.45	123	2.00	1.20		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	7.42	124	6.00	1.78		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	220	110	200	4.50		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	210	105	200	4.13		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 89.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.0 % 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.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 23 SURFACE (H251014-23)**

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	02/22/2025	ND	2.07	104	2.00	0.192		
Toluene*	<0.050	0.050	02/22/2025	ND	2.27	114	2.00	0.625		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.45	123	2.00	1.20		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	7.42	124	6.00	1.78		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	220	110	200	4.50		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	210	105	200	4.13		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 92.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.0 % 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.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 24 SURFACE (H251014-24)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2025	ND	2.07	104	2.00	0.192		
Toluene*	<0.050	0.050	02/22/2025	ND	2.27	114	2.00	0.625		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.45	123	2.00	1.20		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	7.42	124	6.00	1.78		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	220	110	200	4.50		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	210	105	200	4.13		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 92.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.2 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 25 SURFACE (H251014-25)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2025	ND	2.07	104	2.00	0.192		
Toluene*	<0.050	0.050	02/22/2025	ND	2.27	114	2.00	0.625		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.45	123	2.00	1.20		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	7.42	124	6.00	1.78		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	220	110	200	4.50		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	210	105	200	4.13		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 91.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.6 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 26 SURFACE (H251014-26)**

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	02/22/2025	ND	2.07	104	2.00	0.192		
Toluene*	<0.050	0.050	02/22/2025	ND	2.27	114	2.00	0.625		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.45	123	2.00	1.20		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	7.42	124	6.00	1.78		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	220	110	200	4.50		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	210	105	200	4.13		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 90.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.2 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 27 SURFACE (H251014-27)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2025	ND	2.07	104	2.00	0.192		
Toluene*	<0.050	0.050	02/22/2025	ND	2.27	114	2.00	0.625		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.45	123	2.00	1.20		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	7.42	124	6.00	1.78		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	220	110	200	4.50		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	210	105	200	4.13		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 88.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.2 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 28 SURFACE (H251014-28)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2025	ND	2.07	104	2.00	0.192		
Toluene*	<0.050	0.050	02/22/2025	ND	2.27	114	2.00	0.625		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.45	123	2.00	1.20		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	7.42	124	6.00	1.78		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	216	108	200	1.49		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	200	100	200	2.59		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 97.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.1 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 29 SURFACE (H251014-29)**

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	02/22/2025	ND	2.07	104	2.00	0.192		
Toluene*	<0.050	0.050	02/22/2025	ND	2.27	114	2.00	0.625		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.45	123	2.00	1.20		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	7.42	124	6.00	1.78		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	216	108	200	1.49		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	200	100	200	2.59		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 87.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.9 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/20/2025	Sampling Date:	02/19/2025
Reported:	02/26/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.08526-103.93856		

**Sample ID: CS 30 SURFACE (H251014-30)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/22/2025	ND	2.07	104	2.00	0.192		
Toluene*	<0.050	0.050	02/22/2025	ND	2.27	114	2.00	0.625		
Ethylbenzene*	<0.050	0.050	02/22/2025	ND	2.45	123	2.00	1.20		
Total Xylenes*	<0.150	0.150	02/22/2025	ND	7.42	124	6.00	1.78		
Total BTEX	<0.300	0.300	02/22/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/21/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/21/2025	ND	216	108	200	1.49		
DRO >C10-C28*	<10.0	10.0	02/21/2025	ND	200	100	200	2.59		
EXT DRO >C28-C36	<10.0	10.0	02/21/2025	ND						

Surrogate: 1-Chlorooctane 92.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.5 % 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.

Celey D. Keene, Lab Director/Quality Manager



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

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 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.
- 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

Cardinal Laboratories

\*=Accredited Analyte

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

*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



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

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

<b>Company Name:</b> Ensolum, LLC	<b>P.O. #:</b>	<b>BILL TO</b>	<b>ANALYSIS REQUEST</b>
<b>Project Manager:</b> Tracy Hillard	<b>Company:</b> XTO Energy Inc.		
<b>Address:</b> 3122 National Parks Hwy	<b>Attn:</b> Colton Brown		
<b>City:</b> Carlsbad	<b>Address:</b> 3104 E. Greene St.		
<b>Phone #:</b> 575-937-3906	<b>State:</b> NM		
<b>Fax #:</b>	<b>City:</b> Carlsbad		
<b>Project #:</b> 03C1558453	<b>State:</b> NM		
<b>Project Name:</b> Big Eddy Unit 248H	<b>Zip:</b> 88220		
<b>Project Location:</b> 32.08526, -103.93856	<b>Phone #:</b>		
<b>Sampler Name:</b> Azad Vojdani	<b>Fax #:</b>		

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:					
HS1014	CS01	Surface	C	1								02-11-25	0945	✓	✓	✓
	CS02			1									0948	✓	✓	✓
	CS03			1									0951	✓	✓	✓
	CS04			1									0954	✓	✓	✓
	CS05			1									1000	✓	✓	✓
	CS06			1									1003	✓	✓	✓
	CS07			1									1005	✓	✓	✓
	CS08			1									1006	✓	✓	✓
	CS09			1									1006	✓	✓	✓
	CS10			1									1009	✓	✓	✓

PLEASE NOTE: Labels and Designations. Cardinal's safety and direct contact survey for any claim arising whether reported or not, 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 determined without address 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 data, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services rendered by Cardinal, regardless of whether such claim is based upon any of the above stated warranties or otherwise.

<b>Relinquished By:</b> [Signature]	<b>Date:</b> 5-22-25	<b>Received By:</b> [Signature]	<b>Date:</b> 5-22-25
<b>Relinquished By:</b> [Signature]	<b>Date:</b> 5-22-25	<b>Received By:</b> [Signature]	<b>Date:</b> 5-22-25

<b>Delivered By:</b> (Circle One)	<b>Observed Temp. °C</b>	<b>Sample Condition</b>	<b>CHECKED BY:</b> (Initials)
Sampler - UPS - Bus - Other	Corrected Temp. °C	Cool Intact Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	[Signature]
Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Bacteria (only) Sample Condition	
Thermometer ID: #1140		Cool Intact	
Corrected Factor: 1.3c		Yes <input type="checkbox"/> No <input type="checkbox"/>	
Remarks: Incident # NADP241804367		Observed Temp. °C	
CC: P140201001		Corrected Temp. °C	

† Cardinal cannot accept verbal changes. Please email changes to caley.keene@cardinalbsrnm.com



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

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

<b>Company Name:</b> Ensolum, LLC <b>Project Manager:</b> Tracy Hillard <b>Address:</b> 3122 National Parks Hwy <b>City:</b> Carlsbad <b>State:</b> NM <b>Zip:</b> 88220 <b>Phone #:</b> 575-937-3906 <b>Fax #:</b> <b>Project #:</b> 03C1558453 <b>Project Owner:</b> XTO <b>Project Name:</b> Big Eddy Unit 248H <b>Project Location:</b> 32.08526, -103.93856 <b>Sampler Name:</b> Azad Vojdani		<b>P.O. #:</b> <b>Company:</b> XTO Energy Inc. <b>Attn:</b> Colton Brown <b>Address:</b> 3104 E. Greene St. <b>City:</b> Carlsbad <b>State:</b> NM <b>Zip:</b> 88220 <b>Phone #:</b> <b>Fax #:</b>	
<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>	
<b>Lab I.D.</b>	<b>Sample I.D.</b>	<b>Sample Depth (feet)</b>	<b>(G)RAB OR (C)OMP</b>
HES1014		Surface	C
11	CS11		
12	CS12		
13	CS13		
14	CS14		
15	CS15		
16	CS16		
17	CS17		
18	CS18		
19	CS19		
20	CS20		
		<b># CONTAINERS</b>	<b>MATRIX</b>
		<b>GROUNDWATER</b>	<b>WASTEWATER</b>
		<b>SOIL</b>	<b>OIL</b>
		<b>SLUDGE</b>	<b>OTHER :</b>
		<b>ACID/BASE:</b>	<b>ICE / COOL</b>
		<b>OTHER :</b>	<b>PRESERV</b>
		<b>DATE</b>	<b>SAMPLING</b>
		<b>TIME</b>	<b>BTEX</b>
		<b>TPH</b>	<b>CHLORIDE</b>
		<b>1036</b>	

PLEASE NOTE: Laboratory and/or client's analytical results are not valid if the sample is not preserved by the amount paid by the client for the analysis. All data including those for negligence and any other cause whatsoever shall be deemed void unless noted in writing and received by Cardinal within 30 days after completion of the analysis. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruption, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or caused by the performance of services rendered by Cardinal. Separation of multiple hard copies is based upon any of the above stated restrictions or otherwise.

**Relinquished By:** [Signature] **Date:** 8-20-25 **Time:** 1400

**Received By:** [Signature] **Date:** 8-20-25 **Time:** 1400

**Delivered By:** (Circle One)  Driver  Other

**Turnaround Time:** Standard  Rush

**Thermometer ID:** #140 **Thermometer Error:** +0.30

**Sample Condition:** Cool Intact  Bacteria (only)  Sample Condition Observed Temp. °C  Corrected Temp. °C

**Remarks:** Incident # NAPP241804367 CC: P114007001



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

101 East Marland, Hobbs, NM 88240  
 (575) 393-2326 FAX (575) 393-2475

<b>Company Name:</b> Ensolum, LLC <b>Project Manager:</b> Tracy Hillard <b>Address:</b> 3122 National Parks Hwy <b>City:</b> Carlsbad <b>State:</b> NM <b>Zip:</b> 88220 <b>Phone #:</b> 575-937-3906 <b>Fax #:</b> <b>Project #:</b> 03C1558453 <b>Project Owner:</b> XTO <b>Project Name:</b> Big Eddy Unit 248H <b>Project Location:</b> 32.08526, -103.93856 <b>Sampler Name:</b> Azad Vojdani		<b>BILL TO</b> <b>P.O. #:</b> <b>Company:</b> XTO Energy Inc. <b>Attn:</b> Colton Brown <b>Address:</b> 3104 E. Greene St. <b>City:</b> Carlsbad <b>State:</b> NM <b>Zip:</b> 88220 <b>Phone #:</b> <b>Fax #:</b>		<b>ANALYSIS REQUEST</b>						
FOR LAB USE ONLY										
Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX	PRESERV	SAMPLING	BTEX	TPH	CHLORIDE
HCS1014	CS21	Surface			SOIL	ICE / COOL	02-11-15			
	CS22				WASTEWATER		1040			
	CS23				SOIL		1216			
	CS24				SOIL		1229			
	CS25				SOIL		1230			
	CS26				SOIL		1232			
	CS27				SOIL		1234			
	CS28				SOIL		1236			
	CS29				SOIL		1238			
	CS30				SOIL		1240			

**PLEASE NOTE:** Cardinal and Ensolum guarantee the quality and quantity of samples for any data using services provided or not, and are not liable for any amount paid by the client for the analysis. All data including those for employee and any other cause whatsoever shall be deemed valid 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 residential or commercial damages, including without limitation, business interruption, loss of use, or loss of profits incurred by client, its subcontractors, affiliates or successors and/or any other party. The performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated warranties or otherwise.

**Relinquished By:** [Signature] **Date:** 2-10-25

**Received By:** [Signature] **Date:** 1-15-25

**Time:** 1:30 PM

**Time:** 1:30 PM

**Delivered By:** (Circle One) **Corrected Temp. °C:** 1.2

**Sampler - UPS - Bus - Other:** **Corrected Temp. °C:** 1.5

**Sample Condition:** Cool Intact  Yes  No

**Checked By:** [Signature]

**Turnaround Time:** Standard  Rush

**Thermometer ID:** #149 **Standard:**  **Corrected Temp. °C:** 10.3

**Remarks:** Incident # NAPP2418043567 CC: #1140201001

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

**All Results are emailed. Please provide Email address:** Tmorrissey@ensolum.com, Tmland@ensolum.com, AVojdani@ensolum.com

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

**Observed Temp. °C:** **Corrected Temp. °C:**

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



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

---

February 27, 2025

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

RE: BIG EDDY UNIT 248H

Enclosed are the results of analyses for samples received by the laboratory on 02/24/25 12:30.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene  
Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 31 SURFACE (H251071-01)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2025	ND	1.91	95.5	2.00	1.72		
Toluene*	<0.050	0.050	02/26/2025	ND	1.96	98.0	2.00	1.72		
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.96	97.8	2.00	2.30		
Total Xylenes*	<0.150	0.150	02/26/2025	ND	6.01	100	6.00	2.51		
Total BTEX	<0.300	0.300	02/26/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2025	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	193	96.7	200	8.61		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	198	99.1	200	5.56		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 94.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.9 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/24/2025  
 Reported: 02/27/2025  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62085-103.83132

Sampling Date: 02/20/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: CS 32 SURFACE (H251071-02)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2025	ND	1.91	95.5	2.00	1.72		
Toluene*	<0.050	0.050	02/26/2025	ND	1.96	98.0	2.00	1.72		
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.96	97.8	2.00	2.30		
Total Xylenes*	<0.150	0.150	02/26/2025	ND	6.01	100	6.00	2.51		
Total BTEX	<0.300	0.300	02/26/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2025	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	193	96.7	200	8.61		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	198	99.1	200	5.56		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/24/2025  
 Reported: 02/27/2025  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62085-103.83132

Sampling Date: 02/20/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: CS 33 SURFACE (H251071-03)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2025	ND	1.91	95.5	2.00	1.72		
Toluene*	<0.050	0.050	02/26/2025	ND	1.96	98.0	2.00	1.72		
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.96	97.8	2.00	2.30		
Total Xylenes*	<0.150	0.150	02/26/2025	ND	6.01	100	6.00	2.51		
Total BTEX	<0.300	0.300	02/26/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2025	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	193	96.7	200	8.61		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	198	99.1	200	5.56		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 98.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.9 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 34 SURFACE (H251071-04)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2025	ND	1.91	95.5	2.00	1.72		
Toluene*	<0.050	0.050	02/26/2025	ND	1.96	98.0	2.00	1.72		
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.96	97.8	2.00	2.30		
Total Xylenes*	<0.150	0.150	02/26/2025	ND	6.01	100	6.00	2.51		
Total BTEX	<0.300	0.300	02/26/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2025	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	193	96.7	200	8.61		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	198	99.1	200	5.56		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 95.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.2 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 35 SURFACE (H251071-05)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2025	ND	1.91	95.5	2.00	1.72		
Toluene*	<0.050	0.050	02/26/2025	ND	1.96	98.0	2.00	1.72		
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.96	97.8	2.00	2.30		
Total Xylenes*	<0.150	0.150	02/26/2025	ND	6.01	100	6.00	2.51		
Total BTEX	<0.300	0.300	02/26/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2025	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	193	96.7	200	8.61		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	198	99.1	200	5.56		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 95.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.7 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/24/2025  
 Reported: 02/27/2025  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62085-103.83132

Sampling Date: 02/20/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: CS 36 SURFACE (H251071-06)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2025	ND	1.91	95.5	2.00	1.72		
Toluene*	<0.050	0.050	02/26/2025	ND	1.96	98.0	2.00	1.72		
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.96	97.8	2.00	2.30		
Total Xylenes*	<0.150	0.150	02/26/2025	ND	6.01	100	6.00	2.51		
Total BTEX	<0.300	0.300	02/26/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2025	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	193	96.7	200	8.61		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	198	99.1	200	5.56		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 95.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.0 % 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.

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:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 37 SURFACE (H251071-07)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2025	ND	1.91	95.5	2.00	1.72		
Toluene*	<0.050	0.050	02/26/2025	ND	1.96	98.0	2.00	1.72		
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.96	97.8	2.00	2.30		
Total Xylenes*	<0.150	0.150	02/26/2025	ND	6.01	100	6.00	2.51		
Total BTEX	<0.300	0.300	02/26/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2025	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	193	96.7	200	8.61		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	198	99.1	200	5.56		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 99.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.4 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 38 SURFACE (H251071-08)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2025	ND	1.91	95.5	2.00	1.72		
Toluene*	<0.050	0.050	02/26/2025	ND	1.96	98.0	2.00	1.72		
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.96	97.8	2.00	2.30		
Total Xylenes*	<0.150	0.150	02/26/2025	ND	6.01	100	6.00	2.51		
Total BTEX	<0.300	0.300	02/26/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2025	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	193	96.7	200	8.61		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	198	99.1	200	5.56		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 99.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/24/2025  
 Reported: 02/27/2025  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62085-103.83132

Sampling Date: 02/20/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: CS 39 SURFACE (H251071-09)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2025	ND	1.91	95.5	2.00	1.72		
Toluene*	<0.050	0.050	02/26/2025	ND	1.96	98.0	2.00	1.72		
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.96	97.8	2.00	2.30		
Total Xylenes*	<0.150	0.150	02/26/2025	ND	6.01	100	6.00	2.51		
Total BTEX	<0.300	0.300	02/26/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2025	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	193	96.7	200	8.61		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	198	99.1	200	5.56		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 94.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.3 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 40 SURFACE (H251071-10)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2025	ND	1.91	95.5	2.00	1.72		
Toluene*	<0.050	0.050	02/26/2025	ND	1.96	98.0	2.00	1.72		
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.96	97.8	2.00	2.30		
Total Xylenes*	<0.150	0.150	02/26/2025	ND	6.01	100	6.00	2.51		
Total BTEX	<0.300	0.300	02/26/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2025	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	193	96.7	200	8.61		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	198	99.1	200	5.56		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 41 SURFACE (H251071-11)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2025	ND	1.91	95.5	2.00	1.72		
Toluene*	<0.050	0.050	02/26/2025	ND	1.96	98.0	2.00	1.72		
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.96	97.8	2.00	2.30		
Total Xylenes*	<0.150	0.150	02/26/2025	ND	6.01	100	6.00	2.51		
Total BTEX	<0.300	0.300	02/26/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2025	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	193	96.7	200	8.61		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	198	99.1	200	5.56		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 94.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.9 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 42 SURFACE (H251071-12)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2025	ND	1.91	95.5	2.00	1.72		
Toluene*	<0.050	0.050	02/26/2025	ND	1.96	98.0	2.00	1.72		
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.96	97.8	2.00	2.30		
Total Xylenes*	<0.150	0.150	02/26/2025	ND	6.01	100	6.00	2.51		
Total BTEX	<0.300	0.300	02/26/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2025	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	193	96.7	200	8.61		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	198	99.1	200	5.56		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 94.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.9 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 43 SURFACE (H251071-13)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2025	ND	2.06	103	2.00	0.0715	
Toluene*	<0.050	0.050	02/26/2025	ND	2.10	105	2.00	0.0321	
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.99	99.4	2.00	0.272	
Total Xylenes*	<0.150	0.150	02/26/2025	ND	5.83	97.1	6.00	0.296	
Total BTEX	<0.300	0.300	02/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.8 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/25/2025	ND	448	112	400	7.41	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	193	96.7	200	8.61	
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	198	99.1	200	5.56	
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND					

Surrogate: 1-Chlorooctane 99.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 44 SURFACE (H251071-14)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2025	ND	2.06	103	2.00	0.0715		
Toluene*	<0.050	0.050	02/26/2025	ND	2.10	105	2.00	0.0321		
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.99	99.4	2.00	0.272		
Total Xylenes*	<0.150	0.150	02/26/2025	ND	5.83	97.1	6.00	0.296		
Total BTEX	<0.300	0.300	02/26/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.7 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2025	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	02/25/2025	ND	193	96.7	200	8.61		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	198	99.1	200	5.56		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 95.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.1 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 45 SURFACE (H251071-15)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2025	ND	2.06	103	2.00	0.0715		
Toluene*	<0.050	0.050	02/26/2025	ND	2.10	105	2.00	0.0321		
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.99	99.4	2.00	0.272		
Total Xylenes*	<0.150	0.150	02/26/2025	ND	5.83	97.1	6.00	0.296		
Total BTEX	<0.300	0.300	02/26/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2025	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	02/25/2025	ND	193	96.7	200	8.61		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	198	99.1	200	5.56		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 46 SURFACE (H251071-16)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2025	ND	2.06	103	2.00	0.0715	
Toluene*	<0.050	0.050	02/26/2025	ND	2.10	105	2.00	0.0321	
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.99	99.4	2.00	0.272	
Total Xylenes*	<0.150	0.150	02/26/2025	ND	5.83	97.1	6.00	0.296	
Total BTEX	<0.300	0.300	02/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.8 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/25/2025	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	02/25/2025	ND	193	96.7	200	8.61	
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	198	99.1	200	5.56	
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND					

Surrogate: 1-Chlorooctane 97.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.8 % 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.

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:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 47 SURFACE (H251071-17)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2025	ND	2.06	103	2.00	0.0715		
Toluene*	<0.050	0.050	02/26/2025	ND	2.10	105	2.00	0.0321		
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.99	99.4	2.00	0.272		
Total Xylenes*	<0.150	0.150	02/26/2025	ND	5.83	97.1	6.00	0.296		
Total BTEX	<0.300	0.300	02/26/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2025	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	02/25/2025	ND	193	96.7	200	8.61		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	198	99.1	200	5.56		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 48 SURFACE (H251071-18)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2025	ND	2.06	103	2.00	0.0715	
Toluene*	<0.050	0.050	02/26/2025	ND	2.10	105	2.00	0.0321	
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.99	99.4	2.00	0.272	
Total Xylenes*	<0.150	0.150	02/26/2025	ND	5.83	97.1	6.00	0.296	
Total BTEX	<0.300	0.300	02/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/25/2025	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	02/25/2025	ND	193	96.7	200	8.61	
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	198	99.1	200	5.56	
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND					

Surrogate: 1-Chlorooctane 95.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 49 SURFACE (H251071-19)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2025	ND	2.06	103	2.00	0.0715	
Toluene*	<0.050	0.050	02/26/2025	ND	2.10	105	2.00	0.0321	
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.99	99.4	2.00	0.272	
Total Xylenes*	<0.150	0.150	02/26/2025	ND	5.83	97.1	6.00	0.296	
Total BTEX	<0.300	0.300	02/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.0 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/25/2025	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	02/25/2025	ND	193	96.7	200	8.61	
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	198	99.1	200	5.56	
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND					

Surrogate: 1-Chlorooctane 88.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.0 % 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.

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:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 50 SURFACE (H251071-20)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2025	ND	2.06	103	2.00	0.0715		
Toluene*	<0.050	0.050	02/27/2025	ND	2.10	105	2.00	0.0321		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.99	99.4	2.00	0.272		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.83	97.1	6.00	0.296		
Total BTEX	<0.300	0.300	02/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.0 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2025	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	02/25/2025	ND	193	96.7	200	8.61		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	198	99.1	200	5.56		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/24/2025  
 Reported: 02/27/2025  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62085-103.83132

Sampling Date: 02/20/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: CS 51 SURFACE (H251071-21)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2025	ND	2.06	103	2.00	0.0715	
Toluene*	<0.050	0.050	02/27/2025	ND	2.10	105	2.00	0.0321	
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.99	99.4	2.00	0.272	
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.83	97.1	6.00	0.296	
Total BTEX	<0.300	0.300	02/27/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/25/2025	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	02/25/2025	ND	195	97.7	200	0.671	
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	193	96.3	200	4.81	
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND					

Surrogate: 1-Chlorooctane 82.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.2 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/24/2025  
 Reported: 02/27/2025  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62085-103.83132

Sampling Date: 02/20/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: CS 52 SURFACE (H251071-22)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2025	ND	2.06	103	2.00	0.0715	
Toluene*	<0.050	0.050	02/27/2025	ND	2.10	105	2.00	0.0321	
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.99	99.4	2.00	0.272	
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.83	97.1	6.00	0.296	
Total BTEX	<0.300	0.300	02/27/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.5 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	02/25/2025	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	02/25/2025	ND	195	97.7	200	0.671	
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	193	96.3	200	4.81	
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 53 SURFACE (H251071-23)**

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	02/27/2025	ND	2.06	103	2.00	0.0715	
Toluene*	<0.050	0.050	02/27/2025	ND	2.10	105	2.00	0.0321	
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.99	99.4	2.00	0.272	
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.83	97.1	6.00	0.296	
Total BTEX	<0.300	0.300	02/27/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.4 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/25/2025	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	02/25/2025	ND	195	97.7	200	0.671	
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	193	96.3	200	4.81	
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 54 SURFACE (H251071-24)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2025	ND	2.06	103	2.00	0.0715	
Toluene*	<0.050	0.050	02/27/2025	ND	2.10	105	2.00	0.0321	
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.99	99.4	2.00	0.272	
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.83	97.1	6.00	0.296	
Total BTEX	<0.300	0.300	02/27/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.1 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/25/2025	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	02/25/2025	ND	195	97.7	200	0.671	
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	193	96.3	200	4.81	
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 67 SURFACE (H251071-25)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2025	ND	2.06	103	2.00	0.0715	
Toluene*	<0.050	0.050	02/27/2025	ND	2.10	105	2.00	0.0321	
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.99	99.4	2.00	0.272	
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.83	97.1	6.00	0.296	
Total BTEX	<0.300	0.300	02/27/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/25/2025	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	02/25/2025	ND	195	97.7	200	0.671	
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	193	96.3	200	4.81	
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 119 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 68 SURFACE (H251071-26)**

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	02/27/2025	ND	2.06	103	2.00	0.0715		
Toluene*	<0.050	0.050	02/27/2025	ND	2.10	105	2.00	0.0321		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.99	99.4	2.00	0.272		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.83	97.1	6.00	0.296		
Total BTEX	<0.300	0.300	02/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	02/25/2025	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	02/25/2025	ND	195	97.7	200	0.671		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	193	96.3	200	4.81		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 72 SURFACE (H251071-27)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2025	ND	2.06	103	2.00	0.0715	
Toluene*	<0.050	0.050	02/27/2025	ND	2.10	105	2.00	0.0321	
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.99	99.4	2.00	0.272	
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.83	97.1	6.00	0.296	
Total BTEX	<0.300	0.300	02/27/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.4 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/25/2025	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	02/25/2025	ND	195	97.7	200	0.671	
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	193	96.3	200	4.81	
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/24/2025  
 Reported: 02/27/2025  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62085-103.83132

Sampling Date: 02/20/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: CS 73 SURFACE (H251071-28)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2025	ND	2.06	103	2.00	0.0715	
Toluene*	<0.050	0.050	02/27/2025	ND	2.10	105	2.00	0.0321	
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.99	99.4	2.00	0.272	
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.83	97.1	6.00	0.296	
Total BTEX	<0.300	0.300	02/27/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.6 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/25/2025	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	02/25/2025	ND	195	97.7	200	0.671	
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	193	96.3	200	4.81	
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/20/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 74 SURFACE (H251071-29)**

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	02/27/2025	ND	2.06	103	2.00	0.0715		
Toluene*	<0.050	0.050	02/27/2025	ND	2.10	105	2.00	0.0321		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.99	99.4	2.00	0.272		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.83	97.1	6.00	0.296		
Total BTEX	<0.300	0.300	02/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2025	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	02/25/2025	ND	195	97.7	200	0.671		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	193	96.3	200	4.81		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Notes and Definitions**

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

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 3

**BILL TO**

**ANALYSIS REQUEST**

Company Name: Ensolum, LLC  
 Project Manager: Tracy Hillard  
 Address: 601 N Marlenfeld Street, suite 400  
 City: Midland State: TX Zip: 79701  
 Phone #: 575-937-3906 Fax #: \_\_\_\_\_  
 Project #: 03C1558453 Project Owner: \_\_\_\_\_  
 Project Name: Big Eddy Unit 248H  
 Project Location: 32.62085, -103.83132  
 State: NM Zip: \_\_\_\_\_  
 Sampler Name: Uriel Santillana  
 P.O. #: \_\_\_\_\_  
 Company: XTO Energy  
 Attn: Colton Brown  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_  
 State: NM Zip: \_\_\_\_\_  
 Phone #: \_\_\_\_\_  
 Fax #: \_\_\_\_\_

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	Chloride	BTEX	TPH
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
ABS1071		Surface	C	1			X					X	X	X		
1	CS31										2/20/25	1055	X	X	X	
2	CS32											1050	X	X	X	
3	CS33											1100	X	X	X	
4	CS34											1105	X	X	X	
5	CS35											1110	X	X	X	
6	CS36											1115	X	X	X	
7	CS37											1120	X	X	X	
8	CS38											1125	X	X	X	
9	CS39											1130	X	X	X	

PLEASE NOTE: Labels and tags are the property of Cardinal and must be returned to the lab. Labels must be attached to the container and the container must be sealed by the client for the analysis. All data, including those for negligence and any other cause whatsoever shall be deemed valid unless made in writing and recorded by Cardinal within 30 days after completion of the applicable service. It is the responsibility of the client to ensure that the container is properly sealed and labeled. No responsibility is assumed for any damage to samples or equipment. The client is responsible for the collection, handling, and storage of samples. Cardinal is not responsible for any damage to samples or equipment. The client is responsible for the collection, handling, and storage of samples. Cardinal is not responsible for any damage to samples or equipment.

Relinquished By: \_\_\_\_\_  
 Date: 5/24/25 Time: 1:30  
 Received By: S. Rodriguez  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Delivered By: (Circle One) \_\_\_\_\_  
 Sampler - UPS - Bus - Other: \_\_\_\_\_  
 Turnaround Time: Standard  Rush   
 Bacteria (only) Sample Condition:  Cool  Intact  Yes  No  Corrected Temp. C: \_\_\_\_\_  
 Incident Number nAPP2418043567

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



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

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

2083

**BILL TO**

**ANALYSIS REQUEST**

Company Name: Ensolum, LLC  
 Project Manager: Tracy Hillard  
 Address: 601 N Marlenfeld Street, suite 400  
 City: Midland State: TX Zip: 79701  
 Phone #: 575-937-3906 Fax #: Project Owner:  
 Project #: 03C1558453  
 Project Name: Big Eddy Unit 248H  
 Project Location: 32.62085, -103.83132  
 Sampler Name: Uriel Santillana  
 P.O. #: Company: XTO Energy  
 Attn: Colton Brown  
 Address: City: State: NM Zip:  
 Phone #: Fax #:

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	ANALYSIS
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:			
HS1071	CS40	surface	C	1			X					2/20/25	1135	Chloride
	CS41		C	1									1140	BTEX
	CS42		C	1									1145	TPH
	CS43		C	1									1150	
	CS44		C	1									1155	
	CS45		C	1									1200	
	CS46		C	1									1205	
	CS47		C	1									1210	
	CS48		C	1									1215	
	CS49		C	1									1220	

PLEASE NOTE: Usability and coverage. Cardinal's ability and ability to analyze samples for any claim arising under this contract or any claim arising under the contract shall be limited to the amount paid by the client for the service. No event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruption, loss of sale, or loss of profits, incurred by client, by subcontractors or successors arising out of or related to the performance of services hereunder by Cardinal, its affiliates, its agents, its subcontractors, its employees, its independent contractors, or its subcontractors.

Relinquished By: [Signature]  
 Date: 5/25/25  
 Time: 1:30  
 Received By: [Signature]  
 Date: [Blank]  
 Time: [Blank]

Delivered By: (Circle One)  
 Sampler - UPS - Bus - Other: [Blank]  
 Temperature: -0.7°C  
 Corrected Temp: -0.4°C  
 Sample Condition: Cool Intact [X] Yes [ ] No [ ]  
 Checked By: [Signature]  
 Turnaround Time: #140 Standard [X] Rush [ ]  
 Bacteria (only) Sample Condition: Cool Intact [X] Yes [ ] No [ ]  
 Corrected Temp: [Blank]

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





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

---

February 27, 2025

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

RE: BIG EDDY UNIT 248H

Enclosed are the results of analyses for samples received by the laboratory on 02/24/25 12:30.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

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:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 88 SURFACE (H251072-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2025	ND	2.06	103	2.00	0.0715	
Toluene*	<0.050	0.050	02/27/2025	ND	2.10	105	2.00	0.0321	
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.99	99.4	2.00	0.272	
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.83	97.1	6.00	0.296	
Total BTEX	<0.300	0.300	02/27/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.0 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/25/2025	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	02/25/2025	ND	189	94.4	200	3.99	
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	186	93.0	200	4.86	
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND					

Surrogate: 1-Chlorooctane 85.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.2 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 87 SURFACE (H251072-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2025	ND	2.06	103	2.00	0.0715	
Toluene*	<0.050	0.050	02/27/2025	ND	2.10	105	2.00	0.0321	
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.99	99.4	2.00	0.272	
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.83	97.1	6.00	0.296	
Total BTEX	<0.300	0.300	02/27/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.6 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/25/2025	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	02/25/2025	ND	189	94.4	200	3.99	
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	186	93.0	200	4.86	
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND					

Surrogate: 1-Chlorooctane 93.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.9 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 86 SURFACE (H251072-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2025	ND	2.06	103	2.00	0.0715	
Toluene*	<0.050	0.050	02/27/2025	ND	2.10	105	2.00	0.0321	
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.99	99.4	2.00	0.272	
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.83	97.1	6.00	0.296	
Total BTEX	<0.300	0.300	02/27/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/25/2025	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	02/25/2025	ND	189	94.4	200	3.99	
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	186	93.0	200	4.86	
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND					

Surrogate: 1-Chlorooctane 87.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.2 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 85 SURFACE (H251072-04)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2025	ND	1.88	93.9	2.00	0.883		
Toluene*	<0.050	0.050	02/27/2025	ND	1.95	97.5	2.00	1.16		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.88	94.0	2.00	1.15		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.50	91.7	6.00	1.21		
Total BTEX	<0.300	0.300	02/27/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/25/2025	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	02/25/2025	ND	189	94.4	200	3.99		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	186	93.0	200	4.86		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 96.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.5 % 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.

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: 02/24/2025  
 Reported: 02/27/2025  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62085-103.83132

Sampling Date: 02/21/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: CS 81 SURFACE (H251072-05)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2025	ND	1.88	93.9	2.00	0.883		
Toluene*	<0.050	0.050	02/27/2025	ND	1.95	97.5	2.00	1.16		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.88	94.0	2.00	1.15		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.50	91.7	6.00	1.21		
Total BTEX	<0.300	0.300	02/27/2025	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	02/25/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	189	94.4	200	3.99		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	186	93.0	200	4.86		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 88.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.8 % 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.

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:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 82 SURFACE (H251072-06)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2025	ND	1.88	93.9	2.00	0.883		
Toluene*	<0.050	0.050	02/27/2025	ND	1.95	97.5	2.00	1.16		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.88	94.0	2.00	1.15		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.50	91.7	6.00	1.21		
Total BTEX	<0.300	0.300	02/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.9 % 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	
Chloride	32.0	16.0	02/25/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	189	94.4	200	3.99		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	186	93.0	200	4.86		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 88.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.9 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 84 SURFACE (H251072-07)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2025	ND	1.88	93.9	2.00	0.883		
Toluene*	<0.050	0.050	02/27/2025	ND	1.95	97.5	2.00	1.16		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.88	94.0	2.00	1.15		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.50	91.7	6.00	1.21		
Total BTEX	<0.300	0.300	02/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 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	02/25/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	189	94.4	200	3.99		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	186	93.0	200	4.86		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 94.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.7 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 83 SURFACE (H251072-08)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2025	ND	1.88	93.9	2.00	0.883		
Toluene*	<0.050	0.050	02/27/2025	ND	1.95	97.5	2.00	1.16		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.88	94.0	2.00	1.15		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.50	91.7	6.00	1.21		
Total BTEX	<0.300	0.300	02/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.1 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/25/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	189	94.4	200	3.99		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	186	93.0	200	4.86		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 91.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.7 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 80 SURFACE (H251072-09)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2025	ND	1.88	93.9	2.00	0.883		
Toluene*	<0.050	0.050	02/27/2025	ND	1.95	97.5	2.00	1.16		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.88	94.0	2.00	1.15		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.50	91.7	6.00	1.21		
Total BTEX	<0.300	0.300	02/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.4 % 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	48.0	16.0	02/25/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	189	94.4	200	3.99		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	186	93.0	200	4.86		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 83.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.0 % 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.

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:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 79 SURFACE (H251072-10)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2025	ND	1.88	93.9	2.00	0.883		
Toluene*	<0.050	0.050	02/27/2025	ND	1.95	97.5	2.00	1.16		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.88	94.0	2.00	1.15		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.50	91.7	6.00	1.21		
Total BTEX	<0.300	0.300	02/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.2 % 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	64.0	16.0	02/25/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	189	94.4	200	3.99		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	186	93.0	200	4.86		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 81.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.6 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 78 SURFACE (H251072-11)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2025	ND	1.88	93.9	2.00	0.883		
Toluene*	<0.050	0.050	02/27/2025	ND	1.95	97.5	2.00	1.16		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.88	94.0	2.00	1.15		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.50	91.7	6.00	1.21		
Total BTEX	<0.300	0.300	02/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.8 % 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	
Chloride	32.0	16.0	02/25/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	189	94.4	200	3.99		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	186	93.0	200	4.86		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 84.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.1 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 77 SURFACE (H251072-12)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2025	ND	1.88	93.9	2.00	0.883		
Toluene*	<0.050	0.050	02/27/2025	ND	1.95	97.5	2.00	1.16		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.88	94.0	2.00	1.15		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.50	91.7	6.00	1.21		
Total BTEX	<0.300	0.300	02/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.4 % 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	02/25/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	189	94.4	200	3.99		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	186	93.0	200	4.86		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 97.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.0 % 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.

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:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 76 SURFACE (H251072-13)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2025	ND	1.88	93.9	2.00	0.883		
Toluene*	<0.050	0.050	02/27/2025	ND	1.95	97.5	2.00	1.16		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.88	94.0	2.00	1.15		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.50	91.7	6.00	1.21		
Total BTEX	<0.300	0.300	02/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.6 % 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	02/25/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	189	94.4	200	3.99		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	186	93.0	200	4.86		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 91.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.7 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 75 SURFACE (H251072-14)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2025	ND	1.88	93.9	2.00	0.883		
Toluene*	<0.050	0.050	02/27/2025	ND	1.95	97.5	2.00	1.16		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.88	94.0	2.00	1.15		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.50	91.7	6.00	1.21		
Total BTEX	<0.300	0.300	02/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.9 % 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	
Chloride	32.0	16.0	02/25/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	189	94.4	200	3.99		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	186	93.0	200	4.86		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 90.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.6 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 71 SURFACE (H251072-15)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2025	ND	1.88	93.9	2.00	0.883		
Toluene*	<0.050	0.050	02/27/2025	ND	1.95	97.5	2.00	1.16		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.88	94.0	2.00	1.15		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.50	91.7	6.00	1.21		
Total BTEX	<0.300	0.300	02/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 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	02/25/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	189	94.4	200	3.99		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	186	93.0	200	4.86		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 87.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.7 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 70 SURFACE (H251072-16)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2025	ND	1.88	93.9	2.00	0.883		
Toluene*	<0.050	0.050	02/27/2025	ND	1.95	97.5	2.00	1.16		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.88	94.0	2.00	1.15		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.50	91.7	6.00	1.21		
Total BTEX	<0.300	0.300	02/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 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	16.0	16.0	02/25/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	189	94.4	200	3.99		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	186	93.0	200	4.86		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 86.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.7 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 69 SURFACE (H251072-17)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2025	ND	1.88	93.9	2.00	0.883		
Toluene*	<0.050	0.050	02/27/2025	ND	1.95	97.5	2.00	1.16		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.88	94.0	2.00	1.15		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.50	91.7	6.00	1.21		
Total BTEX	<0.300	0.300	02/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 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	32.0	16.0	02/25/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	189	94.4	200	3.99		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	186	93.0	200	4.86		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 85.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.2 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 66 SURFACE (H251072-18)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2025	ND	1.88	93.9	2.00	0.883		
Toluene*	<0.050	0.050	02/27/2025	ND	1.95	97.5	2.00	1.16		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.88	94.0	2.00	1.15		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.50	91.7	6.00	1.21		
Total BTEX	<0.300	0.300	02/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 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	02/25/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	189	94.4	200	3.99		
<b>DRO &gt;C10-C28*</b>	<b>13.2</b>	10.0	02/25/2025	ND	186	93.0	200	4.86		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 88.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.6 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 65 SURFACE (H251072-19)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2025	ND	1.88	93.9	2.00	0.883		
Toluene*	<0.050	0.050	02/27/2025	ND	1.95	97.5	2.00	1.16		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.88	94.0	2.00	1.15		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.50	91.7	6.00	1.21		
Total BTEX	<0.300	0.300	02/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.3 % 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>160</b>	16.0	02/25/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	189	94.4	200	3.99		
<b>DRO &gt;C10-C28*</b>	<b>85.7</b>	10.0	02/25/2025	ND	186	93.0	200	4.86		
<b>EXT DRO &gt;C28-C36</b>	<b>10.2</b>	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 92.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.0 % 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.

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:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 64 SURFACE (H251072-20)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2025	ND	1.88	93.9	2.00	0.883		
Toluene*	<0.050	0.050	02/27/2025	ND	1.95	97.5	2.00	1.16		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.88	94.0	2.00	1.15		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.50	91.7	6.00	1.21		
Total BTEX	<0.300	0.300	02/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 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	
<b>Chloride</b>	<b>32.0</b>	16.0	02/25/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	189	94.4	200	3.99		
<b>DRO &gt;C10-C28*</b>	<b>10.9</b>	10.0	02/25/2025	ND	186	93.0	200	4.86		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 77.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.1 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 63 SURFACE (H251072-21)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2025	ND	1.88	93.9	2.00	0.883		
Toluene*	<0.050	0.050	02/27/2025	ND	1.95	97.5	2.00	1.16		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.88	94.0	2.00	1.15		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.50	91.7	6.00	1.21		
Total BTEX	<0.300	0.300	02/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.6 % 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	64.0	16.0	02/25/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	195	97.7	200	0.671		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	193	96.3	200	4.81		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 90.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.9 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 61 SURFACE (H251072-22)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2025	ND	1.88	93.9	2.00	0.883		
Toluene*	<0.050	0.050	02/27/2025	ND	1.95	97.5	2.00	1.16		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.88	94.0	2.00	1.15		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.50	91.7	6.00	1.21		
Total BTEX	<0.300	0.300	02/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.1 % 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>64.0</b>	16.0	02/25/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	195	97.7	200	0.671		
<b>DRO &gt;C10-C28*</b>	<b>13.1</b>	10.0	02/25/2025	ND	193	96.3	200	4.81		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 87.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.7 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/24/2025  
 Reported: 02/27/2025  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62085-103.83132

Sampling Date: 02/21/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: CS 59 SURFACE (H251072-23)**

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	02/27/2025	ND	1.88	93.9	2.00	0.883		
Toluene*	<0.050	0.050	02/27/2025	ND	1.95	97.5	2.00	1.16		
Ethylbenzene*	<0.050	0.050	02/27/2025	ND	1.88	94.0	2.00	1.15		
Total Xylenes*	<0.150	0.150	02/27/2025	ND	5.50	91.7	6.00	1.21		
Total BTEX	<0.300	0.300	02/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 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>160</b>	16.0	02/25/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	195	97.7	200	0.671		
<b>DRO &gt;C10-C28*</b>	<b>344</b>	10.0	02/25/2025	ND	193	96.3	200	4.81		
<b>EXT DRO &gt;C28-C36</b>	<b>125</b>	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 99.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 119 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/24/2025  
 Reported: 02/27/2025  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62085-103.83132

Sampling Date: 02/21/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: CS 60 SURFACE (H251072-24)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2025	ND	1.77	88.5	2.00	9.55		
Toluene*	<0.050	0.050	02/26/2025	ND	1.76	88.0	2.00	13.9		
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.67	83.3	2.00	19.3		
Total Xylenes*	<0.150	0.150	02/26/2025	ND	5.17	86.2	6.00	18.0		
Total BTEX	<0.300	0.300	02/26/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	02/25/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	195	97.7	200	0.671		
<b>DRO &gt;C10-C28*</b>	<b>651</b>	10.0	02/25/2025	ND	193	96.3	200	4.81		
<b>EXT DRO &gt;C28-C36</b>	<b>282</b>	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 93.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 55 SURFACE (H251072-25)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2025	ND	1.77	88.5	2.00	9.55		
Toluene*	<0.050	0.050	02/26/2025	ND	1.76	88.0	2.00	13.9		
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.67	83.3	2.00	19.3		
Total Xylenes*	<0.150	0.150	02/26/2025	ND	5.17	86.2	6.00	18.0		
Total BTEX	<0.300	0.300	02/26/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	304	16.0	02/25/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	195	97.7	200	0.671		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	193	96.3	200	4.81		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 93.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.6 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 56 SURFACE (H251072-26)**

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	02/26/2025	ND	1.77	88.5	2.00	9.55		
Toluene*	<0.050	0.050	02/26/2025	ND	1.76	88.0	2.00	13.9		
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.67	83.3	2.00	19.3		
Total Xylenes*	<0.150	0.150	02/26/2025	ND	5.17	86.2	6.00	18.0		
Total BTEX	<0.300	0.300	02/26/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>64.0</b>	16.0	02/25/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	195	97.7	200	0.671		
<b>DRO &gt;C10-C28*</b>	<b>12.4</b>	10.0	02/25/2025	ND	193	96.3	200	4.81		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 93.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.7 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 57 SURFACE (H251072-27)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2025	ND	1.77	88.5	2.00	9.55		
Toluene*	<0.050	0.050	02/26/2025	ND	1.76	88.0	2.00	13.9		
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.67	83.3	2.00	19.3		
Total Xylenes*	<0.150	0.150	02/26/2025	ND	5.17	86.2	6.00	18.0		
Total BTEX	<0.300	0.300	02/26/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>2600</b>	16.0	02/25/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	195	97.7	200	0.671		
<b>DRO &gt;C10-C28*</b>	<b>128</b>	10.0	02/25/2025	ND	193	96.3	200	4.81		
<b>EXT DRO &gt;C28-C36</b>	<b>50.3</b>	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/24/2025  
 Reported: 02/27/2025  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62085-103.83132

Sampling Date: 02/21/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: CS 58 SURFACE (H251072-28)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2025	ND	1.77	88.5	2.00	9.55		
Toluene*	<0.050	0.050	02/26/2025	ND	1.76	88.0	2.00	13.9		
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.67	83.3	2.00	19.3		
Total Xylenes*	<0.150	0.150	02/26/2025	ND	5.17	86.2	6.00	18.0		
Total BTEX	<0.300	0.300	02/26/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	02/25/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	195	97.7	200	0.671		
DRO >C10-C28*	<10.0	10.0	02/25/2025	ND	193	96.3	200	4.81		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 99.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	02/24/2025	Sampling Date:	02/21/2025
Reported:	02/27/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 62 SURFACE (H251072-29)**

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	02/26/2025	ND	1.77	88.5	2.00	9.55		
Toluene*	<0.050	0.050	02/26/2025	ND	1.76	88.0	2.00	13.9		
Ethylbenzene*	<0.050	0.050	02/26/2025	ND	1.67	83.3	2.00	19.3		
Total Xylenes*	<0.150	0.150	02/26/2025	ND	5.17	86.2	6.00	18.0		
Total BTEX	<0.300	0.300	02/26/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>64.0</b>	16.0	02/25/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/25/2025	ND	195	97.7	200	0.671		
<b>DRO &gt;C10-C28*</b>	<b>50.0</b>	10.0	02/25/2025	ND	193	96.3	200	4.81		
EXT DRO >C28-C36	<10.0	10.0	02/25/2025	ND						

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

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

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene

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:  
 Address: 601 N Marland Street, Suite 400  
 City: Midland State: TX Zip: 79701  
 Phone #: 575-937-3906 Fax #: 575-393-2476  
 Project #: 03C155408 Project Owner: XTO Energy  
 Project Name: Big Eddy Unit 248H  
 Project Location: 32.62085,-103.83132  
 Sampler Name: Evan Roe  
 P.O. #: Company: XTO Energy, Inc  
 Attn: Colton Brown  
 Address: 3104 E Greene 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	TPH 8015	BTEX 8021	Chloride 4500
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
HS-1072	88	Surface	C	1	✓							2/21/25	943	✓	✓	✓
	87	Surface	C	1	✓							2/21/25	945	✓	✓	✓
	86	Surface	C	1	✓							2/21/25	949	✓	✓	✓
	85	Surface	C	1	✓							2/21/25	947	✓	✓	✓
	81	Surface	C	1	✓							2/21/25	1003	✓	✓	✓
	82	Surface	C	1	✓							2/21/25	1006	✓	✓	✓
	84	Surface	C	1	✓							2/21/25	1011	✓	✓	✓
	83	Surface	C	1	✓							2/21/25	1021	✓	✓	✓
	80	Surface	C	1	✓							2/21/25	1120	✓	✓	✓
	79	Surface	C	1	✓							2/21/25	1125	✓	✓	✓

PLEASE NOTE: Liability and Damages: Cardinal Laboratories and its employees are not liable for any claims arising out of or in connection with the use of the information provided 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 analysis. 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 in connection with the use of the information provided by the client for the analysis.

Rollinquired By: Evan Roe  
 Received By: Medricomuy  
 Date: 2/23/25  
 Time: 1:30  
 Delivered By: (Circle One)  UPS  Bus  Other:  
 Sample Condition:  Cool  Intact  
 Turnaround Time: 140  Standard  Rush  
 Thermometer ID: 444  
 Turnaround Time: 140  Standard  Rush  
 Bacteria (only)  Yes  No  
 Sample Condition  Observed  Corrected  
 Corrected Temp. °C: 0.4

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



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

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

Company Name: Ensolum, LLC

**BILL TO**

**ANALYSIS REQUEST**

Project Manager:

P.O. #:

Address: 601 N Marthenfeld Street, Suite 400

Company: XTO Energy, Inc

City: Midland

State: TX Zip: 79701

Attn: Colton Brown

Phone #: 575-937-3906

Fax #:

Address: 3104 E Greene St

Project #: 03C155483 **8453**

Project Owner: XTO Energy

City: Carlsbad

Project Name: Big Eddy Unit 248H

State: NM Zip: 88220

Project Location: 32.62085-103.83132

Phone #:

Sampler Name: Evan Roe

Fax #:

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)JUMP	# CONTAINERS	MATRIX						DATE	TIME	TPH 8015	BTEX 8021	Chloride 4500
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
<i>HES1012a</i>	CS 28	Surface	C	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
	CS 77	Surface	C	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
	CS 76	Surface	C	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
	CS 75	Surface	C	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
	CS 71	Surface	C	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
	CS 70	Surface	C	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
	CS 69	Surface	C	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
	CS 66	Surface	C	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
	CS 65	Surface	C	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
	CS 64	Surface	C	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

PLEASE NOTE: Labels and Damages. Cardholder's liability and safety evidence sampling for any data entry and/or other issues is confined to the amount paid by the client for the analysis. All data including those for engineering and any other issues whatsoever shall be entered and verified by Cardinal within 30 days after completion of the applicable analysis. 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 any other party, arising out of or related to the performance of services provided by Cardinal, regardless of whether such claim is based upon any of the above stated limitations or otherwise.

Relinquished By: *Evan R*  
Date: *2/24/25*  
Time: *1330*

Received By: *Speckrigmy*  
Date: \_\_\_\_\_  
Time: \_\_\_\_\_

Verbal Result:  Yes  No  Add'l Phone #:  
All Results are emailed. Please provide Email address:  
BReilly@ensolum.com, TMorrissey@ensolum.com, THillard@ensolum.com

Delivered By: (Circle One)  Temperature: *-0.7°C* Sample Condition:  Cool  Intact  Yes  No  
Sampler - UPS - Bus - Other: *0.4°C*  Yes  No  
CHECKED BY: *[Signature]*  
Turnaround Time: *10.3* Standard  Add'l Phone #:  
Thermometer ID: *#140*  *#44*  *#45*  
Corrected Temp. °C: *-0.5°C* Bacteria (only) Sample Condition:  Cool  Intact  Yes  No  
Corrected Temp. °C:  Yes  No

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



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:  
 Address: 601 N Marlenfield Street, Suite 400  
 City: Midland State: TX Zip: 79701  
 Phone #: 575-937-3906 Fax #: 575-937-3906  
 Project #: 03C155480 Project Owner: XTO Energy  
 Project Name: Big Eddy Unit 248H  
 Project Location: 32.62085,-103.83132  
 Sampler Name: Evan Roe  
 P.O. #: Company: XTO Energy, Inc  
 Attn: Colton Brown  
 Address: 3104 E Greene 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	TPH 8015	BTEX 8021	Chloride 4500
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:					
Hes1072	CS 63	Surface	C	1	✓						2/21/25	1244	✓	✓	✓
	CS 61	Surface	C	1	✓						2/21/25	1255	✓	✓	✓
	CS 59	Surface	C	1	✓						2/21/25	1347	✓	✓	✓
	CS 60	Surface	C	1	✓						2/21/25	1353	✓	✓	✓
	CS 55	Surface	C	1	✓						2/21/25	1356	✓	✓	✓
	CS 56	Surface	C	1	✓						2/21/25	1403	✓	✓	✓
	CS 57	Surface	C	1	✓						2/21/25	1444	✓	✓	✓
	CS 58	Surface	C	1	✓						2/21/25	1444	✓	✓	✓
	CS 62	Surface	C	1	✓						2/21/25	1250	✓	✓	✓

PLEASE NOTE: Labels and Damages, Cardinal's liability and safety enclosure records for production activity are stored in a central system, shall be made available to the client for the duration of the project. All claims including those for negligence and any other claims whatsoever shall be directed against 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 interruption, 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 rendered by Cardinal, regardless of whether such claim is based upon any of the above stated conditions or otherwise.

Relinquished By: Evan Roe Date: 2/24/25 Received By: Speed Rigney  
 Relinquished By: Evan Roe Date: 1/23/20 Received By: Speed Rigney

Delivered By: (Circle One)  Corrected Temp.  Cool  Intact  Yes  No  No  No  
 Sampler - UPS - Bus - Other: UPS  
 Turnaround Time: 0-7 Standard   
 Thermometer ID: 4443 Kush  
 Bacteria (only) Sample Condition:  Cool  Intact  Yes  No  No  No  No  
 Corrected Temp. °C: 5.04



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

---

March 11, 2025

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BIG EDDY UNIT 248H & 249H

Enclosed are the results of analyses for samples received by the laboratory on 03/10/25 12:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](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  
 TRACY HILLARD  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	03/10/2025	Sampling Date:	03/07/2025
Reported:	03/11/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 06 2.5' (H251384-01)**

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	03/10/2025	ND	2.00	99.9	2.00	4.27	
Toluene*	<0.050	0.050	03/10/2025	ND	2.17	108	2.00	0.711	
Ethylbenzene*	<0.050	0.050	03/10/2025	ND	2.31	116	2.00	2.33	
Total Xylenes*	<0.150	0.150	03/10/2025	ND	7.29	121	6.00	5.04	
Total BTEX	<0.300	0.300	03/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 136 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	03/11/2025	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/10/2025	ND	197	98.7	200	3.03	
DRO >C10-C28*	<10.0	10.0	03/10/2025	ND	195	97.4	200	5.13	
EXT DRO >C28-C36	<10.0	10.0	03/10/2025	ND					

Surrogate: 1-Chlorooctane 104 % 44.4-145

Surrogate: 1-Chlorooctadecane 109 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/10/2025	Sampling Date:	03/07/2025
Reported:	03/11/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 07 2.5' (H251384-02)**

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	03/10/2025	ND	2.00	99.9	2.00	4.27	
Toluene*	<0.050	0.050	03/10/2025	ND	2.17	108	2.00	0.711	
Ethylbenzene*	<0.050	0.050	03/10/2025	ND	2.31	116	2.00	2.33	
Total Xylenes*	<0.150	0.150	03/10/2025	ND	7.29	121	6.00	5.04	
Total BTEX	<0.300	0.300	03/10/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	03/11/2025	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/10/2025	ND	197	98.7	200	3.03	
DRO >C10-C28*	<10.0	10.0	03/10/2025	ND	195	97.4	200	5.13	
EXT DRO >C28-C36	<10.0	10.0	03/10/2025	ND					

Surrogate: 1-Chlorooctane 98.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 104 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/10/2025	Sampling Date:	03/07/2025
Reported:	03/11/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 16 2' (H251384-03)**

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	03/10/2025	ND	2.00	99.9	2.00	4.27		
Toluene*	<0.050	0.050	03/10/2025	ND	2.17	108	2.00	0.711		
Ethylbenzene*	<0.050	0.050	03/10/2025	ND	2.31	116	2.00	2.33		
Total Xylenes*	<0.150	0.150	03/10/2025	ND	7.29	121	6.00	5.04		
Total BTEX	<0.300	0.300	03/10/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 124 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>160</b>	16.0	03/11/2025	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/10/2025	ND	197	98.7	200	3.03		
<b>DRO &gt;C10-C28*</b>	<b>20.0</b>	10.0	03/10/2025	ND	195	97.4	200	5.13		
EXT DRO >C28-C36	<10.0	10.0	03/10/2025	ND						

Surrogate: 1-Chlorooctane 100 % 44.4-145

Surrogate: 1-Chlorooctadecane 105 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/10/2025	Sampling Date:	03/07/2025
Reported:	03/11/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 17 2' (H251384-04)**

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	03/10/2025	ND	2.00	99.9	2.00	4.27		
Toluene*	<0.050	0.050	03/10/2025	ND	2.17	108	2.00	0.711		
Ethylbenzene*	<0.050	0.050	03/10/2025	ND	2.31	116	2.00	2.33		
Total Xylenes*	<0.150	0.150	03/10/2025	ND	7.29	121	6.00	5.04		
Total BTEX	<0.300	0.300	03/10/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 130 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	03/11/2025	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/10/2025	ND	197	98.7	200	3.03		
DRO >C10-C28*	<10.0	10.0	03/10/2025	ND	195	97.4	200	5.13		
EXT DRO >C28-C36	<10.0	10.0	03/10/2025	ND						

Surrogate: 1-Chlorooctane 105 % 44.4-145

Surrogate: 1-Chlorooctadecane 109 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/10/2025	Sampling Date:	03/07/2025
Reported:	03/11/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 18 2' (H251384-05)**

BTEX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/10/2025	ND	2.00	99.9	2.00	4.27	
Toluene*	<0.050	0.050	03/10/2025	ND	2.17	108	2.00	0.711	
Ethylbenzene*	<0.050	0.050	03/10/2025	ND	2.31	116	2.00	2.33	
Total Xylenes*	<0.150	0.150	03/10/2025	ND	7.29	121	6.00	5.04	
Total BTEX	<0.300	0.300	03/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 135 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	03/11/2025	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/10/2025	ND	197	98.7	200	3.03	
DRO >C10-C28*	<10.0	10.0	03/10/2025	ND	195	97.4	200	5.13	
EXT DRO >C28-C36	<10.0	10.0	03/10/2025	ND					

Surrogate: 1-Chlorooctane 107 % 44.4-145

Surrogate: 1-Chlorooctadecane 110 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/10/2025	Sampling Date:	03/07/2025
Reported:	03/11/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 19 2' (H251384-06)**

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	03/10/2025	ND	2.00	99.9	2.00	4.27		
Toluene*	<0.050	0.050	03/10/2025	ND	2.17	108	2.00	0.711		
Ethylbenzene*	<0.050	0.050	03/10/2025	ND	2.31	116	2.00	2.33		
Total Xylenes*	<0.150	0.150	03/10/2025	ND	7.29	121	6.00	5.04		
Total BTEX	<0.300	0.300	03/10/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	03/11/2025	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/10/2025	ND	197	98.7	200	3.03		
DRO >C10-C28*	<10.0	10.0	03/10/2025	ND	195	97.4	200	5.13		
EXT DRO >C28-C36	<10.0	10.0	03/10/2025	ND						

Surrogate: 1-Chlorooctane 94.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 98.3 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/10/2025	Sampling Date:	03/07/2025
Reported:	03/11/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 20 2' (H251384-07)**

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	03/10/2025	ND	2.00	99.9	2.00	4.27		
Toluene*	<0.050	0.050	03/10/2025	ND	2.17	108	2.00	0.711		
Ethylbenzene*	<0.050	0.050	03/10/2025	ND	2.31	116	2.00	2.33		
Total Xylenes*	<0.150	0.150	03/10/2025	ND	7.29	121	6.00	5.04		
Total BTEX	<0.300	0.300	03/10/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 124 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>112</b>	16.0	03/11/2025	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/10/2025	ND	197	98.7	200	3.03		
<b>DRO &gt;C10-C28*</b>	<b>29.2</b>	10.0	03/10/2025	ND	195	97.4	200	5.13		
EXT DRO >C28-C36	<10.0	10.0	03/10/2025	ND						

Surrogate: 1-Chlorooctane 102 % 44.4-145

Surrogate: 1-Chlorooctadecane 107 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/10/2025	Sampling Date:	03/07/2025
Reported:	03/11/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 21 2' (H251384-08)**

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	03/10/2025	ND	2.00	99.9	2.00	4.27		
Toluene*	<0.050	0.050	03/10/2025	ND	2.17	108	2.00	0.711		
Ethylbenzene*	<0.050	0.050	03/10/2025	ND	2.31	116	2.00	2.33		
Total Xylenes*	<0.150	0.150	03/10/2025	ND	7.29	121	6.00	5.04		
Total BTEX	<0.300	0.300	03/10/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 133 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	03/11/2025	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/10/2025	ND	197	98.7	200	3.03		
DRO >C10-C28*	<10.0	10.0	03/10/2025	ND	195	97.4	200	5.13		
EXT DRO >C28-C36	<10.0	10.0	03/10/2025	ND						

Surrogate: 1-Chlorooctane 104 % 44.4-145

Surrogate: 1-Chlorooctadecane 108 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/10/2025	Sampling Date:	03/07/2025
Reported:	03/11/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 22 2' (H251384-09)**

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	03/10/2025	ND	2.00	99.9	2.00	4.27	
Toluene*	<0.050	0.050	03/10/2025	ND	2.17	108	2.00	0.711	
Ethylbenzene*	<0.050	0.050	03/10/2025	ND	2.31	116	2.00	2.33	
Total Xylenes*	<0.150	0.150	03/10/2025	ND	7.29	121	6.00	5.04	
Total BTEX	<0.300	0.300	03/10/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 127 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/11/2025	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/10/2025	ND	197	98.7	200	3.03	
DRO >C10-C28*	<10.0	10.0	03/10/2025	ND	195	97.4	200	5.13	
EXT DRO >C28-C36	<10.0	10.0	03/10/2025	ND					

Surrogate: 1-Chlorooctane 101 % 44.4-145

Surrogate: 1-Chlorooctadecane 106 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/10/2025	Sampling Date:	03/07/2025
Reported:	03/11/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 23 2' (H251384-10)**

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	03/10/2025	ND	2.00	99.9	2.00	4.27		
Toluene*	<0.050	0.050	03/10/2025	ND	2.17	108	2.00	0.711		
Ethylbenzene*	<0.050	0.050	03/10/2025	ND	2.31	116	2.00	2.33		
Total Xylenes*	<0.150	0.150	03/10/2025	ND	7.29	121	6.00	5.04		
Total BTEX	<0.300	0.300	03/10/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 132 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	03/11/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/10/2025	ND	197	98.7	200	3.03		
DRO >C10-C28*	<10.0	10.0	03/10/2025	ND	195	97.4	200	5.13		
EXT DRO >C28-C36	<10.0	10.0	03/10/2025	ND						

Surrogate: 1-Chlorooctane 106 % 44.4-145

Surrogate: 1-Chlorooctadecane 111 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/10/2025	Sampling Date:	03/07/2025
Reported:	03/11/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 24 2' (H251384-11)**

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	03/10/2025	ND	2.00	99.9	2.00	4.27		
Toluene*	<0.050	0.050	03/10/2025	ND	2.17	108	2.00	0.711		
Ethylbenzene*	<0.050	0.050	03/10/2025	ND	2.31	116	2.00	2.33		
Total Xylenes*	<0.150	0.150	03/10/2025	ND	7.29	121	6.00	5.04		
Total BTEX	<0.300	0.300	03/10/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 127 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	03/11/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/10/2025	ND	197	98.7	200	3.03		
DRO >C10-C28*	<10.0	10.0	03/10/2025	ND	195	97.4	200	5.13		
EXT DRO >C28-C36	<10.0	10.0	03/10/2025	ND						

Surrogate: 1-Chlorooctane 91.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 97.3 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/10/2025	Sampling Date:	03/07/2025
Reported:	03/11/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 25 2' (H251384-12)**

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	03/10/2025	ND	2.00	99.9	2.00	4.27		
Toluene*	<0.050	0.050	03/10/2025	ND	2.17	108	2.00	0.711		
Ethylbenzene*	<0.050	0.050	03/10/2025	ND	2.31	116	2.00	2.33		
Total Xylenes*	<0.150	0.150	03/10/2025	ND	7.29	121	6.00	5.04		
Total BTEX	<0.300	0.300	03/10/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 132 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	03/11/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/10/2025	ND	197	98.7	200	3.03		
DRO >C10-C28*	<10.0	10.0	03/10/2025	ND	195	97.4	200	5.13		
EXT DRO >C28-C36	<10.0	10.0	03/10/2025	ND						

Surrogate: 1-Chlorooctane 92.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 97.6 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/10/2025	Sampling Date:	03/07/2025
Reported:	03/11/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 26 2' (H251384-13)**

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	03/10/2025	ND	2.00	99.9	2.00	4.27		
Toluene*	<0.050	0.050	03/10/2025	ND	2.17	108	2.00	0.711		
Ethylbenzene*	<0.050	0.050	03/10/2025	ND	2.31	116	2.00	2.33		
Total Xylenes*	<0.150	0.150	03/10/2025	ND	7.29	121	6.00	5.04		
Total BTEX	<0.300	0.300	03/10/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 128 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	03/11/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/10/2025	ND	197	98.7	200	3.03		
DRO >C10-C28*	<10.0	10.0	03/10/2025	ND	195	97.4	200	5.13		
EXT DRO >C28-C36	<10.0	10.0	03/10/2025	ND						

Surrogate: 1-Chlorooctane 91.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 94.9 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/10/2025	Sampling Date:	03/07/2025
Reported:	03/11/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 27 2' (H251384-14)**

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	03/10/2025	ND	2.00	99.9	2.00	4.27		
Toluene*	<0.050	0.050	03/10/2025	ND	2.17	108	2.00	0.711		
Ethylbenzene*	<0.050	0.050	03/10/2025	ND	2.31	116	2.00	2.33		
Total Xylenes*	<0.150	0.150	03/10/2025	ND	7.29	121	6.00	5.04		
Total BTEX	<0.300	0.300	03/10/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 128 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	03/11/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/10/2025	ND	197	98.7	200	3.03		
DRO >C10-C28*	<10.0	10.0	03/10/2025	ND	195	97.4	200	5.13		
EXT DRO >C28-C36	<10.0	10.0	03/10/2025	ND						

Surrogate: 1-Chlorooctane 87.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 91.6 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
\*\* Samples not received at proper temperature of 6°C or below.
\*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Ensolum, LLC  
 Project Manager: Tracy Hillard  
 Address: 3122 National Parks Hwy  
 City: Carlsbad State: NM Zip: 88220  
 Phone #: 575-937-3906 Fax #:  
 Project #: 03C1559453 & 03C1559587 Project Owner: XTO  
 Project Name: Big Eddy Unit 248 H & 249H  
 Project Location: 32.62085,-103.83132  
 Sampler Name: Jesse Dorman  
 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.	Sample Depth (feet)	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX							DATE	TIME	BTEX	TPH	CHLORIDE
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE					
H251384	F506	2.5'	C	1								5/7/25	11:00			
	F507	2.5'	C	1								11:05				
	F516	2.5'	C	1								11:10				
	F517	2.5'	C	1								11:15				
	F518	2.5'	C	1								11:40				
	F519	2.5'	C	1								11:45				
	F520	2.5'	C	1								11:50				
	F521	2.5'	C	1								11:55				
	F522	2.5'	C	1								13:10				
	F523	2.5'	C	1								13:15				

PLEASE NOTE: Lability and Damages: Customer liability and other's vehicles proceed by any claim arising within stated in contract or bill, shall be stated to the amount paid by the client for the analysis. All claims including those for negligence and any other claim whatsoever shall be deemed waived unless made by writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for negligence or consequential damages, including without limitation, business interruptions, loss of data, or loss of profits, incurred by client, its subsidiaries, affiliates or subcontractors arising out of or related to the performance of services rendered by Cardinal, regardless of whether such claim is based upon any of the above stated theories or otherwise.

Retinquished By: [Signature]  
 Date: 5/10/25  
 Time: 12:45  
 Received By: [Signature]  
 Date: [Signature]  
 Time: [Signature]

Delivered By: (Circle One) UPS  Bus - Other:   
 Corrected Temp. °C: 41.6  
 Sample Condition: Cool  Intact   
 Checked By: [Signature]  
 Turnaround Time: Standard  Rush   
 Bacteria (only)  Sample Condition: Cool  Intact   
 Corrected Temp. °C: 41.6

FORM 006-R 3-27-00/1/21  
† Cardinal cannot accept verbal changes. Please email changes to celsey.keene@cardinallabsnm.com



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

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

2

Company Name: Ensolum, LLC Project Manager: Tracy Hillard Address: 3122 National Parks Hwy City: Carlsbad State: NM Zip: 88220 Phone #: 575-937-3906 Fax #: _____ Project #: 03C1559453 & 03C1558687 Project Owner: XTO Project Name: Big Eddy Unit 248 H & 249H Project Location: 32.62085, -103.83132 Sampler Name: Jesse Dorman				<b>BILL TO</b> P.O. #: _____ Company: XTO Energy Inc. Attn: Colton Brown Address: 3104 E. Green St. City: Carlsbad State: NM Zip: 88220 Phone #: _____ Fax #: _____						
Delivered By: (Circle One) <input checked="" type="checkbox"/> Temperature: 4.3 Sampler - UPS - Bus - Other: _____ Corrected Temp: 4.4				Sample Condition: <input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No						
Relinquished By: _____ Date: _____ Time: _____ Received By: _____ Date: 5-10-25 Time: 1345				CHECKED BY: (Initials) <b>YO</b>						
REMARKS: Cost Center: 1140201001 Incident ID: NAPP2418043567, nAPP2432147637, NAPP2432531235, NAPP2502042071 All Results are emailed. Please provide Email address: T.Hillard@ensolum.com BBE@ensolum.com TMorrissey@ensolum.com kthomasor@ensolum.com				Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #: _____ Turnaround Time: #140 Standard <input type="checkbox"/> Bacteria (only) Sample Condition Rush <input checked="" type="checkbox"/> Cool Intact Observed Temp: °C Thermonet ID: #103624W Yes <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No Corrected Temp: °C <b>YO - 3/10/25</b>						
PLEASE NOTE: Safety and Hazmat procedures must be followed for any items being analyzed. Containers must be labeled to the maximum extent possible. All data including flow for regulatory and any other data submitted shall be checked and verified by Cardinal before any analysis is performed. No items shall be analyzed for incident or compliance purposes, including without limitation, business transactions, loss of care, or loss of profit incurred by client as a result of any analysis performed by Cardinal Laboratories. Business transactions, loss of care, or loss of profit incurred by client as a result of any analysis performed by Cardinal Laboratories shall be the responsibility of the client. A label on any of the above listed samples or containers.										
Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX	PRESERV	SAMPLING	BTEX	TPH	CHLORIDE
AB51384	F524	2'	↓	1	GROUNDWATER	ICE / COOL	DATE	TIME		
	F525	1'	↓	1	WASTEWATER		3/12/25	1320		
	F526	1'	↓	1	SOIL		3/12/25	1345		
	F527	1'	↓	1	OIL		3/12/25	1350		
					SLUDGE					
					OTHER:					
					ACID/BASE:					
					OTHER:					

FORM 006 R 3.2 10/07/21  
 Cardinal cannot accept verbal changes. Please email changes to cole.y.keene@cardinallabsnm.com



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

---

March 12, 2025

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BIG EDDY UNIT 248H & 249H

Enclosed are the results of analyses for samples received by the laboratory on 03/11/25 15:15.

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,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/11/2025	Sampling Date:	03/10/2025
Reported:	03/12/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: SW 01 0-2' (H251425-01)**

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	03/11/2025	ND	2.00	99.9	2.00	2.01	
Toluene*	<0.050	0.050	03/11/2025	ND	2.11	105	2.00	3.27	
Ethylbenzene*	<0.050	0.050	03/11/2025	ND	2.07	103	2.00	3.67	
Total Xylenes*	<0.150	0.150	03/11/2025	ND	6.06	101	6.00	3.84	
Total BTEX	<0.300	0.300	03/11/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	03/12/2025	ND	464	116	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/11/2025	ND	193	96.4	200	12.4	
DRO >C10-C28*	<10.0	10.0	03/11/2025	ND	187	93.4	200	10.0	
EXT DRO >C28-C36	<10.0	10.0	03/11/2025	ND					

Surrogate: 1-Chlorooctane 89.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 85.4 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/11/2025	Sampling Date:	03/10/2025
Reported:	03/12/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: SW 02 0-2' (H251425-02)**

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	03/11/2025	ND	2.00	99.9	2.00	2.01	
Toluene*	<0.050	0.050	03/11/2025	ND	2.11	105	2.00	3.27	
Ethylbenzene*	<0.050	0.050	03/11/2025	ND	2.07	103	2.00	3.67	
Total Xylenes*	<0.150	0.150	03/11/2025	ND	6.06	101	6.00	3.84	
Total BTEX	<0.300	0.300	03/11/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/12/2025	ND	464	116	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/11/2025	ND	193	96.4	200	12.4	
DRO >C10-C28*	<10.0	10.0	03/11/2025	ND	187	93.4	200	10.0	
EXT DRO >C28-C36	<10.0	10.0	03/11/2025	ND					

Surrogate: 1-Chlorooctane 93.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.0 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/11/2025	Sampling Date:	03/10/2025
Reported:	03/12/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: SW 03 0-2.5' (H251425-03)**

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	03/11/2025	ND	2.00	99.9	2.00	2.01	
Toluene*	<0.050	0.050	03/11/2025	ND	2.11	105	2.00	3.27	
Ethylbenzene*	<0.050	0.050	03/11/2025	ND	2.07	103	2.00	3.67	
Total Xylenes*	<0.150	0.150	03/11/2025	ND	6.06	101	6.00	3.84	
Total BTEX	<0.300	0.300	03/11/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.5 % 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>112</b>	16.0	03/12/2025	ND	464	116	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/11/2025	ND	193	96.4	200	12.4	
<b>DRO &gt;C10-C28*</b>	<b>23.8</b>	10.0	03/11/2025	ND	187	93.4	200	10.0	
EXT DRO >C28-C36	<10.0	10.0	03/11/2025	ND					

Surrogate: 1-Chlorooctane 81.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 76.6 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/11/2025	Sampling Date:	03/10/2025
Reported:	03/12/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 31 3' (H251425-04)**

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	03/11/2025	ND	2.00	99.9	2.00	2.01		
Toluene*	<0.050	0.050	03/11/2025	ND	2.11	105	2.00	3.27		
Ethylbenzene*	<0.050	0.050	03/11/2025	ND	2.07	103	2.00	3.67		
Total Xylenes*	<0.150	0.150	03/11/2025	ND	6.06	101	6.00	3.84		
Total BTEX	<0.300	0.300	03/11/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.0 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>128</b>	16.0	03/12/2025	ND	464	116	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/11/2025	ND	193	96.4	200	12.4		
<b>DRO &gt;C10-C28*</b>	<b>83.4</b>	10.0	03/11/2025	ND	187	93.4	200	10.0		
<b>EXT DRO &gt;C28-C36</b>	<b>19.1</b>	10.0	03/11/2025	ND						

Surrogate: 1-Chlorooctane 87.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 83.5 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/11/2025	Sampling Date:	03/10/2025
Reported:	03/12/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 40 4' (H251425-05)**

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	03/11/2025	ND	2.00	99.9	2.00	2.01		
Toluene*	<0.050	0.050	03/11/2025	ND	2.11	105	2.00	3.27		
Ethylbenzene*	<0.050	0.050	03/11/2025	ND	2.07	103	2.00	3.67		
Total Xylenes*	<0.150	0.150	03/11/2025	ND	6.06	101	6.00	3.84		
Total BTEX	<0.300	0.300	03/11/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	03/12/2025	ND	464	116	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/11/2025	ND	193	96.4	200	12.4		
DRO >C10-C28*	<10.0	10.0	03/11/2025	ND	187	93.4	200	10.0		
EXT DRO >C28-C36	<10.0	10.0	03/11/2025	ND						

Surrogate: 1-Chlorooctane 91.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 85.2 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/11/2025	Sampling Date:	03/10/2025
Reported:	03/12/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 41 4' (H251425-06)**

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	03/11/2025	ND	2.00	99.9	2.00	2.01		
Toluene*	<0.050	0.050	03/11/2025	ND	2.11	105	2.00	3.27		
Ethylbenzene*	<0.050	0.050	03/11/2025	ND	2.07	103	2.00	3.67		
Total Xylenes*	<0.150	0.150	03/11/2025	ND	6.06	101	6.00	3.84		
Total BTEX	<0.300	0.300	03/11/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.8 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	03/12/2025	ND	464	116	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/11/2025	ND	193	96.4	200	12.4		
DRO >C10-C28*	<10.0	10.0	03/11/2025	ND	187	93.4	200	10.0		
EXT DRO >C28-C36	<10.0	10.0	03/11/2025	ND						

Surrogate: 1-Chlorooctane 84.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 80.0 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/11/2025	Sampling Date:	03/10/2025
Reported:	03/12/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 42 4' (H251425-07)**

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	03/11/2025	ND	2.00	99.9	2.00	2.01		
Toluene*	<0.050	0.050	03/11/2025	ND	2.11	105	2.00	3.27		
Ethylbenzene*	<0.050	0.050	03/11/2025	ND	2.07	103	2.00	3.67		
Total Xylenes*	<0.150	0.150	03/11/2025	ND	6.06	101	6.00	3.84		
Total BTEX	<0.300	0.300	03/11/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.8 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	03/12/2025	ND	464	116	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/11/2025	ND	193	96.4	200	12.4		
DRO >C10-C28*	<10.0	10.0	03/11/2025	ND	187	93.4	200	10.0		
EXT DRO >C28-C36	<10.0	10.0	03/11/2025	ND						

Surrogate: 1-Chlorooctane 88.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 82.6 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

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

Cardinal Laboratories

\*=Accredited Analyte

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

*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Ensolum, LLC  
 Project Manager: Tracy Hillard  
 Address: 3122 National Parks Hwy  
 City: Carlsbad State: NM Zip: 88220  
 Phone #: 575-937-3906 Fax #:   
 Project #: 03C1558453 & 03C1558577 Project Owner: XTO  
 Project Name: Big Eddy Unit 248 H & 249H  
 Project Location: 32.62085, -103.83132  
 Sampler Name: Jesse Dorman

**BILL TO**  
 P.O. #:   
 Company: XTO Energy Inc.  
 Attn: Colton Brown  
 Address: 3104 E. Green St.  
 City: Carlsbad  
 State: NM Zip: 88220  
 Phone #:   
 Fax #:

**ANALYSIS REQUEST**

Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX						DATE	TIME	BTEX	TPH	CHLORIDE
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:					
HS2425	SND-1	0-2'	↓	1							3/10/25	1140			
	SND-2	0-2.5'	↓	1							3/10/25	1145			
	SW03	0-2.5'	↓	1							3/10/25	1150			
	FS31	3'	↓	1							3/10/25	1135			
	FS40	3'	↓	1							3/10/25	1141			
	FS41	3'	↓	1							3/10/25	1144			
	FS42	3'	↓	1							3/10/25	1147			
	SD														

PLEASE NOTE: Leadly and Benzene Carden's safety and client's exclusion remedy for any claim arising whether based in contract or tort, shall be voided by 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 data, or loss of profits incurred by client, its subsidiaries, affiliates or associates arising out of or related to the performance of services rendered by Cardinal. Application of another such claim is based upon any of the above stated releases or provisions.

Relinquished By: *[Signature]* Date: 3/11/25  
 Received By: *Jessica Black* Date: 3/11/25

Delivered By: (Circle One)  Carlsbad Temp: °C 1.8 Sample Condition:  Cool  Intact  
 Sampler: Ups - Bus - Other:  Carlsbad Temp: °C 2.1  Yes  No

Checked By: *[Signature]*

Verbal Result:  Yes  No Add'l Phone #:   
 All Results are emailed. Please provide email address: *[Email]*  
 REMARKS: Cost Center: 1140201001  
 Incident ID: NAPP2418043567, NAPP2432147837, NAPP2432531235, NAPP2502042071  
 Turnaround Time: *3/11/25*  
 Standard  Bacteria (only) Sample Condition   
 Cool Intact:  Yes  No  
 Corrected Temp. °C *2.1*



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

---

March 17, 2025

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BIG EDDY UNIT 248H & 249H

Enclosed are the results of analyses for samples received by the laboratory on 03/14/25 9:22.

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

Received:	03/14/2025	Sampling Date:	03/13/2025
Reported:	03/17/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 34 2' (H251525-01)**

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	03/14/2025	ND	2.09	104	2.00	11.0	
Toluene*	<0.050	0.050	03/14/2025	ND	2.20	110	2.00	6.41	
Ethylbenzene*	<0.050	0.050	03/14/2025	ND	2.34	117	2.00	0.749	
Total Xylenes*	<0.150	0.150	03/14/2025	ND	7.16	119	6.00	0.598	
Total BTEX	<0.300	0.300	03/14/2025	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	03/17/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/14/2025	ND	194	97.2	200	9.16	
<b>DRO &gt;C10-C28*</b>	<b>252</b>	10.0	03/14/2025	ND	183	91.6	200	11.7	
<b>EXT DRO &gt;C28-C36</b>	<b>45.8</b>	10.0	03/14/2025	ND					

Surrogate: 1-Chlorooctane 82.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 83.8 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/14/2025	Sampling Date:	03/13/2025
Reported:	03/17/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 35 2' (H251525-02)**

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	03/14/2025	ND	2.09	104	2.00	11.0	
Toluene*	<0.050	0.050	03/14/2025	ND	2.20	110	2.00	6.41	
Ethylbenzene*	<0.050	0.050	03/14/2025	ND	2.34	117	2.00	0.749	
Total Xylenes*	<0.150	0.150	03/14/2025	ND	7.16	119	6.00	0.598	
Total BTEX	<0.300	0.300	03/14/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	03/17/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/14/2025	ND	194	97.2	200	9.16	
DRO >C10-C28*	<10.0	10.0	03/14/2025	ND	183	91.6	200	11.7	
EXT DRO >C28-C36	<10.0	10.0	03/14/2025	ND					

Surrogate: 1-Chlorooctane 86.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 82.1 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/14/2025	Sampling Date:	03/13/2025
Reported:	03/17/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 36 2' (H251525-03)**

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	03/14/2025	ND	2.09	104	2.00	11.0		
Toluene*	<0.050	0.050	03/14/2025	ND	2.20	110	2.00	6.41		
Ethylbenzene*	<0.050	0.050	03/14/2025	ND	2.34	117	2.00	0.749		
Total Xylenes*	<0.150	0.150	03/14/2025	ND	7.16	119	6.00	0.598		
Total BTEX	<0.300	0.300	03/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 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>160</b>	16.0	03/17/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/14/2025	ND	194	97.2	200	9.16		
<b>DRO &gt;C10-C28*</b>	<b>59.7</b>	10.0	03/14/2025	ND	183	91.6	200	11.7		
EXT DRO >C28-C36	<10.0	10.0	03/14/2025	ND						

Surrogate: 1-Chlorooctane 89.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 86.3 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/14/2025	Sampling Date:	03/13/2025
Reported:	03/17/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 37 2' (H251525-04)**

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	03/14/2025	ND	2.09	104	2.00	11.0		
Toluene*	<0.050	0.050	03/14/2025	ND	2.20	110	2.00	6.41		
Ethylbenzene*	<0.050	0.050	03/14/2025	ND	2.34	117	2.00	0.749		
Total Xylenes*	<0.150	0.150	03/14/2025	ND	7.16	119	6.00	0.598		
Total BTEX	<0.300	0.300	03/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 117 % 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	03/17/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/14/2025	ND	194	97.2	200	9.16		
DRO >C10-C28*	<10.0	10.0	03/14/2025	ND	183	91.6	200	11.7		
EXT DRO >C28-C36	<10.0	10.0	03/14/2025	ND						

Surrogate: 1-Chlorooctane 76.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 71.7 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/14/2025	Sampling Date:	03/13/2025
Reported:	03/17/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 38 2' (H251525-05)**

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	03/14/2025	ND	2.09	104	2.00	11.0	
Toluene*	<0.050	0.050	03/14/2025	ND	2.20	110	2.00	6.41	
Ethylbenzene*	<0.050	0.050	03/14/2025	ND	2.34	117	2.00	0.749	
Total Xylenes*	<0.150	0.150	03/14/2025	ND	7.16	119	6.00	0.598	
Total BTEX	<0.300	0.300	03/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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	03/17/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/14/2025	ND	194	97.2	200	9.16	
DRO >C10-C28*	<10.0	10.0	03/14/2025	ND	183	91.6	200	11.7	
EXT DRO >C28-C36	<10.0	10.0	03/14/2025	ND					

Surrogate: 1-Chlorooctane 81.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 76.6 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/14/2025	Sampling Date:	03/13/2025
Reported:	03/17/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 39 2' (H251525-06)**

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	03/14/2025	ND	2.09	104	2.00	11.0	
Toluene*	<0.050	0.050	03/14/2025	ND	2.20	110	2.00	6.41	
Ethylbenzene*	<0.050	0.050	03/14/2025	ND	2.34	117	2.00	0.749	
Total Xylenes*	<0.150	0.150	03/14/2025	ND	7.16	119	6.00	0.598	
Total BTEX	<0.300	0.300	03/14/2025	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	96.0	16.0	03/17/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/14/2025	ND	194	97.2	200	9.16	
DRO >C10-C28*	<10.0	10.0	03/14/2025	ND	183	91.6	200	11.7	
EXT DRO >C28-C36	<10.0	10.0	03/14/2025	ND					

Surrogate: 1-Chlorooctane 79.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 78.1 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/14/2025	Sampling Date:	03/13/2025
Reported:	03/17/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 53 2' (H251525-07)**

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	03/14/2025	ND	2.09	104	2.00	11.0		
Toluene*	<0.050	0.050	03/14/2025	ND	2.20	110	2.00	6.41		
Ethylbenzene*	<0.050	0.050	03/14/2025	ND	2.34	117	2.00	0.749		
Total Xylenes*	<0.150	0.150	03/14/2025	ND	7.16	119	6.00	0.598		
Total BTEX	<0.300	0.300	03/14/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	03/17/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/14/2025	ND	194	97.2	200	9.16		
DRO >C10-C28*	<10.0	10.0	03/14/2025	ND	183	91.6	200	11.7		
EXT DRO >C28-C36	<10.0	10.0	03/14/2025	ND						

Surrogate: 1-Chlorooctane 83.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.7 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/14/2025	Sampling Date:	03/13/2025
Reported:	03/17/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 56 6' (H251525-08)**

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	03/14/2025	ND	2.09	104	2.00	11.0		
Toluene*	<0.050	0.050	03/14/2025	ND	2.20	110	2.00	6.41		
Ethylbenzene*	<0.050	0.050	03/14/2025	ND	2.34	117	2.00	0.749		
Total Xylenes*	<0.150	0.150	03/14/2025	ND	7.16	119	6.00	0.598		
Total BTEX	<0.300	0.300	03/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 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	368	16.0	03/17/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/14/2025	ND	194	97.2	200	9.16		
DRO >C10-C28*	<10.0	10.0	03/14/2025	ND	183	91.6	200	11.7		
EXT DRO >C28-C36	<10.0	10.0	03/14/2025	ND						

Surrogate: 1-Chlorooctane 73.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 71.4 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/14/2025	Sampling Date:	03/13/2025
Reported:	03/17/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 57 6' (H251525-09)**

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	03/14/2025	ND	2.09	104	2.00	11.0		
Toluene*	<0.050	0.050	03/14/2025	ND	2.20	110	2.00	6.41		
Ethylbenzene*	<0.050	0.050	03/14/2025	ND	2.34	117	2.00	0.749		
Total Xylenes*	<0.150	0.150	03/14/2025	ND	7.16	119	6.00	0.598		
Total BTEX	<0.300	0.300	03/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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	320	16.0	03/17/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/14/2025	ND	194	97.2	200	9.16		
DRO >C10-C28*	<10.0	10.0	03/14/2025	ND	183	91.6	200	11.7		
EXT DRO >C28-C36	<10.0	10.0	03/14/2025	ND						

Surrogate: 1-Chlorooctane 78.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 74.9 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/14/2025	Sampling Date:	03/13/2025
Reported:	03/17/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 58 6' (H251525-10)**

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	03/14/2025	ND	2.09	104	2.00	11.0	
Toluene*	<0.050	0.050	03/14/2025	ND	2.20	110	2.00	6.41	
Ethylbenzene*	<0.050	0.050	03/14/2025	ND	2.34	117	2.00	0.749	
Total Xylenes*	<0.150	0.150	03/14/2025	ND	7.16	119	6.00	0.598	
Total BTEX	<0.300	0.300	03/14/2025	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	176	16.0	03/17/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/14/2025	ND	194	97.2	200	9.16	
DRO >C10-C28*	<10.0	10.0	03/14/2025	ND	183	91.6	200	11.7	
EXT DRO >C28-C36	<10.0	10.0	03/14/2025	ND					

Surrogate: 1-Chlorooctane 85.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 80.9 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

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

Cardinal Laboratories

\*=Accredited Analyte

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

*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



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

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

**Company Name:** Ensolum, LLC  
**Project Manager:** Tracy Hillard  
**Address:** 3122 National Parks Hwy  
**City:** Carlsbad **State:** NM **zip:** 88220  
**Phone #:** 575-937-3906 **Fax #:**  
**Project #:** 03C1558453 & 03C1558577 **Project Owner:** XTO  
**Project Name:** Big Eddy Unit 248 H & 249H  
**Project Location:** 32.62085, -103.83132  
**Sampler Name:** Jesse Dorman  
**FOR LAB USE ONLY**  
**P.O. #:**  
**Company:** XTO Energy Inc.  
**Attn:** Colton Brown  
**Address:** 3104 E. Green St.  
**City:** Carlsbad  
**State:** NM **Zip:** 88220  
**Phone #:**  
**Fax #:**

Lab I.D.	Sample I.D.	Sample Depth (feet)	PRESERV.		DATE	TIME	ANALYSIS REQUEST		
			(G)RAB OR (C)OMP	# CONTAINERS			BTEX	TPH	CHLORIDE
	F5334	2'			3/15/05	8:48			
	F5335	2'				8:50			
	F5336	2'				8:50			
	F5337	2'				8:54			
	F5338	2'				8:55			
	F5339	2'				8:55			
	F5353	6'				12:50			
	F5356	6'				12:52			
	F5357	6'				12:53			
	F5358	6'				12:53			

**FLASK NOTE:** Laundry and Detergent. Containers tightly and correctly sealed. For any cases where samples are not sealed or not sealed to the amount per the label 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 analysis. In no event shall Cardinal be liable for accidental or consequential damages, including without limitation, business interruption, 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 rendered by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

**Relinquished By:** [Signature] **Date:** 3/15/05  
**Received By:** [Signature] **Date:** 3/15/05  
**Relinquished By:** [Signature] **Date:** 3/15/05  
**Received By:** [Signature] **Date:** 3/15/05

**Delivered By:** (Circle One) **Observed Temp. °C:** 42.5  
**Sampler - UPS - Bus - Other:** **Corrected Temp. °C:** 45.5  
**Sample Condition:** Cool  Intact   
**Checked By:** [Signature] **Turnaround Time:** Standard  Rush   
**Thermometer ID:** 41194125 **Standard:** 24 hr   
**Corrected Temp. °C:** **Bacteria (only) Sample Condition:** Cool  Intact   
**Corrected Temp. °C:** **Observed Temp. °C:**



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

---

March 19, 2025

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BIG EDDY UNIT 248H & 249H

Enclosed are the results of analyses for samples received by the laboratory on 03/18/25 13:38.

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

Received:	03/18/2025	Sampling Date:	03/17/2025
Reported:	03/19/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 44 6 (H251580-01)**

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	03/18/2025	ND	1.94	97.0	2.00	1.08		
Toluene*	<0.050	0.050	03/18/2025	ND	2.04	102	2.00	0.572		
Ethylbenzene*	<0.050	0.050	03/18/2025	ND	2.00	99.8	2.00	0.888		
Total Xylenes*	<0.150	0.150	03/18/2025	ND	5.83	97.2	6.00	1.28		
Total BTEX	<0.300	0.300	03/18/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 85.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	03/19/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/18/2025	ND	222	111	200	1.42		
DRO >C10-C28*	<10.0	10.0	03/18/2025	ND	214	107	200	1.54		
EXT DRO >C28-C36	<10.0	10.0	03/18/2025	ND						

Surrogate: 1-Chlorooctane 88.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 86.0 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/18/2025	Sampling Date:	03/17/2025
Reported:	03/19/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 59 4-7' (H251580-02)**

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	03/18/2025	ND	1.94	97.0	2.00	1.08	
Toluene*	<0.050	0.050	03/18/2025	ND	2.04	102	2.00	0.572	
Ethylbenzene*	<0.050	0.050	03/18/2025	ND	2.00	99.8	2.00	0.888	
Total Xylenes*	<0.150	0.150	03/18/2025	ND	5.83	97.2	6.00	1.28	
Total BTEX	<0.300	0.300	03/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 86.2 % 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>752</b>	16.0	03/19/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/18/2025	ND	222	111	200	1.42	
<b>DRO &gt;C10-C28*</b>	<b>36.2</b>	10.0	03/18/2025	ND	214	107	200	1.54	
EXT DRO >C28-C36	<10.0	10.0	03/18/2025	ND					

Surrogate: 1-Chlorooctane 83.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 78.3 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/18/2025	Sampling Date:	03/17/2025
Reported:	03/19/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 60 4-7' (H251580-03)**

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	03/18/2025	ND	1.94	97.0	2.00	1.08	
Toluene*	<0.050	0.050	03/18/2025	ND	2.04	102	2.00	0.572	
Ethylbenzene*	<0.050	0.050	03/18/2025	ND	2.00	99.8	2.00	0.888	
Total Xylenes*	<0.150	0.150	03/18/2025	ND	5.83	97.2	6.00	1.28	
Total BTEX	<0.300	0.300	03/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 86.0 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1550</b>	16.0	03/19/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/18/2025	ND	222	111	200	1.42	
<b>DRO &gt;C10-C28*</b>	<b>87.9</b>	10.0	03/18/2025	ND	214	107	200	1.54	
<b>EXT DRO &gt;C28-C36</b>	<b>25.6</b>	10.0	03/18/2025	ND					

Surrogate: 1-Chlorooctane 88.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.0 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/18/2025	Sampling Date:	03/17/2025
Reported:	03/19/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 61 4-7' (H251580-04)**

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	03/18/2025	ND	1.94	97.0	2.00	1.08	
Toluene*	<0.050	0.050	03/18/2025	ND	2.04	102	2.00	0.572	
Ethylbenzene*	<0.050	0.050	03/18/2025	ND	2.00	99.8	2.00	0.888	
Total Xylenes*	<0.150	0.150	03/18/2025	ND	5.83	97.2	6.00	1.28	
Total BTEX	<0.300	0.300	03/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 86.1 % 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>1330</b>	16.0	03/19/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/18/2025	ND	222	111	200	1.42	
<b>DRO &gt;C10-C28*</b>	<b>499</b>	10.0	03/18/2025	ND	214	107	200	1.54	
<b>EXT DRO &gt;C28-C36</b>	<b>98.3</b>	10.0	03/18/2025	ND					

Surrogate: 1-Chlorooctane 90.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 93.3 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/18/2025	Sampling Date:	03/17/2025
Reported:	03/19/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 47 8 (H251580-05)**

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	03/18/2025	ND	1.94	97.0	2.00	1.08		
Toluene*	<0.050	0.050	03/18/2025	ND	2.04	102	2.00	0.572		
Ethylbenzene*	<0.050	0.050	03/18/2025	ND	2.00	99.8	2.00	0.888		
Total Xylenes*	<0.150	0.150	03/18/2025	ND	5.83	97.2	6.00	1.28		
Total BTEX	<0.300	0.300	03/18/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 86.0 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>320</b>	16.0	03/19/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/18/2025	ND	222	111	200	1.42		
<b>DRO &gt;C10-C28*</b>	<b>13.9</b>	10.0	03/18/2025	ND	214	107	200	1.54		
EXT DRO >C28-C36	<10.0	10.0	03/18/2025	ND						

Surrogate: 1-Chlorooctane 71.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 64.1 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Notes and Definitions**

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

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

**BILL TO** ANALYSIS REQUEST

Company Name: Ensolum, LLC  
 Project Manager: Tracy Hillard  
 Address: 3122 National Parks Hwy  
 City: Carlsbad State: NM Zip: 88220  
 P.O. #: Company: XTO Energy Inc.  
 Attn: Colton Brown  
 Address: 3104 E. Green St.  
 City: Carlsbad  
 State: NM Zip: 88220

City: Carlsbad State: NM Zip: 88220  
 Phone #: 575-937-3906 Fax #:  
 Project #: 03C1558453 & 03C1558577 Project Owner: XTO  
 City: Carlsbad  
 State: NM Zip: 88220  
 Project Name: Big Eddy Unit 248 H & 249H  
 Phone #:  
 Project Location: 32.62085, -103.83132  
 Fax #:  
 Sampler Name: Jesse Dorman

Lab I.D.	Sample I.D.	Sample Depth (feet)	PRESERV		DATE	TIME	ANALYSIS REQUEST		
			(G)RAB OR (C)OMP	# CONTAINERS			BTEX	TPH	CHLORIDE
AS580	FS44	6'	✓	✓	3/17/25	10:25	✓	✓	✓
	FS59	4-7'	✓	✓	12/10	12:15	✓	✓	✓
	FS60	8'	✓	✓	12/15	12:15	✓	✓	✓
	FS61	8'	✓	✓	12/15	12:15	✓	✓	✓
	FS47	5D	✓	✓	12/15	12:15	✓	✓	✓

PLEASE NOTE: Only and samples. Cardiac's utility and card's exclusive remedy for any claim arising from this contract or for any claim arising from the use of the services provided by Cardinal. All claims, including those for negligence and any other claim 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 card, its subsidiaries, affiliates or successors arising out of or related to the performance of services provided by Cardinal, regardless of whether such claim is allowed upon any of the above stated remedies or provisions.

Relinquished By: [Signature]  
 Date: 5-18-25  
 Time: 1:38  
 Received By: [Signature]  
 Date: [Blank]  
 Time: [Blank]

Delivered By: (Circle One)  
 UPS  Other   
 Corrected Temp. °C: 1.3  
 Sample Condition: Cool  Impact   
 Checked By: [Signature]

Remarks: [Blank]

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



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

---

March 19, 2025

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BIG EDDY UNIT 248H & 249H

Enclosed are the results of analyses for samples received by the laboratory on 03/18/25 13:38.

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.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/18/2025	Sampling Date:	03/17/2025
Reported:	03/19/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 64 3' (H251581-01)**

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	03/18/2025	ND	1.94	97.0	2.00	1.08	
Toluene*	<0.050	0.050	03/18/2025	ND	2.04	102	2.00	0.572	
Ethylbenzene*	<0.050	0.050	03/18/2025	ND	2.00	99.8	2.00	0.888	
Total Xylenes*	<0.150	0.150	03/18/2025	ND	5.83	97.2	6.00	1.28	
Total BTEX	<0.300	0.300	03/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 85.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>64.0</b>	16.0	03/19/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/18/2025	ND	222	111	200	1.42	
DRO >C10-C28*	<10.0	10.0	03/18/2025	ND	214	107	200	1.54	
EXT DRO >C28-C36	<10.0	10.0	03/18/2025	ND					

Surrogate: 1-Chlorooctane 69.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 64.7 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/18/2025	Sampling Date:	03/17/2025
Reported:	03/19/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 65 3' (H251581-02)**

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	03/18/2025	ND	1.94	97.0	2.00	1.08	
Toluene*	<0.050	0.050	03/18/2025	ND	2.04	102	2.00	0.572	
Ethylbenzene*	<0.050	0.050	03/18/2025	ND	2.00	99.8	2.00	0.888	
Total Xylenes*	<0.150	0.150	03/18/2025	ND	5.83	97.2	6.00	1.28	
Total BTEX	<0.300	0.300	03/18/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 85.3 % 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	96.0	16.0	03/19/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/18/2025	ND	222	111	200	1.42	
DRO >C10-C28*	<10.0	10.0	03/18/2025	ND	214	107	200	1.54	
EXT DRO >C28-C36	<10.0	10.0	03/18/2025	ND					

Surrogate: 1-Chlorooctane 88.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 81.1 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/18/2025	Sampling Date:	03/17/2025
Reported:	03/19/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 66 3' (H251581-03)**

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	03/18/2025	ND	1.94	97.0	2.00	1.08		
Toluene*	<0.050	0.050	03/18/2025	ND	2.04	102	2.00	0.572		
Ethylbenzene*	<0.050	0.050	03/18/2025	ND	2.00	99.8	2.00	0.888		
Total Xylenes*	<0.150	0.150	03/18/2025	ND	5.83	97.2	6.00	1.28		
Total BTEX	<0.300	0.300	03/18/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 86.0 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	03/19/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/18/2025	ND	222	111	200	1.42		
DRO >C10-C28*	<10.0	10.0	03/18/2025	ND	214	107	200	1.54		
EXT DRO >C28-C36	<10.0	10.0	03/18/2025	ND						

Surrogate: 1-Chlorooctane 88.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 82.1 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/18/2025	Sampling Date:	03/17/2025
Reported:	03/19/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 67 3' (H251581-04)**

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	03/18/2025	ND	1.94	97.0	2.00	1.08		
Toluene*	<0.050	0.050	03/18/2025	ND	2.04	102	2.00	0.572		
Ethylbenzene*	<0.050	0.050	03/18/2025	ND	2.00	99.8	2.00	0.888		
Total Xylenes*	<0.150	0.150	03/18/2025	ND	5.83	97.2	6.00	1.28		
Total BTEX	<0.300	0.300	03/18/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 85.2 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	03/19/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/18/2025	ND	222	111	200	1.42		
DRO >C10-C28*	<10.0	10.0	03/18/2025	ND	214	107	200	1.54		
EXT DRO >C28-C36	<10.0	10.0	03/18/2025	ND						

Surrogate: 1-Chlorooctane 88.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 82.7 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Notes and Definitions**

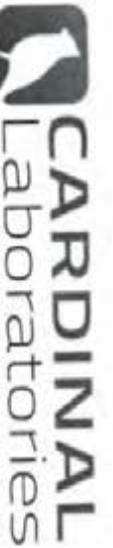
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported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

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

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

Company Name: Ensolum, LLC		P.O. #:	
Project Manager: Tracy Hillard		Company: XTO Energy Inc.	
Address: 3122 National Parks Hwy		Attn: Colton Brown	
City: Carlsbad	State: NM Zip: 88220	Address: 3104 E. Green St.	
Phone #: 575-937-3906	Fax #:	City: Carlsbad	
Project #: 03C1558453 & 03C1558577	Project Owner: XTO	State: NM Zip: 88220	
Project Name: Big Eddy Unit 248 H & 249H		Phone #:	
Project Location: 32.62085, -103.83132		Fax #:	
Sampler Name: Jesse Dorman			

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:					
HS1581	FS64	3'	↓	1							5/17/05	1320	/	/	/
	FS65	↓	↓	1							5/17/05	1330	/	/	/
	FS66	↓	↓	1							5/17/05	1335	/	/	/
	FS67	↓	↓	1							5/17/05	1335	/	/	/

**PLEASE NOTE:** Liability and/or cleanup Contractor liability and costs reduce severely for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the services. 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 for Cardinal. Acceptance of service shall constitute a binding agreement for Cardinal. Receipt of this report shall constitute a binding agreement for Cardinal. Receipt of this report shall constitute a binding agreement for Cardinal.

Retrieved By: <i>[Signature]</i>	Date: 3/18/05	Received By: <i>[Signature]</i>
Retrieved Time: 1338		
Relinquished By: <i>[Signature]</i>	Date:	Received By:
Time:		

Delivered By: (Circle One)	Overhead Temp. °C	1-3	Sample Condition	CHECKED BY: <i>[Signature]</i>
Sampler - UPS - Bus - Other:	Corrected Temp. °C	9.20	Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	(Initials)

Vertical Results:  Yes  No Add'l Phone #:

All Results are emailed. Please provide Email address: *[Email]*

REMARKS: Cool Center: 1140201001

Incident ID: NAPP2418043567, nAPP2432147637, NAPP2432531235, NAPP2502042071

Turnaround Time: Standard

Thermometer ID: 4113

Thermometer Error: 0.5°C

Bacteria (only)  Yes  No

Cool Intact  Yes  No

Sample Condition Observed Temp. °C

Corrected Temp. °C



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

---

March 28, 2025

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BIG EDDY UNIT 248H & 249H

Enclosed are the results of analyses for samples received by the laboratory on 03/24/25 12:15.

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

Received:	03/24/2025	Sampling Date:	03/20/2025
Reported:	03/28/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 68 3' (H251704-01)**

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	03/25/2025	ND	1.92	95.9	2.00	4.60	
Toluene*	<0.050	0.050	03/25/2025	ND	2.00	100	2.00	0.738	
Ethylbenzene*	<0.050	0.050	03/25/2025	ND	1.98	99.0	2.00	3.51	
Total Xylenes*	<0.150	0.150	03/25/2025	ND	6.13	102	6.00	1.89	
Total BTEX	<0.300	0.300	03/25/2025	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/25/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/25/2025	ND	203	102	200	1.94	
DRO >C10-C28*	<10.0	10.0	03/25/2025	ND	195	97.4	200	1.12	
EXT DRO >C28-C36	<10.0	10.0	03/25/2025	ND					

Surrogate: 1-Chlorooctane 75.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 66.3 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/24/2025	Sampling Date:	03/20/2025
Reported:	03/28/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 74 3' (H251704-02)**

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	03/25/2025	ND	1.92	95.9	2.00	4.60		
Toluene*	<0.050	0.050	03/25/2025	ND	2.00	100	2.00	0.738		
Ethylbenzene*	<0.050	0.050	03/25/2025	ND	1.98	99.0	2.00	3.51		
Total Xylenes*	<0.150	0.150	03/25/2025	ND	6.13	102	6.00	1.89		
Total BTEX	<0.300	0.300	03/25/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 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	304	16.0	03/25/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/25/2025	ND	203	102	200	1.94		
DRO >C10-C28*	<10.0	10.0	03/25/2025	ND	195	97.4	200	1.12		
EXT DRO >C28-C36	<10.0	10.0	03/25/2025	ND						

Surrogate: 1-Chlorooctane 83.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 72.5 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Notes and Definitions**

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

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

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

Company Name: Ensolum, LLC

**BILL TO**

**ANALYSIS REQUEST**

Project Manager: Tracy Hillard	P.O. #:
Address: 3122 National Parks Hwy	Company: XTO Energy Inc
City: Carlsbad	Attn: Colton Brown
State: NM	Address: 3104 E Green St
Zip: 88220	City: Carlsbad
Phone #: 575-937-3906	State: NM
Fax #: 575-937-3906	Zip: 88220
Project #: 03C1558453 / 03C1558577	Project Owner: XTO
Project Name: Big Eddy Unit 248H / 249H	State: NM
Project Location: 32.62085, -103.63132	Phone #:
Sampler Name: Alex Ferrell	Fax #:

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	Chlorides	TPH	BTEX		
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :						ACID/BASE:	ICE / COOL
HS17004	1 F568	3	C	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3/29/25	1334	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
	2 F574	3	C	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3/29/25	1507	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
AF																	

PLEASE NOTE: Capacity and Design, Cardinal's facility and don't routinely inventory for any state using either based in contact or not, and be listed by 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 services. It is noted that Cardinal be liable for incidental or consequential damages, including without limitation, business interruption, 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 releases or otherwise.

Relinquished By:	Date: 3/24/25	Received By:	Date: 3/24/25
Delivered By: (Circle One)	Time: 12:15	Checked Temp. °C: 3.8	Sample Condition: <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Leaked
Sampler - UPS - Bus - Other:	Corrected Temp. °C: 4.1	Checked by: [Signature]	Checked by: [Signature]
REMARKS: Incident: NAPP2418043567, NAPP2432147637, NAPP2432531235, NAPP2502042071 Turnaround Time: Standard <input type="checkbox"/> Rush <input checked="" type="checkbox"/> Bacteria (only) Sample Condition: <input type="checkbox"/> Intact <input type="checkbox"/> Observed Temp. °C: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Corrected Temp. °C: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>			

FDRA-006 R.3.2 10/07/21 Cardinal cannot accept verbal changes. Please email changes to caley.keagy@cardinallabsnm.com



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

---

March 28, 2025

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BIG EDDY UNIT 248H & 249H

Enclosed are the results of analyses for samples received by the laboratory on 03/24/25 12:15.

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

Received:	03/24/2025	Sampling Date:	03/21/2025
Reported:	03/28/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 86 3 (H251705-01)**

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	03/25/2025	ND	1.92	95.9	2.00	4.60	
Toluene*	<0.050	0.050	03/25/2025	ND	2.00	100	2.00	0.738	
Ethylbenzene*	<0.050	0.050	03/25/2025	ND	1.98	99.0	2.00	3.51	
Total Xylenes*	<0.150	0.150	03/25/2025	ND	6.13	102	6.00	1.89	
Total BTEX	<0.300	0.300	03/25/2025	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/25/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/25/2025	ND	203	102	200	1.94	
DRO >C10-C28*	<10.0	10.0	03/25/2025	ND	195	97.4	200	1.12	
EXT DRO >C28-C36	<10.0	10.0	03/25/2025	ND					

Surrogate: 1-Chlorooctane 84.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 73.8 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/24/2025	Sampling Date:	03/21/2025
Reported:	03/28/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 105 4 (H251705-02)**

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	03/26/2025	ND	1.92	95.8	2.00	3.41		
Toluene*	<0.050	0.050	03/26/2025	ND	2.07	103	2.00	6.15		
Ethylbenzene*	<0.050	0.050	03/26/2025	ND	2.36	118	2.00	7.49		
Total Xylenes*	<0.150	0.150	03/26/2025	ND	7.07	118	6.00	7.13		
Total BTEX	<0.300	0.300	03/26/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 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	128	16.0	03/25/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/25/2025	ND	203	102	200	1.94		
DRO >C10-C28*	<10.0	10.0	03/25/2025	ND	195	97.4	200	1.12		
EXT DRO >C28-C36	<10.0	10.0	03/25/2025	ND						

Surrogate: 1-Chlorooctane 74.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 64.6 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/24/2025	Sampling Date:	03/21/2025
Reported:	03/28/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 106 4 (H251705-03)**

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	03/26/2025	ND	1.92	95.8	2.00	3.41	
Toluene*	<0.050	0.050	03/26/2025	ND	2.07	103	2.00	6.15	
Ethylbenzene*	<0.050	0.050	03/26/2025	ND	2.36	118	2.00	7.49	
Total Xylenes*	<0.150	0.150	03/26/2025	ND	7.07	118	6.00	7.13	
Total BTEX	<0.300	0.300	03/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 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	03/25/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/25/2025	ND	203	102	200	1.94	
DRO >C10-C28*	<10.0	10.0	03/25/2025	ND	195	97.4	200	1.12	
EXT DRO >C28-C36	<10.0	10.0	03/25/2025	ND					

Surrogate: 1-Chlorooctane 79.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 68.4 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/24/2025	Sampling Date:	03/21/2025
Reported:	03/28/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 107 4 (H251705-04)**

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	03/26/2025	ND	1.92	95.8	2.00	3.41	
Toluene*	<0.050	0.050	03/26/2025	ND	2.07	103	2.00	6.15	
Ethylbenzene*	<0.050	0.050	03/26/2025	ND	2.36	118	2.00	7.49	
Total Xylenes*	<0.150	0.150	03/26/2025	ND	7.07	118	6.00	7.13	
Total BTEX	<0.300	0.300	03/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 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	592	16.0	03/25/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/25/2025	ND	203	102	200	1.94	
DRO >C10-C28*	<10.0	10.0	03/25/2025	ND	195	97.4	200	1.12	
EXT DRO >C28-C36	<10.0	10.0	03/25/2025	ND					

Surrogate: 1-Chlorooctane 77.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 66.9 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	03/24/2025	Sampling Date:	03/21/2025
Reported:	03/28/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 108 4 (H251705-05)**

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	03/26/2025	ND	1.92	95.8	2.00	3.41	
Toluene*	<0.050	0.050	03/26/2025	ND	2.07	103	2.00	6.15	
Ethylbenzene*	<0.050	0.050	03/26/2025	ND	2.36	118	2.00	7.49	
Total Xylenes*	<0.150	0.150	03/26/2025	ND	7.07	118	6.00	7.13	
Total BTEX	<0.300	0.300	03/26/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 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	288	16.0	03/25/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/25/2025	ND	203	102	200	1.94	
DRO >C10-C28*	<10.0	10.0	03/25/2025	ND	195	97.4	200	1.12	
EXT DRO >C28-C36	<10.0	10.0	03/25/2025	ND					

Surrogate: 1-Chlorooctane 80.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 69.6 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Notes and Definitions**

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

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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: 3122 National Parks Hwy  
 City: Carlsbad State: NM Zip: 88220  
 Phone #: 575-937-3906 Fax #:   
 Project #: 03C1558453 / 03C1558577 Project Owner: XTO  
 Project Name: Big Eddy Unit 248H / 249H  
 Project Location: 32.62085, -103.83132  
 Sampler Name: Alex Ferrell  
 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	BTEX
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
H851705	FS 86	3	C	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
	FS 105	4	C	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
	FS 106	4	C	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
	FS 107	4	C	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
	FS 108	4	C	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>									

PLEASE NOTE: Liability and Ensolum's standard liability and other exclusions hereby for any claim arising whether based in contract or tort, shall be governed by the terms and conditions of the applicable service. 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 residential or commercial damages, including without limitation, business interruption, loss of use, or loss of profits incurred by direct or indirect parties or successors arising out of or related to the performance of services hereunder. Cardinal, regardless of whether such claim is based upon any of the above stated exclusions or otherwise.

Retainquished By:   
 Date:   
 Time:   
 Received By:   
 Date:   
 Time:   
 Verbal Result:  Yes  No Add'l Phone #:   
 All Results are emailed. Please provide Email address:   
 THilliard@ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com

Relinquished By:   
 Date: 3:21:38 Received By:   
 Time: 18:15   
 Delivered By: (Circle One)   
 O-Overhead Temp. °C 38 Sample Condition:   
 S-Standard  Intact    
 Sampler - UPS - Bus - Other:   
 Corrected Temp. °C 4.1 Cool Intact    
 No  Yes    
 Checked BY: (Initials)   
 REMARKS: Incident: NAPP2418043567, NAPP2432147637, NAPP2432351235, NAPP2502042071  
 Cost Center: 1140201001  
 Turnaround Time: Standard  Rush   
 Thermometer ID: #140 - 35 - dec    
 Corrected Temp. °C    
 Bacteria (only) Sample Condition:   
 Cool Intact    
 No  Yes    
 Corrected Temp. °C

FORM-006 R.3.2 10/07/21

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



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

---

April 07, 2025

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BIG EDDY UNIT 248H & 249H

Enclosed are the results of analyses for samples received by the laboratory on 04/01/25 13:30.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 109 5' (H251919-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2025	ND	1.97	98.4	2.00	4.78	
Toluene*	<0.050	0.050	04/02/2025	ND	2.03	102	2.00	3.34	
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	2.30	115	2.00	2.60	
Total Xylenes*	<0.150	0.150	04/02/2025	ND	7.04	117	6.00	2.48	
Total BTEX	<0.300	0.300	04/02/2025	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	04/02/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	214	107	200	2.57	
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	204	102	200	0.742	
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND					

Surrogate: 1-Chlorooctane 93.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 89.1 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 110 5' (H251919-02)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/02/2025	ND	1.97	98.4	2.00	4.78		
Toluene*	<0.050	0.050	04/02/2025	ND	2.03	102	2.00	3.34		
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	2.30	115	2.00	2.60		
Total Xylenes*	<0.150	0.150	04/02/2025	ND	7.04	117	6.00	2.48		
Total BTEX	<0.300	0.300	04/02/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 121 % 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	04/02/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	214	107	200	2.57		
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	204	102	200	0.742		
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND						

Surrogate: 1-Chlorooctane 88.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 82.5 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 111 5' (H251919-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2025	ND	1.72	86.0	2.00	17.5	
Toluene*	<0.050	0.050	04/02/2025	ND	1.88	94.2	2.00	12.1	
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	1.96	97.9	2.00	8.74	
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.02	100	6.00	7.85	
Total BTEX	<0.300	0.300	04/02/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 121 % 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	04/02/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	214	107	200	2.57	
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	204	102	200	0.742	
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND					

Surrogate: 1-Chlorooctane 100 % 44.4-145

Surrogate: 1-Chlorooctadecane 97.3 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 114 5' (H251919-04)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/02/2025	ND	1.72	86.0	2.00	17.5		
Toluene*	<0.050	0.050	04/02/2025	ND	1.88	94.2	2.00	12.1		
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	1.96	97.9	2.00	8.74		
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.02	100	6.00	7.85		
Total BTEX	<0.300	0.300	04/02/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 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	352	16.0	04/02/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	214	107	200	2.57		
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	204	102	200	0.742		
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND						

Surrogate: 1-Chlorooctane 90.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 83.1 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 115 5' (H251919-05)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/02/2025	ND	1.72	86.0	2.00	17.5	
Toluene*	<0.050	0.050	04/02/2025	ND	1.88	94.2	2.00	12.1	
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	1.96	97.9	2.00	8.74	
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.02	100	6.00	7.85	
Total BTEX	<0.300	0.300	04/02/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 120 % 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	04/02/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	214	107	200	2.57	
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	204	102	200	0.742	
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND					

Surrogate: 1-Chlorooctane 97.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 92.1 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 116 5' (H251919-06)**

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	04/02/2025	ND	1.72	86.0	2.00	17.5		
Toluene*	<0.050	0.050	04/02/2025	ND	1.88	94.2	2.00	12.1		
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	1.96	97.9	2.00	8.74		
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.02	100	6.00	7.85		
Total BTEX	<0.300	0.300	04/02/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 119 % 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	04/02/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	214	107	200	2.57		
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	204	102	200	0.742		
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND						

Surrogate: 1-Chlorooctane 79.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 75.0 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 117 5' (H251919-07)**

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	04/02/2025	ND	1.72	86.0	2.00	17.5	
Toluene*	<0.050	0.050	04/02/2025	ND	1.88	94.2	2.00	12.1	
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	1.96	97.9	2.00	8.74	
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.02	100	6.00	7.85	
Total BTEX	<0.300	0.300	04/02/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 119 % 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	04/02/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	214	107	200	2.57	
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	204	102	200	0.742	
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND					

Surrogate: 1-Chlorooctane 86.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.8 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 118 5' (H251919-08)**

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	04/02/2025	ND	1.72	86.0	2.00	17.5		
Toluene*	<0.050	0.050	04/02/2025	ND	1.88	94.2	2.00	12.1		
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	1.96	97.9	2.00	8.74		
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.02	100	6.00	7.85		
Total BTEX	<0.300	0.300	04/02/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 117 % 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	48.0	16.0	04/02/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	214	107	200	2.57		
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	204	102	200	0.742		
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND						

Surrogate: 1-Chlorooctane 82.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 76.0 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 119 5' (H251919-09)**

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	04/02/2025	ND	1.72	86.0	2.00	17.5	
Toluene*	<0.050	0.050	04/02/2025	ND	1.88	94.2	2.00	12.1	
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	1.96	97.9	2.00	8.74	
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.02	100	6.00	7.85	
Total BTEX	<0.300	0.300	04/02/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 119 % 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	04/02/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	214	107	200	2.57	
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	204	102	200	0.742	
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND					

Surrogate: 1-Chlorooctane 90.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 83.7 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 120 5' (H251919-10)**

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	04/02/2025	ND	1.72	86.0	2.00	17.5	
Toluene*	<0.050	0.050	04/02/2025	ND	1.88	94.2	2.00	12.1	
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	1.96	97.9	2.00	8.74	
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.02	100	6.00	7.85	
Total BTEX	<0.300	0.300	04/02/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 120 % 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	112	16.0	04/02/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	214	107	200	2.57	
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	204	102	200	0.742	
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND					

Surrogate: 1-Chlorooctane 96.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 89.8 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 121 5' (H251919-11)**

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	04/02/2025	ND	1.72	86.0	2.00	17.5	
Toluene*	<0.050	0.050	04/02/2025	ND	1.88	94.2	2.00	12.1	
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	1.96	97.9	2.00	8.74	
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.02	100	6.00	7.85	
Total BTEX	<0.300	0.300	04/02/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 121 % 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	64.0	16.0	04/02/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	214	107	200	2.57	
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	204	102	200	0.742	
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND					

Surrogate: 1-Chlorooctane 91.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 84.1 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 122 5' (H251919-12)**

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	04/02/2025	ND	1.72	86.0	2.00	17.5	
Toluene*	<0.050	0.050	04/02/2025	ND	1.88	94.2	2.00	12.1	
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	1.96	97.9	2.00	8.74	
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.02	100	6.00	7.85	
Total BTEX	<0.300	0.300	04/02/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 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	04/02/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	214	107	200	2.57	
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	204	102	200	0.742	
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND					

Surrogate: 1-Chlorooctane 79.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 74.4 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 124 5' (H251919-13)**

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	04/02/2025	ND	1.72	86.0	2.00	17.5		
Toluene*	<0.050	0.050	04/02/2025	ND	1.88	94.2	2.00	12.1		
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	1.96	97.9	2.00	8.74		
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.02	100	6.00	7.85		
Total BTEX	<0.300	0.300	04/02/2025	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	352	16.0	04/02/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	214	107	200	2.57		
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	204	102	200	0.742		
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND						

Surrogate: 1-Chlorooctane 88.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 82.7 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 125 5' (H251919-14)**

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	04/02/2025	ND	1.72	86.0	2.00	17.5	
Toluene*	<0.050	0.050	04/02/2025	ND	1.88	94.2	2.00	12.1	
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	1.96	97.9	2.00	8.74	
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.02	100	6.00	7.85	
Total BTEX	<0.300	0.300	04/02/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 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	04/02/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	214	107	200	2.57	
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	204	102	200	0.742	
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND					

Surrogate: 1-Chlorooctane 94.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 89.0 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 126 5' (H251919-15)**

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	04/02/2025	ND	1.72	86.0	2.00	17.5		
Toluene*	<0.050	0.050	04/02/2025	ND	1.88	94.2	2.00	12.1		
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	1.96	97.9	2.00	8.74		
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.02	100	6.00	7.85		
Total BTEX	<0.300	0.300	04/02/2025	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	32.0	16.0	04/02/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	214	107	200	2.57		
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	204	102	200	0.742		
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND						

Surrogate: 1-Chlorooctane 107 % 44.4-145

Surrogate: 1-Chlorooctadecane 101 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 127 5' (H251919-16)**

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	04/02/2025	ND	1.72	86.0	2.00	17.5	
Toluene*	<0.050	0.050	04/02/2025	ND	1.88	94.2	2.00	12.1	
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	1.96	97.9	2.00	8.74	
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.02	100	6.00	7.85	
Total BTEX	<0.300	0.300	04/02/2025	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	<b>144</b>	16.0	04/02/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	210	105	200	1.99	
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	202	101	200	2.23	
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND					

Surrogate: 1-Chlorooctane 77.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 73.2 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 128 5' (H251919-17)**

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	04/02/2025	ND	1.72	86.0	2.00	17.5	
Toluene*	<0.050	0.050	04/02/2025	ND	1.88	94.2	2.00	12.1	
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	1.96	97.9	2.00	8.74	
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.02	100	6.00	7.85	
Total BTEX	<0.300	0.300	04/02/2025	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	48.0	16.0	04/02/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	210	105	200	1.99	
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	202	101	200	2.23	
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND					

Surrogate: 1-Chlorooctane 77.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 72.8 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 129 5' (H251919-18)**

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	04/02/2025	ND	1.72	86.0	2.00	17.5	
Toluene*	<0.050	0.050	04/02/2025	ND	1.88	94.2	2.00	12.1	
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	1.96	97.9	2.00	8.74	
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.02	100	6.00	7.85	
Total BTEX	<0.300	0.300	04/02/2025	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	64.0	16.0	04/02/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	210	105	200	1.99	
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	202	101	200	2.23	
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND					

Surrogate: 1-Chlorooctane 89.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 82.8 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 130 5' (H251919-19)**

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	04/02/2025	ND	1.72	86.0	2.00	17.5	
Toluene*	<0.050	0.050	04/02/2025	ND	1.88	94.2	2.00	12.1	
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	1.96	97.9	2.00	8.74	
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.02	100	6.00	7.85	
Total BTEX	<0.300	0.300	04/02/2025	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	32.0	16.0	04/02/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	210	105	200	1.99	
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	202	101	200	2.23	
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND					

Surrogate: 1-Chlorooctane 83.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 77.8 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 131 5' (H251919-20)**

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	04/02/2025	ND	1.72	86.0	2.00	17.5	
Toluene*	<0.050	0.050	04/02/2025	ND	1.88	94.2	2.00	12.1	
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	1.96	97.9	2.00	8.74	
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.02	100	6.00	7.85	
Total BTEX	<0.300	0.300	04/02/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 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	224	16.0	04/02/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	210	105	200	1.99	
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	202	101	200	2.23	
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND					

Surrogate: 1-Chlorooctane 94.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 87.3 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 132 5' (H251919-21)**

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	04/02/2025	ND	1.72	86.0	2.00	17.5	
Toluene*	<0.050	0.050	04/02/2025	ND	1.88	94.2	2.00	12.1	
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	1.96	97.9	2.00	8.74	
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.02	100	6.00	7.85	
Total BTEX	<0.300	0.300	04/02/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 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	04/02/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	210	105	200	1.99	
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	202	101	200	2.23	
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND					

Surrogate: 1-Chlorooctane 95.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 90.0 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 133 5' (H251919-22)**

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	04/02/2025	ND	1.72	86.0	2.00	17.5	
Toluene*	<0.050	0.050	04/02/2025	ND	1.88	94.2	2.00	12.1	
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	1.96	97.9	2.00	8.74	
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.02	100	6.00	7.85	
Total BTEX	<0.300	0.300	04/02/2025	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	80.0	16.0	04/02/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	210	105	200	1.99	
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	202	101	200	2.23	
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND					

Surrogate: 1-Chlorooctane 97.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 89.6 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 138 5' (H251919-23)**

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	04/02/2025	ND	1.85	92.3	2.00	0.373	
Toluene*	<0.050	0.050	04/02/2025	ND	1.96	97.8	2.00	0.0378	
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	2.00	99.9	2.00	0.591	
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.21	103	6.00	0.831	
Total BTEX	<0.300	0.300	04/02/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 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	224	16.0	04/02/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	210	105	200	1.99	
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	202	101	200	2.23	
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND					

Surrogate: 1-Chlorooctane 96.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 90.9 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 139 5' (H251919-24)**

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	04/02/2025	ND	1.85	92.3	2.00	0.373		
Toluene*	<0.050	0.050	04/02/2025	ND	1.96	97.8	2.00	0.0378		
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	2.00	99.9	2.00	0.591		
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.21	103	6.00	0.831		
Total BTEX	<0.300	0.300	04/02/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	04/02/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	210	105	200	1.99		
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	202	101	200	2.23		
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND						

Surrogate: 1-Chlorooctane 99.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 92.8 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 140 5' (H251919-25)**

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	04/02/2025	ND	1.85	92.3	2.00	0.373		
Toluene*	<0.050	0.050	04/02/2025	ND	1.96	97.8	2.00	0.0378		
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	2.00	99.9	2.00	0.591		
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.21	103	6.00	0.831		
Total BTEX	<0.300	0.300	04/02/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 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	04/02/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	210	105	200	1.99		
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	202	101	200	2.23		
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND						

Surrogate: 1-Chlorooctane 99.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 92.9 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 141 5' (H251919-26)**

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	04/02/2025	ND	1.85	92.3	2.00	0.373	
Toluene*	<0.050	0.050	04/02/2025	ND	1.96	97.8	2.00	0.0378	
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	2.00	99.9	2.00	0.591	
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.21	103	6.00	0.831	
Total BTEX	<0.300	0.300	04/02/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 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	04/02/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	210	105	200	1.99	
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	202	101	200	2.23	
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND					

Surrogate: 1-Chlorooctane 86.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 81.0 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 142 4' (H251919-27)**

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	04/02/2025	ND	1.85	92.3	2.00	0.373	
Toluene*	<0.050	0.050	04/02/2025	ND	1.96	97.8	2.00	0.0378	
Ethylbenzene*	<0.050	0.050	04/02/2025	ND	2.00	99.9	2.00	0.591	
Total Xylenes*	<0.150	0.150	04/02/2025	ND	6.21	103	6.00	0.831	
Total BTEX	<0.300	0.300	04/02/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 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	304	16.0	04/02/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	210	105	200	1.99	
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	202	101	200	2.23	
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND					

Surrogate: 1-Chlorooctane 95.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 86.8 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/01/2025	Sampling Date:	03/31/2025
Reported:	04/07/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 143 4' (H251919-28)**

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	04/03/2025	ND	1.85	92.3	2.00	0.373	
Toluene*	<0.050	0.050	04/03/2025	ND	1.96	97.8	2.00	0.0378	
Ethylbenzene*	<0.050	0.050	04/03/2025	ND	2.00	99.9	2.00	0.591	
Total Xylenes*	<0.150	0.150	04/03/2025	ND	6.21	103	6.00	0.831	
Total BTEX	<0.300	0.300	04/03/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 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	04/02/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/02/2025	ND	210	105	200	1.99	
DRO >C10-C28*	<10.0	10.0	04/02/2025	ND	202	101	200	2.23	
EXT DRO >C28-C36	<10.0	10.0	04/02/2025	ND					

Surrogate: 1-Chlorooctane 97.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 90.9 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- QR-04 The RPD for the BS/BSD was outside of historical limits.
QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
\*\* Samples not received at proper temperature of 6°C or below.
\*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene

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: 3122 National Parks Hwy  
 City: Carlsbad State: NM Zip: 88220  
 Phone #: 575-937-3906 Fax #: \_\_\_\_\_  
 Project #: 03C1558453 / 03C1558587 Project Owner: XTO  
 Project Name: Big Eddy Unit 248H / 249H  
 Project Location: 32.62085, -103.83132  
 Sampler Name: Alex Ferrell  
 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	BTEX
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
H051919	FS109	5'	✓	1			X				X	3/31/25	1110	X	X	X
	FS110	5'										3/31/25	1113	X	X	X
	FS111	5'										3/31/25	1118	X	X	X
	FS114	5'										3/31/25	1122	X	X	X
	FS115	5'										3/31/25	1107	X	X	X
	FS116	5'										3/31/25	1113	X	X	X
	FS117	5'										3/31/25	1119	X	X	X
	FS118	5'										3/31/25	1125	X	X	X
	FS119	5'										3/31/25	1132	X	X	X
	FS120	5'										3/31/25	1137	X	X	X

PLEASE NOTE: Identity and Ownership, Cardinal Safety and client's exclusive remedy for any claim arising whether stated or not, 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 negligent or consequential damages, including without limitation, business interruptions, loss of data, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or resulting from the performance of services hereunder by Cardinal regardless of whether such claim is based upon any of the above stated remedies or otherwise.

Rollinquinshed By: *[Signature]* Date: 4-1-25  
 Received By: *[Signature]* Type: P330  
 Relinquished By: *[Signature]* Date: \_\_\_\_\_  
 Received By: \_\_\_\_\_

Delivered By: (Circle One)  Other: \_\_\_\_\_  
 Sampler - UPS - Bus - Other: \_\_\_\_\_  
 O... .. Temp: °C D.I.  
 Corrected Temp: °C 04  
 Sample Condition:  Cool  Intact  
 Yes  No  Yes  No  
 CHECKED BY: *[Signature]* (Initials)  
 Remarks: REMARKS: Incident: NAPP2418043567, NAPP2432147637, NAPP2432531235, NAPP2502042071  
 Cost Center: 1140201001  
 Thermometer ID: # *[Signature]* Standard  Bacteria (only)   
 Cool Intact  Observed Temp. °C   
 Corrected Temp. °C

FDJRM-006 R 3.2 10/07/23

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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

**BILL TO**

**ANALYSIS REQUEST**

*R*

Company Name: Ensolum, LLC  
 Project Manager: Tracy Hilliard  
 Address: 3122 National Parks Hwy  
 City: Carlsbad State: NM Zip: 88220  
 Phone #: 575-937-3906 Fax #: \_\_\_\_\_  
 Project #: 03C1558451 / 03C1558587 Project Owner: XTO  
 Project Name: Big Eddy Unit 248H / 249H  
 Project Location: 32.62085, -103.83132  
 Sampler Name: Alex Ferrell  
 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)	MATRIX		PRESERV		DATE	TIME	Chlorides	TPH	BTEX
			(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER					
<i>H25919</i>	FS121	5'	<input checked="" type="checkbox"/>	1			3/31/25	1142	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	FS122	5'	<input checked="" type="checkbox"/>	1			3/31/25	1158	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	FS124	5'	<input checked="" type="checkbox"/>	1			3/31/25	1204	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	FS125	5'	<input checked="" type="checkbox"/>	1			3/31/25	1224	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	FS126	5'	<input checked="" type="checkbox"/>	1			3/31/25	1230	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	FS127	5'	<input checked="" type="checkbox"/>	1			3/31/25	1235	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	FS128	5'	<input checked="" type="checkbox"/>	1			3/31/25	1240	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	FS129	5'	<input checked="" type="checkbox"/>	1			3/31/25	1246	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	FS130	5'	<input checked="" type="checkbox"/>	1			3/31/25	1252	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	FS131	5'	<input checked="" type="checkbox"/>	1			3/31/25	1252	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

PLEASE NOTE: Labels and Containers: Cardinal's safety and client's security priority for any other safety-related issues is contained or not, shall be listed by the amount paid by the client for the analysis. All data including those for analysis and any other data whatsoever shall be deemed sealed unless noted in writing and received by Cardinal within 30 days after completion of the application. If the event that Cardinal be held for evidential or consequential damages, including without limitation, business interruption, 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: *4/1/25* Time: *1330*  
 Received By: *[Signature]* Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Delivered By: (Circle One)  UPS  Bus  Other: \_\_\_\_\_  
 Temperature: *0.1* °C  
 Sample Condition:  Cool  Ambient  Warm  
 Checked By: *[Signature]*  
 Remarks: *Standard Rush*  
 Bacteria (only) Sample Condition:  Bacteria Intact  Observed Temp. °C  Corrected Temp. °C



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

3

BILL TO

ANALYSIS REQUEST

Company Name: Ensolum, LLC  
 Project Manager: Tracy Hilliard  
 Address: 3122 National Parks Hwy  
 City: Carlsbad State: NM Zip: 88220  
 Phone #: 575-937-3906 Fax #:   
 Project #: 03C1558453 / 03C1558597 Project Owner: XTO  
 Project Name: Big Eddy Unit 248H / 249H  
 Project Location: 32.62085, -103.83132  
 Sampler Name: Alex Ferrell  
 P.O. #:   
 Company: XTO Energy Inc  
 Attn: Colton Brown  
 Address: 3104 E Green St  
 City: Carlsbad State: NM Zip: 88220  
 Phone #:   
 Fax #:   
 PRESERV:  ICE / COOL

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	Chlorides	TPH	BTEX
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:					
A25199	FS132	5'	C	1			X					1300	X	X	X
	FS133	5'	C	1								1306	X	X	X
	FS138	5'	C	1								1357	X	X	X
	FS139	5'	C	1								1403	X	X	X
	FS140	5'	C	1								1435	X	X	X
	FS141	5'	C	1								1441	X	X	X
	FS142	4'	C	1								1444	X	X	X
	FS143	4'	C	1								1448	X	X	X

PLEASE NOTE: Location and Designator, Cardinal Safety and Quality systems identify for any other testing methods stated in contract or not, shall be noted to the sampler and by the client for the analysis. All data including those for analytes and any other data whenever shall be dated and received by Cardinal within 30 days after completion of the applicable analysis. No event shall Cardinal be liable for accidental or consequential damage, including without limitation, business interruption, 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. Inspection of samples shall be held upon site of the above stated response or otherwise.

Relinquished By: *[Signature]*  
 Date: *3/31/25*  
 Received By: *[Signature]*  
 Date: *3/31/25*  
 Turnaround Time: *Standard*  *Rush*   
 Bacteria (only)  Sample Condition   
 Cool Inlet  Observed Temp. °C   
 Yes  No  Corrected Temp. °C

FORM-006 R.3.2 10/07/21  
 † Cardinal cannot accept verbal changes. Please email changes to caley.keene@cardinalgsdm.com



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

---

April 09, 2025

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BIG EDDY UNIT 248H & 249H

Enclosed are the results of analyses for samples received by the laboratory on 04/03/25 13:15.

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

Received:	04/03/2025	Sampling Date:	04/02/2025
Reported:	04/09/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 72 A 4' (H251978-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/06/2025	ND	2.06	103	2.00	4.89	
Toluene*	<0.050	0.050	04/06/2025	ND	2.19	109	2.00	4.10	
Ethylbenzene*	<0.050	0.050	04/06/2025	ND	2.51	125	2.00	5.98	
Total Xylenes*	<0.150	0.150	04/06/2025	ND	7.67	128	6.00	6.85	
Total BTEX	<0.300	0.300	04/06/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 127 % 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	320	16.0	04/04/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/05/2025	ND	194	97.1	200	1.53	
DRO >C10-C28*	<10.0	10.0	04/05/2025	ND	206	103	200	1.17	
EXT DRO >C28-C36	<10.0	10.0	04/05/2025	ND					

Surrogate: 1-Chlorooctane 74.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 67.0 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/03/2025	Sampling Date:	04/02/2025
Reported:	04/09/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 91 A 4' (H251978-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/06/2025	ND	2.06	103	2.00	4.89	
Toluene*	<0.050	0.050	04/06/2025	ND	2.19	109	2.00	4.10	
Ethylbenzene*	<0.050	0.050	04/06/2025	ND	2.51	125	2.00	5.98	
Total Xylenes*	<0.150	0.150	04/06/2025	ND	7.67	128	6.00	6.85	
Total BTEX	<0.300	0.300	04/06/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 124 % 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	320	16.0	04/04/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/05/2025	ND	194	97.1	200	1.53	
DRO >C10-C28*	<10.0	10.0	04/05/2025	ND	206	103	200	1.17	
EXT DRO >C28-C36	<10.0	10.0	04/05/2025	ND					

Surrogate: 1-Chlorooctane 77.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 69.8 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/03/2025	Sampling Date:	04/02/2025
Reported:	04/09/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 90 A 4' (H251978-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/06/2025	ND	2.06	103	2.00	4.89	
Toluene*	<0.050	0.050	04/06/2025	ND	2.19	109	2.00	4.10	
Ethylbenzene*	<0.050	0.050	04/06/2025	ND	2.51	125	2.00	5.98	
Total Xylenes*	<0.150	0.150	04/06/2025	ND	7.67	128	6.00	6.85	
Total BTEX	<0.300	0.300	04/06/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 125 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	04/04/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/04/2025	ND	199	99.3	200	7.99	
DRO >C10-C28*	<10.0	10.0	04/04/2025	ND	213	106	200	6.42	
EXT DRO >C28-C36	<10.0	10.0	04/04/2025	ND					

Surrogate: 1-Chlorooctane 97.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 99.1 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/03/2025	Sampling Date:	04/02/2025
Reported:	04/09/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: SW 08 0-4' (H251978-04)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/06/2025	ND	2.06	103	2.00	4.89	
Toluene*	<0.050	0.050	04/06/2025	ND	2.19	109	2.00	4.10	
Ethylbenzene*	<0.050	0.050	04/06/2025	ND	2.51	125	2.00	5.98	
Total Xylenes*	<0.150	0.150	04/06/2025	ND	7.67	128	6.00	6.85	
Total BTEX	<0.300	0.300	04/06/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 127 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	04/04/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/04/2025	ND	199	99.3	200	7.99	
DRO >C10-C28*	<10.0	10.0	04/04/2025	ND	213	106	200	6.42	
EXT DRO >C28-C36	<10.0	10.0	04/04/2025	ND					

Surrogate: 1-Chlorooctane 99.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 100 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BS-3 Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
BS1 Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
\*\* Samples not received at proper temperature of 6°C or below.
\*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

\*=Accredited Analyte

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.

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager





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

---

April 09, 2025

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BIG EDDY UNIT 248H & 249H

Enclosed are the results of analyses for samples received by the laboratory on 04/03/25 13:15.

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.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/03/2025	Sampling Date:	04/01/2025
Reported:	04/09/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 69 4' (H251979-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/06/2025	ND	2.06	103	2.00	4.89	
Toluene*	<0.050	0.050	04/06/2025	ND	2.19	109	2.00	4.10	
Ethylbenzene*	<0.050	0.050	04/06/2025	ND	2.51	125	2.00	5.98	
Total Xylenes*	<0.150	0.150	04/06/2025	ND	7.67	128	6.00	6.85	
Total BTEX	<0.300	0.300	04/06/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 131 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	04/04/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/04/2025	ND	199	99.3	200	7.99	
DRO >C10-C28*	<10.0	10.0	04/04/2025	ND	213	106	200	6.42	
EXT DRO >C28-C36	<10.0	10.0	04/04/2025	ND					

Surrogate: 1-Chlorooctane 90.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 89.7 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/03/2025	Sampling Date:	04/01/2025
Reported:	04/09/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 83 4' (H251979-02)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/06/2025	ND	2.06	103	2.00	4.89		
Toluene*	<0.050	0.050	04/06/2025	ND	2.19	109	2.00	4.10		
Ethylbenzene*	<0.050	0.050	04/06/2025	ND	2.51	125	2.00	5.98		
Total Xylenes*	<0.150	0.150	04/06/2025	ND	7.67	128	6.00	6.85		
Total BTEX	<0.300	0.300	04/06/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 127 % 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	04/04/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/04/2025	ND	199	99.3	200	7.99		
DRO >C10-C28*	<10.0	10.0	04/04/2025	ND	213	106	200	6.42		
EXT DRO >C28-C36	<10.0	10.0	04/04/2025	ND						

Surrogate: 1-Chlorooctane 88.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.9 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/03/2025	Sampling Date:	04/01/2025
Reported:	04/09/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 84 4' (H251979-03)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/06/2025	ND	2.06	103	2.00	4.89		
Toluene*	<0.050	0.050	04/06/2025	ND	2.19	109	2.00	4.10		
Ethylbenzene*	<0.050	0.050	04/06/2025	ND	2.51	125	2.00	5.98		
Total Xylenes*	<0.150	0.150	04/06/2025	ND	7.67	128	6.00	6.85		
Total BTEX	<0.300	0.300	04/06/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 128 % 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	<b>400</b>	16.0	04/04/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/04/2025	ND	199	99.3	200	7.99		
DRO >C10-C28*	<10.0	10.0	04/04/2025	ND	213	106	200	6.42		
EXT DRO >C28-C36	<10.0	10.0	04/04/2025	ND						

Surrogate: 1-Chlorooctane 94.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 95.2 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/03/2025	Sampling Date:	04/01/2025
Reported:	04/09/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 90 4' (H251979-04)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/07/2025	ND	2.06	103	2.00	4.89	
Toluene*	<0.050	0.050	04/07/2025	ND	2.19	109	2.00	4.10	
Ethylbenzene*	<0.050	0.050	04/07/2025	ND	2.51	125	2.00	5.98	
Total Xylenes*	<0.150	0.150	04/07/2025	ND	7.67	128	6.00	6.85	
Total BTEX	<0.300	0.300	04/07/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 129 % 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	384	16.0	04/04/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/04/2025	ND	199	99.3	200	7.99	
DRO >C10-C28*	<10.0	10.0	04/04/2025	ND	213	106	200	6.42	
EXT DRO >C28-C36	<10.0	10.0	04/04/2025	ND					

Surrogate: 1-Chlorooctane 90.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 90.7 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/03/2025	Sampling Date:	04/01/2025
Reported:	04/09/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 71 4' (H251979-05)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/07/2025	ND	2.06	103	2.00	4.89	
Toluene*	<0.050	0.050	04/07/2025	ND	2.19	109	2.00	4.10	
Ethylbenzene*	<0.050	0.050	04/07/2025	ND	2.51	125	2.00	5.98	
Total Xylenes*	<0.150	0.150	04/07/2025	ND	7.67	128	6.00	6.85	
Total BTEX	<0.300	0.300	04/07/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 130 % 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	432	16.0	04/04/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/04/2025	ND	199	99.3	200	7.99	
DRO >C10-C28*	<10.0	10.0	04/04/2025	ND	213	106	200	6.42	
EXT DRO >C28-C36	<10.0	10.0	04/04/2025	ND					

Surrogate: 1-Chlorooctane 90.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 90.9 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/03/2025	Sampling Date:	04/01/2025
Reported:	04/09/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 91 4' (H251979-06)**

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	04/07/2025	ND	2.06	103	2.00	4.89	
Toluene*	<0.050	0.050	04/07/2025	ND	2.19	109	2.00	4.10	
Ethylbenzene*	<0.050	0.050	04/07/2025	ND	2.51	125	2.00	5.98	
Total Xylenes*	<0.150	0.150	04/07/2025	ND	7.67	128	6.00	6.85	
Total BTEX	<0.300	0.300	04/07/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 130 % 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	432	16.0	04/04/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/04/2025	ND	199	99.3	200	7.99	
DRO >C10-C28*	<10.0	10.0	04/04/2025	ND	213	106	200	6.42	
EXT DRO >C28-C36	<10.0	10.0	04/04/2025	ND					

Surrogate: 1-Chlorooctane 83.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 84.1 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/03/2025	Sampling Date:	04/01/2025
Reported:	04/09/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 87 4' (H251979-07)**

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	04/07/2025	ND	2.06	103	2.00	4.89	
Toluene*	<0.050	0.050	04/07/2025	ND	2.19	109	2.00	4.10	
Ethylbenzene*	<0.050	0.050	04/07/2025	ND	2.51	125	2.00	5.98	
Total Xylenes*	<0.150	0.150	04/07/2025	ND	7.67	128	6.00	6.85	
Total BTEX	<0.300	0.300	04/07/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 128 % 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	400	16.0	04/04/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/04/2025	ND	199	99.3	200	7.99	
DRO >C10-C28*	<10.0	10.0	04/04/2025	ND	213	106	200	6.42	
EXT DRO >C28-C36	<10.0	10.0	04/04/2025	ND					

Surrogate: 1-Chlorooctane 86.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 87.9 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/03/2025	Sampling Date:	04/01/2025
Reported:	04/09/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 72 4' (H251979-08)**

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	04/06/2025	ND	1.97	98.3	2.00	2.12	
Toluene*	<0.050	0.050	04/06/2025	ND	1.99	99.7	2.00	0.00491	
Ethylbenzene*	<0.050	0.050	04/06/2025	ND	2.09	104	2.00	1.96	
Total Xylenes*	<0.150	0.150	04/06/2025	ND	6.52	109	6.00	2.37	
Total BTEX	<0.300	0.300	04/06/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	04/04/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/05/2025	ND	199	99.3	200	7.99	
DRO >C10-C28*	<10.0	10.0	04/05/2025	ND	213	106	200	6.42	
EXT DRO >C28-C36	<10.0	10.0	04/05/2025	ND					

Surrogate: 1-Chlorooctane 81.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 81.3 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/03/2025	Sampling Date:	04/01/2025
Reported:	04/09/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 73 4' (H251979-09)**

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	04/06/2025	ND	1.97	98.3	2.00	2.12	
Toluene*	<0.050	0.050	04/06/2025	ND	1.99	99.7	2.00	0.00491	
Ethylbenzene*	<0.050	0.050	04/06/2025	ND	2.09	104	2.00	1.96	
Total Xylenes*	<0.150	0.150	04/06/2025	ND	6.52	109	6.00	2.37	
Total BTEX	<0.300	0.300	04/06/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	04/04/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/05/2025	ND	199	99.3	200	7.99	
DRO >C10-C28*	<10.0	10.0	04/05/2025	ND	213	106	200	6.42	
EXT DRO >C28-C36	<10.0	10.0	04/05/2025	ND					

Surrogate: 1-Chlorooctane 86.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.6 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/03/2025	Sampling Date:	04/01/2025
Reported:	04/09/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 60 0.5' (H251979-10)**

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	04/06/2025	ND	1.97	98.3	2.00	2.12	
Toluene*	<0.050	0.050	04/06/2025	ND	1.99	99.7	2.00	0.00491	
Ethylbenzene*	<0.050	0.050	04/06/2025	ND	2.09	104	2.00	1.96	
Total Xylenes*	<0.150	0.150	04/06/2025	ND	6.52	109	6.00	2.37	
Total BTEX	<0.300	0.300	04/06/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	04/04/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/05/2025	ND	199	99.3	200	7.99	
DRO >C10-C28*	<10.0	10.0	04/05/2025	ND	213	106	200	6.42	
EXT DRO >C28-C36	<10.0	10.0	04/05/2025	ND					

Surrogate: 1-Chlorooctane 82.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 83.0 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/03/2025	Sampling Date:	04/01/2025
Reported:	04/09/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO 32.62085-103.83132		

**Sample ID: CS 59 0.5' (H251979-11)**

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	04/06/2025	ND	1.97	98.3	2.00	2.12	
Toluene*	<0.050	0.050	04/06/2025	ND	1.99	99.7	2.00	0.00491	
Ethylbenzene*	<0.050	0.050	04/06/2025	ND	2.09	104	2.00	1.96	
Total Xylenes*	<0.150	0.150	04/06/2025	ND	6.52	109	6.00	2.37	
Total BTEX	<0.300	0.300	04/06/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	592	16.0	04/04/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/05/2025	ND	199	99.3	200	7.99	
DRO >C10-C28*	<10.0	10.0	04/05/2025	ND	213	106	200	6.42	
EXT DRO >C28-C36	<10.0	10.0	04/05/2025	ND					

Surrogate: 1-Chlorooctane 80.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 81.6 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BS-3 Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
BS1 Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
\*\* Samples not received at proper temperature of 6°C or below.
\*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

\*=Accredited Analyte

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.

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

2

**BILL TO**

**ANALYSIS REQUEST**

Company Name: Ensolum, LLC  
 Project Manager: Tracy Hilliard  
 Address: 3122 National Parks Hwy  
 City: Carlsbad State: NM Zip: 88220  
 Phone #: 575-937-3906 Fax #:   
 Project #: 03C1558453 / 03C1558577 Project Owner: XTO  
 Project Name: Big Eddy Unit 248H / 249H  
 Project Location: 32.62085, -103.83132  
 Sampler Name: Alex Ferrell  
 P.O. #:   
 Company: XTO Energy Inc  
 Attn: Colton Brown  
 Address: 3104 E Green St  
 City: Carlsbad State: NM Zip: 88220  
 Phone #:   
 Fax #:   
 MATRIX:  GROUNDWATER  WASTEWATER  SOIL  OIL  SLUDGE  OTHER:   
 PRESERV:  ICE / COOL  OTHER:   
 SAMPLING:   
 Lab I.D. Sample I.D. Depth (feet)   
 H51919 CSS9 0.5   
 (G)RAB OR (C)OMP. # CONTAINERS   
 DATE TIME   
 4/1/25 1531   
 Chlorides    
 TPH    
 BTEX    
 AIF

PLEASE NOTE: Labby and Damages. Customer liability and death'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 service. All claims including those for negligence and any other claims 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. Inspection of samples and results shall be subject to the terms and conditions of the applicable service agreement.

Relinquished By:   
 Date: 4-3-25  
 Received By:   
 Date: 4/1/25  
 Turnaround Time: 1.3  
 Standard    
 Add'l Phone #:   
 Verbal Results:  Yes  No   
 All Results are emailed. Please provide Email address:   
 THillard@ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com  
 Incident: NAPP2418043567, NAPP2432147637, NAPP2432351235, NAPP2502042071  
 Cost Center: 1140201001

Delivered By: (Circle One)   
 Corrected Temp. °C 1.4   
 Sample Condition   
 Cool  Intact    
 Checked By:   
 Turnaround Time: 1.3  
 Standard    
 Add'l Phone #:   
 Verbal Results:  Yes  No   
 All Results are emailed. Please provide Email address:   
 THillard@ensolum.com, TMorrissey@ensolum.com, KThomason@ensolum.com  
 Incident: NAPP2418043567, NAPP2432147637, NAPP2432351235, NAPP2502042071  
 Cost Center: 1140201001

FOR LAB USE ONLY

FORMA-006 R. 3.2 10/07/21

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



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

---

April 08, 2025

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BIG EDDY UNIT 248H & 249H

Enclosed are the results of analyses for samples received by the laboratory on 04/07/25 11:46.

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

Received:	04/07/2025	Sampling Date:	04/04/2025
Reported:	04/08/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558577	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 32 2' (H252033-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/07/2025	ND	2.02	101	2.00	18.1	
Toluene*	<0.050	0.050	04/07/2025	ND	1.96	97.9	2.00	19.2	
Ethylbenzene*	<0.050	0.050	04/07/2025	ND	2.03	101	2.00	19.1	
Total Xylenes*	<0.150	0.150	04/07/2025	ND	6.34	106	6.00	19.2	
Total BTEX	<0.300	0.300	04/07/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	112	16.0	04/07/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/07/2025	ND	197	98.6	200	0.709	
DRO >C10-C28*	<10.0	10.0	04/07/2025	ND	207	103	200	0.0271	
EXT DRO >C28-C36	<10.0	10.0	04/07/2025	ND					

Surrogate: 1-Chlorooctane 94.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.5 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/07/2025	Sampling Date:	04/04/2025
Reported:	04/08/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558577	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 43 4' (H252033-02)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/07/2025	ND	2.02	101	2.00	18.1		
Toluene*	<0.050	0.050	04/07/2025	ND	1.96	97.9	2.00	19.2		
Ethylbenzene*	<0.050	0.050	04/07/2025	ND	2.03	101	2.00	19.1		
Total Xylenes*	<0.150	0.150	04/07/2025	ND	6.34	106	6.00	19.2		
Total BTEX	<0.300	0.300	04/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	04/07/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/07/2025	ND	197	98.6	200	0.709		
DRO >C10-C28*	<10.0	10.0	04/07/2025	ND	207	103	200	0.0271		
EXT DRO >C28-C36	<10.0	10.0	04/07/2025	ND						

Surrogate: 1-Chlorooctane 99.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 97.8 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/07/2025	Sampling Date:	04/04/2025
Reported:	04/08/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558577	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 46 5' (H252033-03)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/07/2025	ND	2.02	101	2.00	18.1		
Toluene*	<0.050	0.050	04/07/2025	ND	1.96	97.9	2.00	19.2		
Ethylbenzene*	<0.050	0.050	04/07/2025	ND	2.03	101	2.00	19.1		
Total Xylenes*	<0.150	0.150	04/07/2025	ND	6.34	106	6.00	19.2		
Total BTEX	<0.300	0.300	04/07/2025	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	352	16.0	04/07/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/08/2025	ND	197	98.6	200	0.709		
DRO >C10-C28*	<10.0	10.0	04/08/2025	ND	207	103	200	0.0271		
EXT DRO >C28-C36	<10.0	10.0	04/08/2025	ND						

Surrogate: 1-Chlorooctane 97.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 91.8 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/07/2025	Sampling Date:	04/04/2025
Reported:	04/08/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558577	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 49 7' (H252033-04)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/07/2025	ND	2.02	101	2.00	18.1		
Toluene*	<0.050	0.050	04/07/2025	ND	1.96	97.9	2.00	19.2		
Ethylbenzene*	<0.050	0.050	04/07/2025	ND	2.03	101	2.00	19.1		
Total Xylenes*	<0.150	0.150	04/07/2025	ND	6.34	106	6.00	19.2		
Total BTEX	<0.300	0.300	04/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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>416</b>	16.0	04/07/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/08/2025	ND	197	98.6	200	0.709		
DRO >C10-C28*	<10.0	10.0	04/08/2025	ND	207	103	200	0.0271		
EXT DRO >C28-C36	<10.0	10.0	04/08/2025	ND						

Surrogate: 1-Chlorooctane 91.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 85.8 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

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

Cardinal Laboratories

\*=Accredited Analyte

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

*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



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

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

Company Name: Ensolum, LLC

**BILL TO**

**ANALYSIS REQUEST**

Project Manager: *Frey Miller*

P.O. #: \_\_\_\_\_  
 Company: XTO Energy, Inc

Address: 601 N Marland Street, Suite 400

Attn: Colton Brown

City: Midland

State: TX Zip: 79701

Address: 3104 E Greene St

Phone #: ~~575-137-3906~~ Fax #: \_\_\_\_\_

City: Carlsbad

Project #: ~~031558577~~ Project Owner: XTO Energy

State: NM Zip: 88220

Project Name: *Big Falls Unit 248HA 249K - SPILLS*

Phone #: \_\_\_\_\_

Project Location: *32.62085, -103.63132*

Fax #: \_\_\_\_\_

Sampler Name: *Kevin R*

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 :					
<i>HS2033</i>	<i>FS32</i>	<i>2</i>	<i>C1</i>	<i>1</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
	<i>FS43</i>	<i>4</i>	<i>C1</i>	<i>1</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
	<i>FS46</i>	<i>5</i>	<i>C1</i>	<i>1</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
	<i>FS49</i>	<i>7</i>	<i>C1</i>	<i>1</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

PLEASE NOTE: Liability and Damages. Cardinal Safety and Chem'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 90 days after completion of the applicable service. It is not intended that 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, although not intended to be the performance of services rendered by Cardinal, regardless of whether such claim is based upon any of the above stated remedies or otherwise.

Relinquished By: *Kevin R* Date: *4-1-25* Received By: *Stacie Kingery*

Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Received By: \_\_\_\_\_

Delivered By: (Circle One) \_\_\_\_\_

Sampler - UPS - Bus - Other: \_\_\_\_\_

Overseas Temp. °C: *2.10* Sample Condition:  Intact  Cool  Yes  No

Corrected Temp. °C: *2.9*  Yes  No

Checked By: *SK*

Turnaround Time: \_\_\_\_\_ Standard  Bacteria (only) Sample Condition:  Intact  Cool  Yes  No

Thermometer ID: *11902101* *10997* *244*  Yes  No

Corrected Temp. °C: \_\_\_\_\_

† Cardinal cannot accept verbal changes. Please email changes to coley.keene@cardinalabsnm.com



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

---

April 16, 2025

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

RE: BIG EDDY UNIT 248H & 249H

Enclosed are the results of analyses for samples received by the laboratory on 04/11/25 15:44.

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.

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:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 29 4 (H252181-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/14/2025	ND	2.04	102	2.00	2.79	
Toluene*	<0.050	0.050	04/14/2025	ND	2.30	115	2.00	12.3	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.30	115	2.00	3.76	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.81	114	6.00	0.699	
Total BTEX	<0.300	0.300	04/14/2025	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	04/14/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	172	86.2	200	8.36	
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	180	90.2	200	1.58	
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 110 % 44.4-145

Surrogate: 1-Chlorooctadecane 110 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 30 4 (H252181-02)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/14/2025	ND	2.04	102	2.00	2.79		
Toluene*	<0.050	0.050	04/14/2025	ND	2.30	115	2.00	12.3		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.30	115	2.00	3.76		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.81	114	6.00	0.699		
Total BTEX	<0.300	0.300	04/14/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	04/14/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	172	86.2	200	8.36		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	180	90.2	200	1.58		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 102 % 44.4-145

Surrogate: 1-Chlorooctadecane 101 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 48 4 (H252181-03)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/14/2025	ND	2.04	102	2.00	2.79		
Toluene*	<0.050	0.050	04/14/2025	ND	2.30	115	2.00	12.3		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.30	115	2.00	3.76		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.81	114	6.00	0.699		
Total BTEX	<0.300	0.300	04/14/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	04/14/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	172	86.2	200	8.36		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	180	90.2	200	1.58		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 102 % 44.4-145

Surrogate: 1-Chlorooctadecane 101 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 50 7 (H252181-04)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/14/2025	ND	2.04	102	2.00	2.79		
Toluene*	<0.050	0.050	04/14/2025	ND	2.30	115	2.00	12.3		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.30	115	2.00	3.76		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.81	114	6.00	0.699		
Total BTEX	<0.300	0.300	04/14/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	04/14/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	172	86.2	200	8.36		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	180	90.2	200	1.58		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 112 % 44.4-145

Surrogate: 1-Chlorooctadecane 111 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 51 7 (H252181-05)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/14/2025	ND	2.04	102	2.00	2.79		
Toluene*	<0.050	0.050	04/14/2025	ND	2.30	115	2.00	12.3		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.30	115	2.00	3.76		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.81	114	6.00	0.699		
Total BTEX	<0.300	0.300	04/14/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>64.0</b>	16.0	04/14/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	172	86.2	200	8.36		
<b>DRO &gt;C10-C28*</b>	<b>17.8</b>	10.0	04/14/2025	ND	180	90.2	200	1.58		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 101 % 44.4-145

Surrogate: 1-Chlorooctadecane 101 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 52 7 (H252181-06)**

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	04/14/2025	ND	2.04	102	2.00	2.79		
Toluene*	<0.050	0.050	04/14/2025	ND	2.30	115	2.00	12.3		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.30	115	2.00	3.76		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.81	114	6.00	0.699		
Total BTEX	<0.300	0.300	04/14/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	04/14/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	172	86.2	200	8.36		
<b>DRO &gt;C10-C28*</b>	<b>13.9</b>	10.0	04/14/2025	ND	180	90.2	200	1.58		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 105 % 44.4-145

Surrogate: 1-Chlorooctadecane 105 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 54 7 (H252181-07)**

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	04/14/2025	ND	2.04	102	2.00	2.79		
Toluene*	<0.050	0.050	04/14/2025	ND	2.30	115	2.00	12.3		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.30	115	2.00	3.76		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.81	114	6.00	0.699		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 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	
<b>Chloride</b>	<b>48.0</b>	16.0	04/14/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	185	92.4	200	1.72		
<b>DRO &gt;C10-C28*</b>	<b>13.4</b>	10.0	04/14/2025	ND	188	94.0	200	2.25		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 90.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 98.5 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 55 7 (H252181-08)**

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	04/14/2025	ND	2.04	102	2.00	2.79		
Toluene*	<0.050	0.050	04/14/2025	ND	2.30	115	2.00	12.3		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.30	115	2.00	3.76		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.81	114	6.00	0.699		
Total BTEX	<0.300	0.300	04/14/2025	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>16.0</b>	16.0	04/14/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	185	92.4	200	1.72		
<b>DRO &gt;C10-C28*</b>	<b>97.2</b>	10.0	04/14/2025	ND	188	94.0	200	2.25		
<b>EXT DRO &gt;C28-C36</b>	<b>50.3</b>	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 89.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 99.7 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 62 5 (H252181-09)**

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	04/14/2025	ND	2.04	102	2.00	2.79		
Toluene*	<0.050	0.050	04/14/2025	ND	2.30	115	2.00	12.3		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.30	115	2.00	3.76		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.81	114	6.00	0.699		
Total BTEX	<0.300	0.300	04/14/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	04/14/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	185	92.4	200	1.72		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	188	94.0	200	2.25		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 91.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 95.2 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 63 3 (H252181-10)**

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	04/14/2025	ND	2.04	102	2.00	2.79		
Toluene*	<0.050	0.050	04/14/2025	ND	2.30	115	2.00	12.3		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.30	115	2.00	3.76		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.81	114	6.00	0.699		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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	04/14/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	185	92.4	200	1.72		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	188	94.0	200	2.25		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 86.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 90.9 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 70 3 (H252181-12)**

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	04/14/2025	ND	2.16	108	2.00	1.46	
Toluene*	<0.050	0.050	04/14/2025	ND	2.19	110	2.00	1.04	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.13	107	2.00	0.955	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.28	105	6.00	0.981	
Total BTEX	<0.300	0.300	04/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 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	04/14/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	185	92.4	200	1.72	
DRO >C10-C28*	21.2	10.0	04/14/2025	ND	188	94.0	200	2.25	
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 92.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 97.5 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 75 4 (H252181-13)**

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	04/14/2025	ND	2.16	108	2.00	1.46		
Toluene*	<0.050	0.050	04/14/2025	ND	2.19	110	2.00	1.04		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.13	107	2.00	0.955		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.28	105	6.00	0.981		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 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	
Chloride	144	16.0	04/14/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	185	92.4	200	1.72		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	188	94.0	200	2.25		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 88.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 91.3 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 76 4 (H252181-14)**

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	04/14/2025	ND	2.16	108	2.00	1.46		
Toluene*	<0.050	0.050	04/14/2025	ND	2.19	110	2.00	1.04		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.13	107	2.00	0.955		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.28	105	6.00	0.981		
Total BTEX	<0.300	0.300	04/14/2025	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	96.0	16.0	04/14/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	185	92.4	200	1.72		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	188	94.0	200	2.25		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 89.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 93.2 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 79 3 (H252181-15)**

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	04/14/2025	ND	2.16	108	2.00	1.46	
Toluene*	<0.050	0.050	04/14/2025	ND	2.19	110	2.00	1.04	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.13	107	2.00	0.955	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.28	105	6.00	0.981	
Total BTEX	<0.300	0.300	04/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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	04/14/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	185	92.4	200	1.72	
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	188	94.0	200	2.25	
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 84.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 86.4 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 80 3 (H252181-16)**

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	04/14/2025	ND	2.16	108	2.00	1.46		
Toluene*	<0.050	0.050	04/14/2025	ND	2.19	110	2.00	1.04		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.13	107	2.00	0.955		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.28	105	6.00	0.981		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 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	04/14/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	185	92.4	200	1.72		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	188	94.0	200	2.25		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 85.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 87.2 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 81 3 (H252181-17)**

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	04/14/2025	ND	2.16	108	2.00	1.46		
Toluene*	<0.050	0.050	04/14/2025	ND	2.19	110	2.00	1.04		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.13	107	2.00	0.955		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.28	105	6.00	0.981		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 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	48.0	16.0	04/14/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	185	92.4	200	1.72		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	188	94.0	200	2.25		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 86.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.7 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 82 3 (H252181-18)**

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	04/14/2025	ND	2.16	108	2.00	1.46		
Toluene*	<0.050	0.050	04/14/2025	ND	2.19	110	2.00	1.04		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.13	107	2.00	0.955		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.28	105	6.00	0.981		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.8 % 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	
Chloride	16.0	16.0	04/14/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	185	92.4	200	1.72		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	188	94.0	200	2.25		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 86.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 91.8 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 85 3 (H252181-19)**

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	04/14/2025	ND	2.16	108	2.00	1.46	
Toluene*	<0.050	0.050	04/14/2025	ND	2.19	110	2.00	1.04	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.13	107	2.00	0.955	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.28	105	6.00	0.981	
Total BTEX	<0.300	0.300	04/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 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	32.0	16.0	04/14/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	185	92.4	200	1.72	
DRO >C10-C28*	25.3	10.0	04/14/2025	ND	188	94.0	200	2.25	
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 81.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 85.6 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 88 3 (H252181-20)**

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	04/14/2025	ND	2.16	108	2.00	1.46	
Toluene*	<0.050	0.050	04/14/2025	ND	2.19	110	2.00	1.04	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.13	107	2.00	0.955	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.28	105	6.00	0.981	
Total BTEX	<0.300	0.300	04/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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	04/14/2025	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	185	92.4	200	1.72	
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	188	94.0	200	2.25	
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 85.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 89.6 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 89 3 (H252181-21)**

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	04/14/2025	ND	2.16	108	2.00	1.46		
Toluene*	<0.050	0.050	04/14/2025	ND	2.19	110	2.00	1.04		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.13	107	2.00	0.955		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.28	105	6.00	0.981		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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	04/14/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	185	92.4	200	1.72		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	188	94.0	200	2.25		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 89.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 90.8 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 92 3 (H252181-22)**

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	04/14/2025	ND	2.16	108	2.00	1.46		
Toluene*	<0.050	0.050	04/14/2025	ND	2.19	110	2.00	1.04		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.13	107	2.00	0.955		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.28	105	6.00	0.981		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.2 % 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	04/14/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	185	92.4	200	1.72		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	188	94.0	200	2.25		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 86.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 90.9 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 93 3 (H252181-23)**

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	04/14/2025	ND	2.16	108	2.00	1.46		
Toluene*	<0.050	0.050	04/14/2025	ND	2.19	110	2.00	1.04		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.13	107	2.00	0.955		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.28	105	6.00	0.981		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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	04/14/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	185	92.4	200	1.72		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	188	94.0	200	2.25		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 87.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 91.3 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 94 3 (H252181-24)**

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	04/14/2025	ND	2.16	108	2.00	1.46		
Toluene*	<0.050	0.050	04/14/2025	ND	2.19	110	2.00	1.04		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.13	107	2.00	0.955		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.28	105	6.00	0.981		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 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	544	16.0	04/14/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	185	92.4	200	1.72		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	188	94.0	200	2.25		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 85.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 87.9 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 95 5 (H252181-25)**

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	04/14/2025	ND	2.16	108	2.00	1.46		
Toluene*	<0.050	0.050	04/14/2025	ND	2.19	110	2.00	1.04		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.13	107	2.00	0.955		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.28	105	6.00	0.981		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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	04/14/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	185	92.4	200	1.72		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	188	94.0	200	2.25		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 87.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 92.2 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 97 4 (H252181-26)**

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	04/14/2025	ND	2.16	108	2.00	1.46		
Toluene*	<0.050	0.050	04/14/2025	ND	2.19	110	2.00	1.04		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.13	107	2.00	0.955		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.28	105	6.00	0.981		
Total BTEX	<0.300	0.300	04/14/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	04/14/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	185	92.4	200	1.72		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	188	94.0	200	2.25		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 86.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.3 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 98 4 (H252181-27)**

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	04/14/2025	ND	2.16	108	2.00	1.46		
Toluene*	<0.050	0.050	04/14/2025	ND	2.19	110	2.00	1.04		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.13	107	2.00	0.955		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.28	105	6.00	0.981		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 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	
Chloride	240	16.0	04/14/2025	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	185	92.4	200	1.72		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	188	94.0	200	2.25		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 89.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 91.7 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 99 4 (H252181-28)**

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	04/14/2025	ND	2.16	108	2.00	1.46		
Toluene*	<0.050	0.050	04/14/2025	ND	2.19	110	2.00	1.04		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.13	107	2.00	0.955		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.28	105	6.00	0.981		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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	04/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	199	99.6	200	2.32		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	201	100	200	2.12		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 86.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 83.9 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 100 4 (H252181-29)**

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	04/14/2025	ND	2.16	108	2.00	1.46	
Toluene*	<0.050	0.050	04/14/2025	ND	2.19	110	2.00	1.04	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.13	107	2.00	0.955	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.28	105	6.00	0.981	
Total BTEX	<0.300	0.300	04/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	64.0	16.0	04/14/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	199	99.6	200	2.32	
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	201	100	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 92.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 86.6 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 101 4 (H252181-30)**

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	04/14/2025	ND	2.16	108	2.00	1.46	
Toluene*	<0.050	0.050	04/14/2025	ND	2.19	110	2.00	1.04	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.13	107	2.00	0.955	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.28	105	6.00	0.981	
Total BTEX	<0.300	0.300	04/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	04/14/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	199	99.6	200	2.32	
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	201	100	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 88.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 84.6 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/10/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 102 4 (H252181-31)**

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	04/14/2025	ND	2.16	108	2.00	1.46		
Toluene*	<0.050	0.050	04/14/2025	ND	2.19	110	2.00	1.04		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.13	107	2.00	0.955		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.28	105	6.00	0.981		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 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	176	16.0	04/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	199	99.6	200	2.32		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	201	100	200	2.12		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 89.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 83.9 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: CS 57 A 2 (H252181-32)**

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	04/14/2025	ND	1.88	94.1	2.00	1.51	
Toluene*	<0.050	0.050	04/14/2025	ND	1.98	99.2	2.00	0.895	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	1.96	98.2	2.00	0.828	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.49	108	6.00	0.461	
Total BTEX	<0.300	0.300	04/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 129 % 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>464</b>	16.0	04/14/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	199	99.6	200	2.32	
<b>DRO &gt;C10-C28*</b>	<b>27.7</b>	10.0	04/14/2025	ND	201	100	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 86.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 81.1 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 04 0-2 (H252181-33)**

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	04/14/2025	ND	1.88	94.1	2.00	1.51	
Toluene*	<0.050	0.050	04/14/2025	ND	1.98	99.2	2.00	0.895	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	1.96	98.2	2.00	0.828	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.49	108	6.00	0.461	
Total BTEX	<0.300	0.300	04/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 129 % 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	80.0	16.0	04/14/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	199	99.6	200	2.32	
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	201	100	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 77.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 71.1 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 05 0-2 (H252181-34)**

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	04/14/2025	ND	1.88	94.1	2.00	1.51		
Toluene*	<0.050	0.050	04/14/2025	ND	1.98	99.2	2.00	0.895		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	1.96	98.2	2.00	0.828		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.49	108	6.00	0.461		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 128 % 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	80.0	16.0	04/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	199	99.6	200	2.32		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	201	100	200	2.12		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 89.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 81.6 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 06 0-2 (H252181-35)**

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	04/14/2025	ND	1.88	94.1	2.00	1.51		
Toluene*	<0.050	0.050	04/14/2025	ND	1.98	99.2	2.00	0.895		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	1.96	98.2	2.00	0.828		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.49	108	6.00	0.461		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 129 % 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>192</b>	16.0	04/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	199	99.6	200	2.32		
<b>DRO &gt;C10-C28*</b>	<b>29.7</b>	10.0	04/14/2025	ND	201	100	200	2.12		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 83.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.2 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 07 0-4 (H252181-36)**

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	04/14/2025	ND	1.88	94.1	2.00	1.51		
Toluene*	<0.050	0.050	04/14/2025	ND	1.98	99.2	2.00	0.895		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	1.96	98.2	2.00	0.828		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.49	108	6.00	0.461		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 129 % 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	04/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	199	99.6	200	2.32		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	201	100	200	2.12		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 78.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 73.9 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 09 0-3 (H252181-37)**

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	04/14/2025	ND	1.88	94.1	2.00	1.51		
Toluene*	<0.050	0.050	04/14/2025	ND	1.98	99.2	2.00	0.895		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	1.96	98.2	2.00	0.828		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.49	108	6.00	0.461		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 128 % 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	04/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	199	99.6	200	2.32		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	201	100	200	2.12		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 93.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.0 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 10 0-3 (H252181-38)**

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	04/14/2025	ND	1.88	94.1	2.00	1.51		
Toluene*	<0.050	0.050	04/14/2025	ND	1.98	99.2	2.00	0.895		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	1.96	98.2	2.00	0.828		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.49	108	6.00	0.461		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 128 % 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	64.0	16.0	04/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	199	99.6	200	2.32		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	201	100	200	2.12		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 77.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 71.5 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 11 0-3 (H252181-39)**

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	04/14/2025	ND	1.88	94.1	2.00	1.51	
Toluene*	<0.050	0.050	04/14/2025	ND	1.98	99.2	2.00	0.895	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	1.96	98.2	2.00	0.828	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.49	108	6.00	0.461	
Total BTEX	<0.300	0.300	04/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 129 % 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	04/14/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	199	99.6	200	2.32	
<b>DRO &gt;C10-C28*</b>	<b>63.2</b>	10.0	04/14/2025	ND	201	100	200	2.12	
<b>EXT DRO &gt;C28-C36</b>	<b>10.4</b>	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 86.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 84.6 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 12 0-3 (H252181-40)**

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	04/14/2025	ND	1.88	94.1	2.00	1.51	
Toluene*	<0.050	0.050	04/14/2025	ND	1.98	99.2	2.00	0.895	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	1.96	98.2	2.00	0.828	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.49	108	6.00	0.461	
Total BTEX	<0.300	0.300	04/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 130 % 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	64.0	16.0	04/14/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	199	99.6	200	2.32	
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	201	100	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 86.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.4 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 45 5 (H252181-41)**

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	04/14/2025	ND	1.88	94.1	2.00	1.51	
Toluene*	<0.050	0.050	04/14/2025	ND	1.98	99.2	2.00	0.895	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	1.96	98.2	2.00	0.828	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.49	108	6.00	0.461	
Total BTEX	<0.300	0.300	04/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 128 % 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	656	16.0	04/14/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	199	99.6	200	2.32	
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	201	100	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 82.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 77.2 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 77 5 (H252181-42)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/14/2025	ND	1.88	94.1	2.00	1.51		
Toluene*	<0.050	0.050	04/14/2025	ND	1.98	99.2	2.00	0.895		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	1.96	98.2	2.00	0.828		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.49	108	6.00	0.461		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 127 % 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	496	16.0	04/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	199	99.6	200	2.32		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	201	100	200	2.12		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 84.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.3 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 78 5 (H252181-43)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/14/2025	ND	1.88	94.1	2.00	1.51		
Toluene*	<0.050	0.050	04/14/2025	ND	1.98	99.2	2.00	0.895		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	1.96	98.2	2.00	0.828		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.49	108	6.00	0.461		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 128 % 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	04/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	199	99.6	200	2.32		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	201	100	200	2.12		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 82.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 77.5 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 96 6 (H252181-44)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/14/2025	ND	1.88	94.1	2.00	1.51		
Toluene*	<0.050	0.050	04/14/2025	ND	1.98	99.2	2.00	0.895		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	1.96	98.2	2.00	0.828		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.49	108	6.00	0.461		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 127 % 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	04/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	199	99.6	200	2.32		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	201	100	200	2.12		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 86.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 80.1 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 103 4 (H252181-45)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/14/2025	ND	1.88	94.1	2.00	1.51	
Toluene*	<0.050	0.050	04/14/2025	ND	1.98	99.2	2.00	0.895	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	1.96	98.2	2.00	0.828	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.49	108	6.00	0.461	
Total BTEX	<0.300	0.300	04/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 128 % 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	04/14/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	199	99.6	200	2.32	
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	201	100	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 83.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 77.5 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 104 4 (H252181-46)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/14/2025	ND	1.88	94.1	2.00	1.51	
Toluene*	<0.050	0.050	04/14/2025	ND	1.98	99.2	2.00	0.895	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	1.96	98.2	2.00	0.828	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.49	108	6.00	0.461	
Total BTEX	<0.300	0.300	04/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 129 % 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	04/14/2025	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	199	99.6	200	2.32	
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	201	100	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 87.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 81.1 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 21 0-4 (H252181-47)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/14/2025	ND	1.88	94.1	2.00	1.51		
Toluene*	<0.050	0.050	04/14/2025	ND	1.98	99.2	2.00	0.895		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	1.96	98.2	2.00	0.828		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.49	108	6.00	0.461		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 128 % 71.5-134

Chloride, SM4500Cl-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	04/14/2025	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	199	99.6	200	2.32		
<b>DRO &gt;C10-C28*</b>	<b>71.4</b>	10.0	04/14/2025	ND	201	100	200	2.12		
<b>EXT DRO &gt;C28-C36</b>	<b>28.8</b>	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 87.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 86.3 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 22 0-5 (H252181-48)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/14/2025	ND	1.88	94.1	2.00	1.51		
Toluene*	<0.050	0.050	04/14/2025	ND	1.98	99.2	2.00	0.895		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	1.96	98.2	2.00	0.828		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.49	108	6.00	0.461		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 128 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>48.0</b>	16.0	04/14/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	205	102	200	1.53		
<b>DRO &gt;C10-C28*</b>	<b>68.3</b>	10.0	04/14/2025	ND	200	100	200	0.573		
<b>EXT DRO &gt;C28-C36</b>	<b>23.9</b>	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 89.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 84.7 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 23 0-7 (H252181-49)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/14/2025	ND	1.88	94.1	2.00	1.51		
Toluene*	<0.050	0.050	04/14/2025	ND	1.98	99.2	2.00	0.895		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	1.96	98.2	2.00	0.828		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.49	108	6.00	0.461		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 127 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>32.0</b>	16.0	04/14/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	205	102	200	1.53		
<b>DRO &gt;C10-C28*</b>	<b>87.2</b>	10.0	04/14/2025	ND	200	100	200	0.573		
<b>EXT DRO &gt;C28-C36</b>	<b>36.6</b>	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 88.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 82.5 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 24 0-7 (H252181-50)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/14/2025	ND	1.88	94.1	2.00	1.51	
Toluene*	<0.050	0.050	04/14/2025	ND	1.98	99.2	2.00	0.895	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	1.96	98.2	2.00	0.828	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.49	108	6.00	0.461	
Total BTEX	<0.300	0.300	04/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 129 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	04/14/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	205	102	200	1.53	
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	200	100	200	0.573	
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 89.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 83.9 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 25 0-7 (H252181-51)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/14/2025	ND	1.88	94.1	2.00	1.51	
Toluene*	<0.050	0.050	04/14/2025	ND	1.98	99.2	2.00	0.895	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	1.96	98.2	2.00	0.828	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.49	108	6.00	0.461	
Total BTEX	<0.300	0.300	04/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 127 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	04/14/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	205	102	200	1.53	
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	200	100	200	0.573	
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 92.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 85.7 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 26 0-7 (H252181-52)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/14/2025	ND	2.21	110	2.00	5.84		
Toluene*	<0.050	0.050	04/14/2025	ND	2.06	103	2.00	6.47		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.03	102	2.00	6.20		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.26	104	6.00	5.46		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/14/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	205	102	200	1.53		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	200	100	200	0.573		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 86.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.6 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 13 0-4 (H252181-53)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/14/2025	ND	2.21	110	2.00	5.84		
Toluene*	<0.050	0.050	04/14/2025	ND	2.06	103	2.00	6.47		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.03	102	2.00	6.20		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.26	104	6.00	5.46		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	04/14/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	205	102	200	1.53		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	200	100	200	0.573		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 96.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 91.8 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 14 0-4 (H252181-54)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/14/2025	ND	2.21	110	2.00	5.84		
Toluene*	<0.050	0.050	04/14/2025	ND	2.06	103	2.00	6.47		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.03	102	2.00	6.20		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.26	104	6.00	5.46		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/14/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	205	102	200	1.53		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	200	100	200	0.573		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 82.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 89.7 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 15 0-5 (H252181-55)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/14/2025	ND	2.21	110	2.00	5.84		
Toluene*	<0.050	0.050	04/14/2025	ND	2.06	103	2.00	6.47		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.03	102	2.00	6.20		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.26	104	6.00	5.46		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	04/14/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	205	102	200	1.53		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	200	100	200	0.573		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 81.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 77.1 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 16 0-5 (H252181-56)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/14/2025	ND	2.21	110	2.00	5.84	
Toluene*	<0.050	0.050	04/14/2025	ND	2.06	103	2.00	6.47	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.03	102	2.00	6.20	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.26	104	6.00	5.46	
Total BTEX	<0.300	0.300	04/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/14/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	205	102	200	1.53	
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	200	100	200	0.573	
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 93.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.2 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 17 0-5 (H252181-57)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/14/2025	ND	2.21	110	2.00	5.84		
Toluene*	<0.050	0.050	04/14/2025	ND	2.06	103	2.00	6.47		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.03	102	2.00	6.20		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.26	104	6.00	5.46		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	04/14/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	205	102	200	1.53		
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	200	100	200	0.573		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 95.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 90.5 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 18 0-5 (H252181-58)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/14/2025	ND	2.21	110	2.00	5.84	
Toluene*	<0.050	0.050	04/14/2025	ND	2.06	103	2.00	6.47	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.03	102	2.00	6.20	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.26	104	6.00	5.46	
Total BTEX	<0.300	0.300	04/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/14/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	205	102	200	1.53	
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	200	100	200	0.573	
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 94.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 92.8 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 19 0-5 (H252181-59)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/14/2025	ND	2.21	110	2.00	5.84	
Toluene*	<0.050	0.050	04/14/2025	ND	2.06	103	2.00	6.47	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.03	102	2.00	6.20	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.26	104	6.00	5.46	
Total BTEX	<0.300	0.300	04/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	04/14/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	205	102	200	1.53	
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	200	100	200	0.573	
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 95.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 90.1 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 20 0-5 (H252181-60)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/14/2025	ND	2.21	110	2.00	5.84	
Toluene*	<0.050	0.050	04/14/2025	ND	2.06	103	2.00	6.47	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.03	102	2.00	6.20	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.26	104	6.00	5.46	
Total BTEX	<0.300	0.300	04/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/14/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	205	102	200	1.53	
DRO >C10-C28*	<10.0	10.0	04/14/2025	ND	200	100	200	0.573	
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 97.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 92.7 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 27 0-2 (H252181-61)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/14/2025	ND	2.21	110	2.00	5.84	
Toluene*	<0.050	0.050	04/14/2025	ND	2.06	103	2.00	6.47	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.03	102	2.00	6.20	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.26	104	6.00	5.46	
Total BTEX	<0.300	0.300	04/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16.0</b>	16.0	04/14/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	205	102	200	1.53	
<b>DRO &gt;C10-C28*</b>	<b>22.5</b>	10.0	04/14/2025	ND	200	100	200	0.573	
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 98.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 93.1 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 28 0-2 (H252181-62)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/14/2025	ND	2.21	110	2.00	5.84		
Toluene*	<0.050	0.050	04/14/2025	ND	2.06	103	2.00	6.47		
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.03	102	2.00	6.20		
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.26	104	6.00	5.46		
Total BTEX	<0.300	0.300	04/14/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>32.0</b>	16.0	04/14/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	205	102	200	1.53		
<b>DRO &gt;C10-C28*</b>	<b>27.1</b>	10.0	04/14/2025	ND	200	100	200	0.573		
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND						

Surrogate: 1-Chlorooctane 95.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 89.8 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/11/2025	Sampling Date:	04/11/2025
Reported:	04/16/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 29 0-2 (H252181-63)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/14/2025	ND	2.21	110	2.00	5.84	
Toluene*	<0.050	0.050	04/14/2025	ND	2.06	103	2.00	6.47	
Ethylbenzene*	<0.050	0.050	04/14/2025	ND	2.03	102	2.00	6.20	
Total Xylenes*	<0.150	0.150	04/14/2025	ND	6.26	104	6.00	5.46	
Total BTEX	<0.300	0.300	04/14/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16.0</b>	16.0	04/14/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/14/2025	ND	205	102	200	1.53	
<b>DRO &gt;C10-C28*</b>	<b>33.2</b>	10.0	04/14/2025	ND	200	100	200	0.573	
EXT DRO >C28-C36	<10.0	10.0	04/14/2025	ND					

Surrogate: 1-Chlorooctane 93.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.4 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Notes and Definitions**

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2478

BILL TO

ANALYSIS REQUEST

Project Manager: Tracy Hillard  
 Address: 601 N. Marland St. STE 400  
 City: Midland State: TX Zip: 79701  
 Phone #: 575-737-3406 Email: THillard@ensl.com  
 Project #: 081558453 Project Owner: VTO  
 Project Name: Big Eddy Unit 248H & 249H  
 Project Location: Eddy County  
 Sampler Name: Tarisha Goodwin

P.O. #: \_\_\_\_\_  
 Company: Enselum, Inc.  
 Attn: TG  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone #: \_\_\_\_\_  
 Email: \_\_\_\_\_

Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS REQUEST
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:			
11528181	ES29	4	C							4/10/25	1023	X	BTEX 8021
	ES30	4	C							1027	1040	X	TPH 8015
	ES48	4	C							1046	1048	X	Chlorides 4500
	ES50	7	C							1050	1024		
	ES51	7	C							1024	1026		
	ES52	7	C							1026	1028		
	ES54	7	C							1028	1059		
	ES55	5	C										
	ES62	3	C										
	ES63												

*Push added 2/25*

117  
1/6/25

Relinquished By: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_  
 Received By: Tracy Hillard  
 Received By: Tracy Hillard  
 Observed Temp. °C: 31.2  
 Corrected Temp. °C: 34.2  
 Sample Condition:  Cool  Heated  
 Checked By: TH  
 Verbal Result:  Yes  No  
 All Results are emailed. Please provide Email address: thillard@enselum.com  
 REMARKS: Payment/Evidence  
 Transducer ID: 48605000  
 Correction Factor: 49C ± 0.3°  
 Transducer ID: 48605000  
 Correction Factor: 49C ± 0.3°

† Cardinal cannot accept verbal changes. Please email changes to cely.keene@cardinalab.com

FORM-006 R 3.2 10/97/21



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Murdand, Hobbs, NM 88240  
 (575) 393-2326 FAX (575) 393-2476

Company Name: Ensoium, LLC

Project Manager: Tracy Hillard

Address: 601 N. Mansfield St. STE 400

City: Midland State: TX Zip: 79701

Phone #: 575-937-3706 Email: Hillard@ensium.com

Project #: 03CL155BH13 Project Owner: KRG

Project Location: Eddy County 2484 + 2491H

Sampler Name: Taktiva Guadalupe

Lab I.D. Sample I.D.

Sample Depth (feet)

(G)RAB OR (C)OMP.

# CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER: ACID/BASE

ICE / COOL

OTHER:

DATE

TIME

ANALYSIS REQUEST

BILL TO

P.O. #:

Company: Dow USA, Inc.

Attn:

Address:

City:

State:

Received By: [Signature]

Date: 4/11/25

Time: 3:44

Received By: [Signature]

Date: 4/11/25

Observed Temp. °C

Corrected Temp. °C

Sample Condition

Checked By: [Signature]

Delivered By: (Circle One)

Verbal Result:  Yes  No

Add'l Phone #

Remarks: Pyrite/ENSOIUM

CC: 114020101

4-11-25

Standard

Backlog (Add'l Sample Condition)

Corrected Factor

Corrected Temp. °C

4-11-25

NO SAMPLE #11.

removed from

custodian

4-11-25

4-11-25

FORM-006 R 13 10/07/21

Cardinal cannot accept verbal changes. Please email changes to celys@ensium.com

4-11-25

4-11-25

4-11-25





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: Envokum, LLC  
 Project Manager: Tracy Hillard  
 Address: 601 N. Mainfield St. STE 400  
 City: Midland State: TX Zip: 79701  
 Phone #: 575-937-8706 Email:  
 Project #: B3C13528453 Project Owner: XTO  
 Project Name: 819 Eddy Unit 248H & 249H  
 Project Location: Eddy County  
 Sampler Name: Tabitha Guadiana  
 P.O. #: Company: dmyusa, Inc. TS  
 Attn: Address: City: State: Zip: Phone #: Email:

Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX							DATE	TIME	ANALYSIS REQUEST	
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE				ICE / COOL
41501	FS102	4	C									4/16/15	13:31	X	BTEX 8021
30	CS57A	2	C									4/16/15	08:14	X	TPH 8015
33	SW04	0-2	C									4/16/15	08:16	X	Chlorides 4500
34	SW05	0-2	C									4/16/15	08:20		
35	SW06	0-2	C									4/16/15	09:30		
36	SW07	0-4	C									4/16/15	09:32		
37	SW09	0-3	C									4/16/15	09:34		
38	SW10	0-3	C									4/16/15	09:36		
39	SW11	0-3	C									4/16/15	09:38		
40	SW12	0-3	C									4/16/15	09:38		

Relinquished By: [Signature] Received By: [Signature]  
 Date: 4/16/15  
 Time: 3:44  
 Observed Temp. °C: 8.1  
 Corrected Temp. °C: 3.4  
 Sample Condition:  Good  Bad  
 Checked By: [Signature]  
 Verbal Results:  Yes  No  
 All Results are emailed. Please provide Email address: Hallard@enselva.com  
 REMARKS: Payroll#ENK09E  
 GFCM: 48605000 CC: 1140201001  
 The number of ALLY/NO Correction Factor: 0.05  
 Add'l Price #:  
 Add'l Price #:  
 Add'l Price #:  
 Add'l Price #:

Cardinal cannot accept verbal changes. Please email changes to celyshee@cardinalab.com

Bush added 2/14/15  
 4/17  
 4/16/15





CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

BILL TO

ANALYSIS REQUEST

Company Name: Ensochem, LLC  
 Project Manager: Tracy Howard  
 Address: 601 N. Marland St. STE 400  
 City: Midland State: TX Zip: 79701  
 Phone #: 575-1371-3700 Email: [redacted]  
 Project #: 03C1558453 Project Owner: KTO  
 Project Location: Big Edin Unit 2484 + 2494  
 Sampler Name: Tabitha Guadian  
 P.O. #: [redacted] Company: [redacted]  
 Address: [redacted] City: [redacted] State: [redacted] Zip: [redacted]  
 Phone #: [redacted] Email: [redacted]

Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX							DATE	TIME	
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE			
4820A	SW25	0-7	C								4/11/25	1250	X	BTEX 8021
	SW26	0-7	C								4/11/25	1252	X	TPH 8015
	SW13	0-4									4/11/25	1310		X Chlorides 4500
	SW14	0-4									4/11/25	1312		
	SW15	0-5									4/11/25	1314		
	SW16	0-5									4/11/25	1316		
	SW17	0-5									4/11/25	1318		
	SW18	0-5									4/11/25	1320		
	SW19	0-5									4/11/25	1322		
	SW20	0-5									4/11/25	1324		

Push added 21 May 9:04/4/25

6/17  
T6

Requisitioned By: [Signature]  
 Received By: [Signature]  
 Observed Temp: 8.4°C  
 Corrected Temp: 8.4°C  
 Sample Condition: Cool  Heat   
 Checked By: [Signature]  
 Verbal Review:  Yes  No  
 All Results are emitted. Please provide Email address: thillerde@ensolum.com  
 REMARKS: Paying/Ensochem  
 GFCH: 48605000 CC: 1140201001  
 Temperature:  Standard  Actual (Indy) Sample Condition  
 Cool  Heat  
 No  Yes  
 No  Yes

† Cardinal cannot accept verbal changes. Please email changes to cefey@ensolum.com





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

April 24, 2025

TRACY HILLARD  
ENSOLUM, LLC  
705 W WADLEY AVE.  
MIDLAND, TX 79705

RE: BIG EDDY UNIT 248H & 249H

Enclosed are the results of analyses for samples received by the laboratory on 04/21/25 11:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](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, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/21/2025	Sampling Date:	04/17/2025
Reported:	04/24/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 / 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 31 4 (H252357-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/22/2025	ND	2.05	102	2.00	4.31	
Toluene*	<0.050	0.050	04/22/2025	ND	2.20	110	2.00	2.12	
Ethylbenzene*	<0.050	0.050	04/22/2025	ND	2.05	103	2.00	3.02	
Total Xylenes*	<0.150	0.150	04/22/2025	ND	6.16	103	6.00	2.77	
Total BTEX	<0.300	0.300	04/22/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>240</b>	16.0	04/22/2025	ND	416	104	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	04/22/2025	ND	221	110	200	2.53	
<b>DRO &gt;C10-C28*</b>	<b>25.3</b>	10.0	04/22/2025	ND	219	109	200	8.23	
EXT DRO >C28-C36	<10.0	10.0	04/22/2025	ND					

Surrogate: 1-Chlorooctane 82.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 84.0 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/21/2025	Sampling Date:	04/17/2025
Reported:	04/24/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 / 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 34 2 (H252357-02)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/22/2025	ND	2.05	102	2.00	4.31		
Toluene*	<0.050	0.050	04/22/2025	ND	2.20	110	2.00	2.12		
Ethylbenzene*	<0.050	0.050	04/22/2025	ND	2.05	103	2.00	3.02		
Total Xylenes*	<0.150	0.150	04/22/2025	ND	6.16	103	6.00	2.77		
Total BTEX	<0.300	0.300	04/22/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/22/2025	ND	416	104	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	04/22/2025	ND	221	110	200	2.53		
DRO >C10-C28*	<10.0	10.0	04/22/2025	ND	219	109	200	8.23		
EXT DRO >C28-C36	<10.0	10.0	04/22/2025	ND						

Surrogate: 1-Chlorooctane 84.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 83.5 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	04/21/2025	Sampling Date:	04/17/2025
Reported:	04/24/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 / 03C1558577	Sample Received By:	Tamara Oldaker
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 21 0.5-4 (H252357-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/22/2025	ND	2.05	102	2.00	4.31	
Toluene*	<0.050	0.050	04/22/2025	ND	2.20	110	2.00	2.12	
Ethylbenzene*	<0.050	0.050	04/22/2025	ND	2.05	103	2.00	3.02	
Total Xylenes*	<0.150	0.150	04/22/2025	ND	6.16	103	6.00	2.77	
Total BTEX	<0.300	0.300	04/22/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	04/22/2025	ND	416	104	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	04/22/2025	ND	221	110	200	2.53	
DRO >C10-C28*	<10.0	10.0	04/22/2025	ND	219	109	200	8.23	
EXT DRO >C28-C36	<10.0	10.0	04/22/2025	ND					

Surrogate: 1-Chlorooctane 78.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 77.7 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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

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.

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: Tracy Hillard  
 Address: 601 N Marland Street, Suite 400  
 City: Midland State: TX Zip: 79701  
 Phone #: (575) 937-3906 Fax #:   
 Project #: 03C1558853 Project Owner: XTO Energy  
 Project Name: Big Eddy Unit 248 249 - SPILLS  
 Project Location: 32420780, -103.831565  
 Sampler Name: Trevor Wargo  
 P.O. #:   
 Company: XTO Energy, Inc  
 Attn: Colton Brown  
 Address: 3104 E Greene St  
 City: Carlsbad State: NM Zip: 88220  
 Phone #: (575) 937-3906 Fax #:   
 Matrix: GROUNDWATER, WASTEWATER, SOIL, OIL, SLUDGE, OTHER:   
 PRESERV: ICE / COOL, OTHER:   
 DATE: 4/17/25 TIME: 13:13

Lab I.D.	Sample I.D.	Depth (feet)	CONTAINERS		MATRIX							DATE	TIME	TPH 8015	BTEX 8021	Chloride 4500
			(G)RAB OR (C)OMP.	#	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
AK3859	FS31	4		1								4/17/25	13:13	✓	✓	✓
	FS34	2		1								4/17/25	13:38	✓	✓	✓
	SM21	0.5-4		1								4/17/25	13:08	✓	✓	✓

**PLEASE NOTE:** Liability and Damages: Cardinal's liability and claims exclusive remedy for any item being analyzed is limited to the amount paid by the client for the analysis. All items including those for emergency and any other items submitted shall be returned within 30 days after completion of the applicable analysis. 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 resulting from the performance of services hereunder by Cardinal. Inspection of whether such items represent liquid spill or the above stated violations is offered.

Relinquished By: Trevor Wargo  
 Date: 4/17/25  
 Received By:   
 Date: 4/17/25  
 Turnaround Time: 22 hrs  
 Standard  Bacteria (only)   
 Cool Intact  Observed Temp. °C   
 Corrected Temp. °C   
 Verbal Result:  Yes  No Add'l Phone #:   
 All Results are emailed. Please provide Email address:   
 BBell@ensolum.com, TMorrissey@ensolum.com,   
 THillard@ensolum.com, KThomason@ensolum.com  
 REMARKS: Incident Number:   
 Cost Center:   
 GFCM: 48605000  
 Thermometer ID:   
 Thermometer Error:   
 Corrected Temp. °C



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

March 10, 2025

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BIG EDDY UNIT 248H & 249H

Enclosed are the results of analyses for samples received by the laboratory on 03/07/25 13:58.

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  
 TRACY HILLARD  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	03/07/2025	Sampling Date:	03/06/2025
Reported:	03/10/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 01 2.5' (H251370-01)**

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	03/07/2025	ND	2.11	105	2.00	2.13	
Toluene*	<0.050	0.050	03/07/2025	ND	2.15	108	2.00	2.16	
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.17	108	2.00	2.16	
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.54	109	6.00	2.86	
Total BTEX	<0.300	0.300	03/07/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	03/10/2025	ND	400	100	400	18.2	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	204	102	200	0.426	
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	202	101	200	0.0752	
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND					

Surrogate: 1-Chlorooctane 108 % 44.4-145

Surrogate: 1-Chlorooctadecane 112 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 TRACY HILLARD  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	03/07/2025	Sampling Date:	03/06/2025
Reported:	03/10/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 02 2.5' (H251370-02)**

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	03/07/2025	ND	2.11	105	2.00	2.13		
Toluene*	<0.050	0.050	03/07/2025	ND	2.15	108	2.00	2.16		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.17	108	2.00	2.16		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.54	109	6.00	2.86		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	03/10/2025	ND	400	100	400	18.2		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	204	102	200	0.426		
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	202	101	200	0.0752		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 108 % 44.4-145

Surrogate: 1-Chlorooctadecane 110 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 TRACY HILLARD  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	03/07/2025	Sampling Date:	03/06/2025
Reported:	03/10/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 03 2.5' (H251370-03)**

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	03/07/2025	ND	2.11	105	2.00	2.13		
Toluene*	<0.050	0.050	03/07/2025	ND	2.15	108	2.00	2.16		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.17	108	2.00	2.16		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.54	109	6.00	2.86		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	03/10/2025	ND	400	100	400	18.2		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	204	102	200	0.426		
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	202	101	200	0.0752		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 116 % 44.4-145

Surrogate: 1-Chlorooctadecane 118 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 TRACY HILLARD  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	03/07/2025	Sampling Date:	03/06/2025
Reported:	03/10/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 04 2.5' (H251370-04)**

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	03/07/2025	ND	2.11	105	2.00	2.13		
Toluene*	<0.050	0.050	03/07/2025	ND	2.15	108	2.00	2.16		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.17	108	2.00	2.16		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.54	109	6.00	2.86		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>304</b>	16.0	03/10/2025	ND	400	100	400	18.2		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	204	102	200	0.426		
<b>DRO &gt;C10-C28*</b>	<b>10.6</b>	10.0	03/07/2025	ND	202	101	200	0.0752		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 109 % 44.4-145

Surrogate: 1-Chlorooctadecane 112 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 TRACY HILLARD  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	03/07/2025	Sampling Date:	03/06/2025
Reported:	03/10/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 05 2' (H251370-05)**

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	03/07/2025	ND	2.11	105	2.00	2.13		
Toluene*	<0.050	0.050	03/07/2025	ND	2.15	108	2.00	2.16		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.17	108	2.00	2.16		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.54	109	6.00	2.86		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<b>272</b>	16.0	03/10/2025	ND	400	100	400	18.2		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	204	102	200	0.426		
<b>DRO &gt;C10-C28*</b>	<b>17.7</b>	10.0	03/07/2025	ND	202	101	200	0.0752		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 111 % 44.4-145

Surrogate: 1-Chlorooctadecane 114 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 TRACY HILLARD  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	03/07/2025	Sampling Date:	03/06/2025
Reported:	03/10/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 08 2' (H251370-06)**

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	03/07/2025	ND	2.11	105	2.00	2.13		
Toluene*	<0.050	0.050	03/07/2025	ND	2.15	108	2.00	2.16		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.17	108	2.00	2.16		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.54	109	6.00	2.86		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	03/10/2025	ND	400	100	400	18.2		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	194	97.1	200	0.892		
DRO >C10-C28*	127	10.0	03/07/2025	ND	195	97.4	200	1.25		
EXT DRO >C28-C36	29.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 116 % 44.4-145

Surrogate: 1-Chlorooctadecane 124 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 TRACY HILLARD  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	03/07/2025	Sampling Date:	03/06/2025
Reported:	03/10/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 09 2' (H251370-07)**

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	03/07/2025	ND	2.11	105	2.00	2.13		
Toluene*	<0.050	0.050	03/07/2025	ND	2.15	108	2.00	2.16		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.17	108	2.00	2.16		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.54	109	6.00	2.86		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	03/10/2025	ND	400	100	400	18.2		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	194	97.1	200	0.892		
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	195	97.4	200	1.25		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 119 % 44.4-145

Surrogate: 1-Chlorooctadecane 123 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 TRACY HILLARD  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	03/07/2025	Sampling Date:	03/06/2025
Reported:	03/10/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 10 2' (H251370-08)**

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	03/07/2025	ND	2.11	105	2.00	2.13		
Toluene*	<0.050	0.050	03/07/2025	ND	2.15	108	2.00	2.16		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.17	108	2.00	2.16		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.54	109	6.00	2.86		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	03/10/2025	ND	400	100	400	18.2		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	194	97.1	200	0.892		
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	195	97.4	200	1.25		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 114 % 44.4-145

Surrogate: 1-Chlorooctadecane 119 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 TRACY HILLARD  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	03/07/2025	Sampling Date:	03/06/2025
Reported:	03/10/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 11 2' (H251370-09)**

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	03/07/2025	ND	2.11	105	2.00	2.13		
Toluene*	<0.050	0.050	03/07/2025	ND	2.15	108	2.00	2.16		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.17	108	2.00	2.16		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.54	109	6.00	2.86		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	03/10/2025	ND	400	100	400	18.2		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	194	97.1	200	0.892		
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	195	97.4	200	1.25		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 121 % 44.4-145

Surrogate: 1-Chlorooctadecane 125 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 TRACY HILLARD  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	03/07/2025	Sampling Date:	03/06/2025
Reported:	03/10/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 12 2' (H251370-10)**

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	03/07/2025	ND	2.11	105	2.00	2.13		
Toluene*	<0.050	0.050	03/07/2025	ND	2.15	108	2.00	2.16		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.17	108	2.00	2.16		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.54	109	6.00	2.86		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	03/10/2025	ND	400	100	400	18.2		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	194	97.1	200	0.892		
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	195	97.4	200	1.25		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 112 % 44.4-145

Surrogate: 1-Chlorooctadecane 117 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 TRACY HILLARD  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	03/07/2025	Sampling Date:	03/06/2025
Reported:	03/10/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 13 2' (H251370-11)**

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	03/07/2025	ND	2.11	105	2.00	2.13		
Toluene*	<0.050	0.050	03/07/2025	ND	2.15	108	2.00	2.16		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.17	108	2.00	2.16		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.54	109	6.00	2.86		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>144</b>	16.0	03/10/2025	ND	400	100	400	18.2		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	194	97.1	200	0.892		
<b>DRO &gt;C10-C28*</b>	<b>113</b>	10.0	03/07/2025	ND	195	97.4	200	1.25		
<b>EXT DRO &gt;C28-C36</b>	<b>13.2</b>	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 110 % 44.4-145

Surrogate: 1-Chlorooctadecane 118 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 TRACY HILLARD  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	03/07/2025	Sampling Date:	03/06/2025
Reported:	03/10/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 14 2' (H251370-12)**

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	03/07/2025	ND	2.11	105	2.00	2.13		
Toluene*	<0.050	0.050	03/07/2025	ND	2.15	108	2.00	2.16		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.17	108	2.00	2.16		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.54	109	6.00	2.86		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>176</b>	16.0	03/10/2025	ND	400	100	400	18.2		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	194	97.1	200	0.892		
<b>DRO &gt;C10-C28*</b>	<b>26.9</b>	10.0	03/07/2025	ND	195	97.4	200	1.25		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 111 % 44.4-145

Surrogate: 1-Chlorooctadecane 116 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 TRACY HILLARD  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	03/07/2025	Sampling Date:	03/06/2025
Reported:	03/10/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558587	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 15 2' (H251370-13)**

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	03/07/2025	ND	2.11	105	2.00	2.13		
Toluene*	<0.050	0.050	03/07/2025	ND	2.15	108	2.00	2.16		
Ethylbenzene*	<0.050	0.050	03/07/2025	ND	2.17	108	2.00	2.16		
Total Xylenes*	<0.150	0.150	03/07/2025	ND	6.54	109	6.00	2.86		
Total BTEX	<0.300	0.300	03/07/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	03/10/2025	ND	400	100	400	18.2		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/07/2025	ND	194	97.1	200	0.892		
DRO >C10-C28*	<10.0	10.0	03/07/2025	ND	195	97.4	200	1.25		
EXT DRO >C28-C36	<10.0	10.0	03/07/2025	ND						

Surrogate: 1-Chlorooctane 114 % 44.4-145

Surrogate: 1-Chlorooctadecane 117 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Notes and Definitions**

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

<b>Company Name:</b> Ensolum, LLC <b>Project Manager:</b> Tracy Hillard <b>Address:</b> 3122 National Parks Hwy <b>City:</b> Carlsbad <b>State:</b> NM <b>Zip:</b> 88220 <b>Phone #:</b> 575-937-3906 <b>Fax #:</b> <b>Project #:</b> 03C1558453 & 03C1558887 <b>Project Owner:</b> XTO <b>Project Name:</b> Big Eddy Unit 248 H & 249H <b>Project Location:</b> 32.62085, -103.83132 <b>Sampler Name:</b> Jesse Dorman		<b>BILL TO</b> <b>P.O. #:</b> <b>Company:</b> XTO Energy Inc. <b>Attn:</b> Colton Brown <b>Address:</b> 3104 E. Green St. <b>City:</b> Carlsbad <b>State:</b> NM <b>Zip:</b> 88220 <b>Phone #:</b> <b>Fax #:</b>	
<b>Lab I.D.</b> HB51370 12M7V5R00		<b>Sample I.D.</b> F501 F502 F503 F504 F505 F508 F509 F510 F511 F512	<b>Sample Depth (feet)</b> 2.5' 2' 2' 2' 2' 2' 2' 2' 2' 2'
<b>Retinquished By:</b> [Signature] <b>Relinquished By:</b> [Signature]		<b>Date:</b> 3/7/15 <b>Time:</b> 12:34 <b>Date:</b> 3/7/15 <b>Time:</b> 13:58	<b>Received By:</b> [Signature] <b>Received By:</b> [Signature]
<b>Delivered By:</b> (Circle One) Michaels ChemStables [Signature]		<b>Observed Temp. °C:</b> 3.6 <b>Corrected Temp. °C:</b> 3.6	<b>Sample Condition</b> Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Sampler - UPS - Bus - Other:</b>		<b>Observed Temp. °C:</b> 3.6 <b>Corrected Temp. °C:</b> 3.6	<b>CHECKED BY:</b> [Signature]
<b>Remarks:</b> Cool Center: 1140201001 Incident ID: NAPP2418043567, NAPP2432147637, NAPP2432531235, NAPP2502042071 Turnaround Time: Standard Rush Thermonet ID: 4537460 Corrected Temp. °C: 3.244r		<b>Verbal Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Phone #:</b> All Results are emailed. Please provide Email address: <a href="mailto:Thillard@ensolum.com">Thillard@ensolum.com</a> <a href="mailto:BBell@ensolum.com">BBell@ensolum.com</a> <a href="mailto:TMorrissey@ensolum.com">TMorrissey@ensolum.com</a> <a href="mailto:kthornston@ensolum.com">kthornston@ensolum.com</a>	
<b>Matrix:</b> GROUNDWATER, WASTEWATER, SOIL, OIL, SLUDGE, OTHER: (G)RAB OR (C)OMP # CONTAINERS MATRIX PRESERV: ICE / COOL OTHER:		<b>SAMPLING</b> DATE: 3/6/15 TIME: 10:42, 10:45, 10:48, 10:50, 11:30, 12:45, 13:55, 13:58	
<b>Analysis Request:</b> BTEX, TPH, CHLORIDE		[Handwritten checkmarks and data for analysis request]	

FORM 006 R 1.2 10/01/21

† Cardinal cannot accept verbal changes. Please email changes to [celey.keene@cardinallabsnm.com](mailto:celey.keene@cardinallabsnm.com)



**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

101 East Marland, Hobbs, NM 88240  
 (575) 393-2326 FAX (575) 393-2476

Company Name: Ensolum, LLC		P.O. #:	
Project Manager: Tracy Hillard		Company: XTO Energy Inc.	
Address: 3122 National Parks Hwy		Attn: Colton Brown	
City: Carlsbad		Address: 3104 E. Green St.	
State: NM Zip: 88220		City: Carlsbad	
Phone #: 575-937-3906		State: NM Zip: 88220	
Fax #:		Phone #:	
Project #: 03C1558453 & 03C1558887		Project Owner: XTO	
Project Name: Big Eddy Unit 248 H & 249H		State: NM Zip: 88220	
Project Location: 32.62085, -103.83132		Phone #:	
Sampler Name: Jesse Dorman		Fax #:	

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					
405370	F513	2'	C	4								3/6/25	1325			
12	F514											1327				
13	F515											1330				
517																

PLEASE NOTE: Liability and Damages. Cardinal's liability and claims exclusion apply for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the services. All claims, including those for negligence and any other claims whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. This event shall constitute the final and exclusive determination of the parties. Cardinal, its subsidiaries, affiliates, agents, employees, and representatives shall not be liable for incidental or consequential damages, including without limitation, business interruption, loss of use, or loss of profits, caused by any of the above stated reasons or otherwise. This event shall constitute the final and exclusive determination of the parties. Cardinal, its subsidiaries, affiliates, agents, employees, and representatives shall not be liable for incidental or consequential damages, including without limitation, business interruption, loss of use, or loss of profits, caused by any of the above stated reasons or otherwise.

Relinquished By: <i>[Signature]</i>	Date: 3/7/25	Received By: <i>Nickolas Christakis</i>	Date: 3/7/25
Time: 12:34	Time: 1:58	Time: 1:58	Time: 1:58
Delivered By: (Circle One) UPS - Bus - Other	Corrected Temp. °C: 3.5	Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>	CHECKED BY: (Initials) <i>AB</i>
Turnaround Time: <i>3.75 hrs</i>	Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>	Bacteria (only) <input type="checkbox"/>	Sample Condition Cool <input type="checkbox"/> Intact <input type="checkbox"/>
Thermometer ID: <i>415</i>	Corrected Temp. °C: <i>3.8</i>	Corrected Temp. °C: <i>3.8</i>	Corrected Temp. °C: <i>3.8</i>

Verbal Result:  Yes  No Add'l Phone #: *Thillard@ensolum.com*  
 All Results are emailed. Please provide Email address: *Thillard@ensolum.com*  
 REMARKS: *Cost Center: 1140201001*  
 Incident ID: *NAPP2418043567, NAPP2432147637, NAPP2432531235, NAPP2502042071*  
 Email: *Bell@ensolum.com* TMorrissey@ensolum.com *kit@ensolum.com*

FORM 006 R 3.2 (10/01/21)

Cardinal cannot accept verbal changes. Please email changes to *celery.keene@cardinalabnm.com*



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

May 01, 2025

TRACY HILLARD  
ENSOLUM, LLC  
705 W WADLEY AVE.  
MIDLAND, TX 79705

RE: BIG EDDY UNIT 248H & 249H

Enclosed are the results of analyses for samples received by the laboratory on 04/25/25 12:52.

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:	04/25/2025	Sampling Date:	04/25/2025
Reported:	05/01/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 45 6' (H252510-01)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/29/2025	ND	2.19	110	2.00	1.00		
Toluene*	<0.050	0.050	04/29/2025	ND	2.17	108	2.00	0.494		
Ethylbenzene*	<0.050	0.050	04/29/2025	ND	2.11	106	2.00	0.679		
Total Xylenes*	<0.150	0.150	04/29/2025	ND	6.19	103	6.00	0.716		
Total BTEX	<0.300	0.300	04/29/2025	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	
Chloride	144	16.0	04/28/2025	ND	400	100	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/28/2025	ND	200	99.9	200	4.14		
DRO >C10-C28*	<10.0	10.0	04/28/2025	ND	202	101	200	4.24		
EXT DRO >C28-C36	<10.0	10.0	04/28/2025	ND						

Surrogate: 1-Chlorooctane 103 % 44.4-145

Surrogate: 1-Chlorooctadecane 106 % 40.6-153

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:	04/25/2025	Sampling Date:	04/25/2025
Reported:	05/01/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 55 7.5' (H252510-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2025	ND	2.19	110	2.00	1.00	
Toluene*	<0.050	0.050	04/29/2025	ND	2.17	108	2.00	0.494	
Ethylbenzene*	<0.050	0.050	04/29/2025	ND	2.11	106	2.00	0.679	
Total Xylenes*	<0.150	0.150	04/29/2025	ND	6.19	103	6.00	0.716	
Total BTEX	<0.300	0.300	04/29/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 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
<b>Chloride</b>	<b>144</b>	16.0	04/28/2025	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/28/2025	ND	200	99.9	200	4.14	
DRO >C10-C28*	<10.0	10.0	04/28/2025	ND	202	101	200	4.24	
EXT DRO >C28-C36	<10.0	10.0	04/28/2025	ND					

Surrogate: 1-Chlorooctane 105 % 44.4-145

Surrogate: 1-Chlorooctadecane 108 % 40.6-153

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:	04/25/2025	Sampling Date:	04/25/2025
Reported:	05/01/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 59 4-7.5' (H252510-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2025	ND	2.19	110	2.00	1.00	
Toluene*	<0.050	0.050	04/29/2025	ND	2.17	108	2.00	0.494	
Ethylbenzene*	<0.050	0.050	04/29/2025	ND	2.11	106	2.00	0.679	
Total Xylenes*	<0.150	0.150	04/29/2025	ND	6.19	103	6.00	0.716	
Total BTEX	<0.300	0.300	04/29/2025	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>80.0</b>	16.0	04/28/2025	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/28/2025	ND	200	99.9	200	4.14	
<b>DRO &gt;C10-C28*</b>	<b>92.3</b>	10.0	04/28/2025	ND	202	101	200	4.24	
<b>EXT DRO &gt;C28-C36</b>	<b>10.4</b>	10.0	04/28/2025	ND					

Surrogate: 1-Chlorooctane 98.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 105 % 40.6-153

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:	04/25/2025	Sampling Date:	04/25/2025
Reported:	05/01/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 60 4-7.5' (H252510-04)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2025	ND	2.19	110	2.00	1.00	
Toluene*	<0.050	0.050	04/29/2025	ND	2.17	108	2.00	0.494	
Ethylbenzene*	<0.050	0.050	04/29/2025	ND	2.11	106	2.00	0.679	
Total Xylenes*	<0.150	0.150	04/29/2025	ND	6.19	103	6.00	0.716	
Total BTEX	<0.300	0.300	04/29/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	04/28/2025	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/28/2025	ND	200	99.9	200	4.14	
DRO >C10-C28*	<10.0	10.0	04/28/2025	ND	202	101	200	4.24	
EXT DRO >C28-C36	<10.0	10.0	04/28/2025	ND					

Surrogate: 1-Chlorooctane 93.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 96.8 % 40.6-153

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:	04/25/2025	Sampling Date:	04/25/2025
Reported:	05/01/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO-EDDY CO., NM		

**Sample ID: FS 61 4-7.5' (H252510-05)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2025	ND	2.19	110	2.00	1.00	
Toluene*	<0.050	0.050	04/29/2025	ND	2.17	108	2.00	0.494	
Ethylbenzene*	<0.050	0.050	04/29/2025	ND	2.11	106	2.00	0.679	
Total Xylenes*	<0.150	0.150	04/29/2025	ND	6.19	103	6.00	0.716	
Total BTEX	<0.300	0.300	04/29/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.3 % 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	48.0	16.0	04/28/2025	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/28/2025	ND	200	99.9	200	4.14	
DRO >C10-C28*	<10.0	10.0	04/28/2025	ND	202	101	200	4.24	
EXT DRO >C28-C36	<10.0	10.0	04/28/2025	ND					

Surrogate: 1-Chlorooctane 99.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 102 % 40.6-153

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:	04/25/2025	Sampling Date:	04/25/2025
Reported:	05/01/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Tamara Oldaker
Project Location:	XTO-EDDY CO., NM		

**Sample ID: SW 23 0-7' (H252510-06)**

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	04/29/2025	ND	2.19	110	2.00	1.00		
Toluene*	<0.050	0.050	04/29/2025	ND	2.17	108	2.00	0.494		
Ethylbenzene*	<0.050	0.050	04/29/2025	ND	2.11	106	2.00	0.679		
Total Xylenes*	<0.150	0.150	04/29/2025	ND	6.19	103	6.00	0.716		
Total BTEX	<0.300	0.300	04/29/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.4 % 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	
Chloride	192	16.0	04/28/2025	ND	400	100	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	04/28/2025	ND	200	99.9	200	4.14		
DRO >C10-C28*	<10.0	10.0	04/28/2025	ND	202	101	200	4.24		
EXT DRO >C28-C36	<10.0	10.0	04/28/2025	ND						

Surrogate: 1-Chlorooctane 88.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 90.7 % 40.6-153

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

**Notes and Definitions**

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

\*=Accredited Analyte

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



101 East Marland, Hobbs, NM 88240  
 (575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Ensolum, LLC</u> Project Manager: <u>Tracy Hillard</u> Address: <u>601 N Mariewald St Ste 400</u> City: <u>Midland</u> State: <u>TX</u> Zip: <u>79701</u> Phone #: <u>575-937-3704</u> Fax #: _____ Project #: <u>03CIS78453</u> Project Owner: _____ Project Name: <u>Big Eddy Unit 218H + 249H</u> Project Location: <u>Eddy County</u> Sampler Name: <u>Takitha Guadian</u>		P.O. #: _____ Company: _____ Attn: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____	
Lab I.D.: <u>H353570</u> Sample I.D.: _____ Depth (ft): _____		(G)RAB OR (C)OMP _____ # CONTAINERS _____ GROUNDWATER _____ WASTEWATER _____ SOIL _____ OIL _____ SLUDGE _____ OTHER: _____ ACID/BASE: _____ ICE / COOL _____ OTHER: _____	
Date: <u>4/25/25</u> Time: <u>1859</u> Received By: <u>[Signature]</u>		DATE: _____ TIME: _____ DATE: <u>4/25/25</u> TIME: _____	
Relinquished By: <u>[Signature]</u> Date: _____ Time: _____		Verbal Results: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: _____ All Results are emailed. Please provide Email address: _____ REMARKS: <u>Thillard@ensolum.com</u> <u>CC: 114020100</u> <u>GFCH: 48605000</u>	
Delivered By: (Circle One) _____ Sampler - UPS - Bus - Other: _____ Observed Temp. °C: <u>4/4</u> Corrected Temp. °C: <u>4/7</u>		Sample Condition: _____ Cool Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Checked By: <u>[Signature]</u> Turnaround Time: _____ Thermometer ID #140 _____ Correction Factor +0.3°C _____ Bacteria (only) Sample Condition: _____ Cool Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Observed Temp. °C: _____ Corrected Temp. °C: _____	

† Cardinal cannot accept verbal changes. Please email changes to caley.keene@cardinallabsnm.com



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

March 14, 2025

TRACY HILLARD

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BIG EDDY UNIT 248H & 249H

Enclosed are the results of analyses for samples received by the laboratory on 03/13/25 13:05.

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  
 TRACY HILLARD  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	03/13/2025	Sampling Date:	03/11/2025
Reported:	03/14/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 08 3' (H251493-01)**

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	03/13/2025	ND	2.26	113	2.00	4.63	
Toluene*	<0.050	0.050	03/13/2025	ND	2.24	112	2.00	4.27	
Ethylbenzene*	<0.050	0.050	03/13/2025	ND	2.14	107	2.00	4.61	
Total Xylenes*	<0.150	0.150	03/13/2025	ND	6.28	105	6.00	4.55	
Total BTEX	<0.300	0.300	03/13/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.3 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	03/14/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/13/2025	ND	213	107	200	2.96	
DRO >C10-C28*	<10.0	10.0	03/13/2025	ND	193	96.6	200	1.12	
EXT DRO >C28-C36	<10.0	10.0	03/13/2025	ND					

Surrogate: 1-Chlorooctane 85.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.8 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 TRACY HILLARD  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	03/13/2025	Sampling Date:	03/11/2025
Reported:	03/14/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 13 3' (H251493-02)**

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	03/13/2025	ND	2.26	113	2.00	4.63	
Toluene*	<0.050	0.050	03/13/2025	ND	2.24	112	2.00	4.27	
Ethylbenzene*	<0.050	0.050	03/13/2025	ND	2.14	107	2.00	4.61	
Total Xylenes*	<0.150	0.150	03/13/2025	ND	6.28	105	6.00	4.55	
Total BTEX	<0.300	0.300	03/13/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.6 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	03/14/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/13/2025	ND	213	107	200	2.96	
DRO >C10-C28*	<10.0	10.0	03/13/2025	ND	193	96.6	200	1.12	
EXT DRO >C28-C36	<10.0	10.0	03/13/2025	ND					

Surrogate: 1-Chlorooctane 96.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 100 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 TRACY HILLARD  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	03/13/2025	Sampling Date:	03/11/2025
Reported:	03/14/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 28 3' (H251493-03)**

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	03/13/2025	ND	2.26	113	2.00	4.63		
Toluene*	<0.050	0.050	03/13/2025	ND	2.24	112	2.00	4.27		
Ethylbenzene*	<0.050	0.050	03/13/2025	ND	2.14	107	2.00	4.61		
Total Xylenes*	<0.150	0.150	03/13/2025	ND	6.28	105	6.00	4.55		
Total BTEX	<0.300	0.300	03/13/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.9 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	03/14/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/13/2025	ND	213	107	200	2.96		
DRO >C10-C28*	<10.0	10.0	03/13/2025	ND	193	96.6	200	1.12		
EXT DRO >C28-C36	<10.0	10.0	03/13/2025	ND						

Surrogate: 1-Chlorooctane 97.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 105 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 TRACY HILLARD  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	03/13/2025	Sampling Date:	03/11/2025
Reported:	03/14/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 33 2' (H251493-04)**

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	03/13/2025	ND	2.26	113	2.00	4.63		
Toluene*	<0.050	0.050	03/13/2025	ND	2.24	112	2.00	4.27		
Ethylbenzene*	<0.050	0.050	03/13/2025	ND	2.14	107	2.00	4.61		
Total Xylenes*	<0.150	0.150	03/13/2025	ND	6.28	105	6.00	4.55		
Total BTEX	<0.300	0.300	03/13/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.2 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	03/14/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	03/13/2025	ND	213	107	200	2.96		
DRO >C10-C28*	<10.0	10.0	03/13/2025	ND	193	96.6	200	1.12		
EXT DRO >C28-C36	<10.0	10.0	03/13/2025	ND						

Surrogate: 1-Chlorooctane 100 % 44.4-145

Surrogate: 1-Chlorooctadecane 103 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 TRACY HILLARD  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	03/13/2025	Sampling Date:	03/11/2025
Reported:	03/14/2025	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H & 249H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453 & 03C1558577	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62085-103.83132		

**Sample ID: FS 34 2' (H251493-05)**

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	03/13/2025	ND	2.26	113	2.00	4.63	
Toluene*	<0.050	0.050	03/13/2025	ND	2.24	112	2.00	4.27	
Ethylbenzene*	<0.050	0.050	03/13/2025	ND	2.14	107	2.00	4.61	
Total Xylenes*	<0.150	0.150	03/13/2025	ND	6.28	105	6.00	4.55	
Total BTEX	<0.300	0.300	03/13/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.6 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	03/14/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/13/2025	ND	213	107	200	2.96	
DRO >C10-C28*	<10.0	10.0	03/13/2025	ND	193	96.6	200	1.12	
EXT DRO >C28-C36	<10.0	10.0	03/13/2025	ND					

Surrogate: 1-Chlorooctane 99.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 103 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

*Celey D. Keene*

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**

<b>Company Name:</b> Ensolum, LLC <b>Project Manager:</b> Tracy Hillard <b>Address:</b> 3122 National Parks Hwy <b>City:</b> Carlsbad <b>Phone #:</b> 575-937-3906 <b>Project #:</b> 03C1558453 & 03C1558577 <b>Project Name:</b> Big Eddy Unit 248 H & 249H <b>Project Location:</b> 32.62085, -103.83132 <b>Sampler Name:</b> Jesse Dorman		<b>State:</b> NM <b>Zip:</b> 88220 <b>Project Owner:</b> XTO <b>Address:</b> 3104 E. Green St. <b>City:</b> Carlsbad <b>State:</b> NM <b>Zip:</b> 88220	
<b>FOR LAB USE ONLY</b> <b>Lab I.D.:</b> HBSN493 <b>Sample I.D.:</b> F508, F513, F526, F533, F534 <b>Sample Depth (feet):</b> 3', 3', 3', 3' <b>Matrix:</b> GROUNDWATER, WASTEWATER, SOIL, OIL, SLUDGE, OTHER:		<b>BILL TO</b> <b>P.O. #:</b> <b>Company:</b> XTO Energy Inc. <b>Attn:</b> Colton Brown <b>Address:</b> 3104 E. Green St. <b>City:</b> Carlsbad <b>State:</b> NM <b>Zip:</b> 88220	
<b>PREPARE NOTE:</b> (Lobby and Design) Customer's safety and health are our top priority. For any down string where needed in contact or but shall be tested to the amount used by the client for the analysis. All claims involving health or negligence and any other third party shall be the client's responsibility. In no event shall Cardinal be liable for treatment or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors in any way or related to the performance of services rendered by Cardinal.		<b>ANALYSIS REQUEST</b> <b>DATE:</b> 5/18/25 <b>TIME:</b> 12:21 <b>BTEX:</b> [ ] <b>TPH:</b> [ ] <b>CHLORIDE:</b> [ ]	
<b>Relinquished By:</b> [Signature] <b>Received By:</b> Speckington <b>Date:</b> 5/20/25 <b>Time:</b> 3:30 PM		<b>Verbal Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Phone #:</b> <b>All Results are emailed. Please provide Email address:</b> T.Hillard@ensolum.com <b>REMARKS:</b> Cost Center: 1140201001 <b>Incident ID:</b> NAPP241804398, NAPP243247637, NAPP2432531235, NAPP2502042071 <b>Thyroid Test:</b> #140403 <b>Standard Push:</b> [ ] <b>Bacteria (only):</b> [ ] <b>Sample Condition:</b> [ ] <b>Observed Temp. °C:</b> [ ] <b>Corrected Temp. °C:</b> [ ]	

FORM 006 R 1.2 1/00/721

† Cardinal cannot accept verbal changes. Please email changes to colley.keene@cardinallabsnm.com

**From:** [Tacoma Morrissey](#)  
**To:** [Wells, Shelly, EMNRD](#)  
**Subject:** [EXTERNAL] Re: BIG EDDY UNIT 248H Questions  
**Date:** Monday, May 19, 2025 9:24:43 PM  
**Attachments:** [Outlook-x4a1ngup.png](#)  
[Outlook-srae3svz.png](#)  
[Outlook-z1t5mkk4.png](#)  
[Outlook-kxygfmh5](#)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Hi Shelly,

I appreciate you reaching out about these questions. The photos all include coordinates and a brief description, though in the future we will provide additional detail. Perhaps there is an issue during upload that makes the photos unclear?

Attached are photos showing the area of FS59 through FS61. Due to the sloping of the excavation, the sidewall samples were collected from the surface to 4 feet along the slope and the floor samples were collected from 4 feet to the bottom of the excavation, approximately 7.5 feet bgs.

Regarding sample FS34, we had two different field staff respond to the Site and collect confirmation soil samples between 3/11 and 3/13. There was a miscommunication on what samples were collected on 3/11, leading to an additional sample in the same location and name collected on 3/13/2025. Field screenings indicated there were likely no contaminants of concern, so the sample was submitted to the lab on the same COC as several other confirmation soil samples. When laboratory analytical results returned the floor sample was failing. As such a third sample was collected following a 1 in scrape of the area. The source of the contamination noted in the 3/13/2025 sample was not seen in subsequent sampling. No staining, odor, or other indications of contamination were noted in the vicinity of FS34 and field screening readings for all three samples collected for FS34 did not indicate any impacted soil. Because the soil samples for FS34 were included with others on the COC we reported all the results. Sincerest apologies for the confusion.

Please let me know if you have further questions or if I can provide additional information. Feel free to call to discuss if that is easier, though I will be traveling tomorrow.

Hope you have a good week!



**Tacoma Morrissey**

Associate Principal

337-257-8307

**Ensolum, LLC**

**in f X**

---

**From:** Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>  
**Sent:** Monday, May 19, 2025 10:08 AM  
**To:** Tacoma Morrissey <tmorrissey@ensolum.com>  
**Subject:** BIG EDDY UNIT 248H Questions

[ \*\*EXTERNAL EMAIL\*\* ]

Good morning Tacoma,

I am reviewing the closure reports for the four incidents for BIG EDDY UNIT 248H and have questions. As the photos are not easy to see and are uncaptioned, can you please provide photos for me that show the areas where excavation went from 4 ft to 7.5 ft depth (FS 59, FS 60, and FS 61)? Also can you please explain what happened at FS34? It was collected on 3/11/25 and was below reclamation limits, then recollected thereafter and failed and then recollected at the same depth and below reclamation limits. I look forward to hearing what you have to say.

Sincerely,

Shelly

Shelly Wells \* Environmental Specialist-Advanced  
Environmental Bureau  
EMNRD-Oil Conservation Division  
1220 S. St. Francis Drive|Santa Fe, NM 87505  
(505)469-7520 [Shelly.Wells@emnrd.nm.gov](mailto:Shelly.Wells@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>



APPENDIX C  
February 4, 2025,  
*Remediation Work Plan*

---



February 4, 2025

New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**Re: Remediation Work Plan  
Big Eddy Unit 248H and 249H  
Incident Numbers: nAPP2418043567, nAPP2432147637, nAPP2432531235, &  
nAPP2502042071  
API: 30-015-40714 & 30-015-40715  
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared the following *Remediation Work Plan (Work Plan)* to document the assessment and delineation activities completed to date and propose a plan to address impacted soil identified at the Big Eddy Unit 248H and Big Eddy Unit 249H (Site), where a total of four releases occurred on the same pad. The purpose of the assessment and delineation activities was to assess the lateral and vertical extent of impacted soil resulting from multiple releases of produced water and crude oil at the Site. The following *Work Plan* proposes to excavate impacted soil within the release extent areas.

## **SITE DESCRIPTION AND RELEASE BACKGROUND**

All releases occurred in Eddy County, New Mexico (32.62087°, -103.83145°), at the Big Eddy Unit 248H and Big Eddy Unit 249H wellhead locations. Release extent areas located west of the wellheads are located in Unit A, Section 35, Township 19 South, Range 31 East, and are associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM). Release extent areas located east of the wellheads are located in Unit D, Section 36, Township 19 South, and Range 31 on State Land managed by New Mexico State Land Office (SLO) under Lease ID V0-6323-0003.

### **Incident Number: nAPP2418043567**

On June 21, 2024, the packing on the wellhead stuffing box failed, resulting in the release of approximately 5 barrels (bbls) of crude oil and 9 bbls of produced water onto the surface of the pad and lightly over-spraying the northwest area of the pad and surrounding pasture following the dominant wind direction that day. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 5 bbls of fluids were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) and submitted a Notification of Release (NOR) and Initial C-141 Application (C-141) on June 28, 2024. The release was assigned Incident Number nAPP2418043567.

On September 20, 2024, XTO submitted a Remediation Work Plan (*September 2024 Work Plan*) to the NMOCD describing Site assessment and delineation activities completed. The *September 2024 Work Plan* proposed the following remediation activities:

XTO Energy, Inc.  
Remediation Work Plan  
Big Eddy Unit 248H and 249H

- Excavation of an estimated 1,500 cubic yards of total petroleum hydrocarbon (TPH)- and chloride-impacted soil to be removed;
- The excavation will be backfilled and recontoured to match pre-existing conditions. Reclamation and reseeding of the on-pad area will occur during pad abandonment; and
- The area of investigation will continue to be monitored, and photo documentation of the vegetation will be included in the final *Closure Report*.

On November 6, 2024, NMOCD approved the *September 2024 Work Plan* with the following conditions:

*All samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards from Table 1 of the OCD Spill Rule for site assessment/characterization/proven depth to water determination. Sidewall/Edge samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. The release area will need confirmation floor/sidewall samples representing no more than 200 ft<sup>2</sup>. All sidewall samples should be taken from the sidewall of the excavation. Please make sure that the edge of the release extent is accurately defined. Confirmation samples will need to be conducted at surface and at 0.5 feet in the "Area of Investigation" to ensure that contaminants didn't get carried/deposited in this area. All off-pad areas must meet reclamation/revegetation standards set forth in the OCD Spill Rule.*

On January 16, 2025, and after Site discussions with the NMOCD, XTO requested a sampling variance for the "area of investigation" confirmation floor soil sample size to be 1,000 square feet. The NMOCD approved the sampling variance the same day.

#### **Incident Numbers: nAPP2432147637, nAPP2432531235, and nAPP2502042071**

On November 16, 2024, the packing on the stuffing box of the Big Eddy Unit 249H well failed, resulting in the release of approximately 10 bbls of crude oil onto the surface of the well pad. No fluids were recovered. XTO reported the release to the NMOCD and submitted a NOR and C-141 on November 16, 2024. The release was assigned Incident Number nAPP2432147637.

On November 19, 2024, an equipment failure at the Big Eddy Unit 248H wellhead resulted in the release of approximately 22 bbls of crude oil and 1 bbls of produced water onto the surface of the well pad. Four bbls of fluids were recovered. XTO reported the release to the NMOCD and submitted a NOR and C-141 on November 20, 2024. The release was assigned Incident Number nAPP2432531235.

On January 17, 2025, an equipment failure at the Big Eddy Unit 249H wellhead resulted in the release of approximately 33 bbls of crude oil and 29 bbls of produced water onto the surface of the pad. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 35 bbls of fluids were recovered. Furthermore, approximately 73 thousand cubic feet (Mcf) of natural gas were vented during the release. XTO reported the release to the NMOCD and submitted a NOR and C-141 on November 20, 2024. The release was assigned Incident Number nAPP2502042071.

#### **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.

XTO Energy, Inc.  
Remediation Work Plan  
Big Eddy Unit 248H and 249H

Based on the results of the Site Characterization, presented in the approved *September 2024 Work Plan*, the following NMOCD Table I Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH): 100 mg/kg
- Chloride: 600 mg/kg

## NMSLO CULTURAL RESOURCES AND BIOLOGICAL REVIEW

### Cultural Properties Protection

Since the release occurred on the well pad in the area governed by SLO, the Site is exempt from the Cultural Properties Protection Rule (CPP). As such, no additional cultural resource surveys were completed in connection with these releases.

### Biological Review

Ensolum personnel conducted a desktop review to establish if the Site is within an area of possible threatened, endangered, and sensitive wildlife and plant species, environmentally sensitive areas, surface waters, and sensitive soils.

- A review of the U.S. Fish and Wildlife Services Information for Planning and Consultation (IPaC) resources indicated there are no critical wildlife habitats at the Site. A review of the Bureau of Land Management (BLM) New Mexico Plant Wildlife Habitat maps indicated potential habitats for Dunes Sage Brush Lizard and Lesser Prairie Chicken near the Site. Threatened and endangered species are potentially present in the area surrounding the Site; however, no native vegetation outside of the well pad extent will be disturbed during remediation activities.
  - From March 1<sup>st</sup> through June 15<sup>th</sup>, no remediation activities will occur between the hours of 3:00 am to 9:00 am to protect any Lesser Prairie Chickens within the area.
- No sensitive receptors were identified near the Site as determined by the Site Characterization. The strictest Table I Closure Criteria is being applied to the Site due to a lack of recent depth to groundwater within 0.5 miles.
- The Natural Resources Conservation Service (NRCS) Web Soil Survey classifies the soil type at the Site as Wink loamy fine sand. The Wink loamy fine sand is not considered a sensitive soil per the SLO guidelines. The release occurred on the caliche surface of the well pad limiting contact with potentially sensitive native soil.

## SITE ASSESSMENT ACTIVITIES

On November 20, 2024 and January 17, 2025, Ensolum personnel conducted Site assessment activities to evaluate the three additional releases based on information provided on the C-141 and visual observations. Ensolum personnel mapped the four releases utilizing a handheld Global Positioning System (GPS) unit. It was confirmed that the November 2024 and January 2025 releases overlapped the proposed area of excavation presented in the *September 2024 Work Plan*, but did not overlap the area of investigation. All release extent areas are depicted on Figure 1. Both November 2024 release extents covered the same area and are presented on Figure 1 as a single release extent.

XTO Energy, Inc.  
Remediation Work Plan  
Big Eddy Unit 248H and 249H

## ADDITIONAL DELINEATION SOIL SAMPLING ACTIVITIES

On January 31, 2025, Ensolum conducted delineation activities. Five potholes (PH01 through PH05) were advanced within the release extent via backhoe to a maximum depth of 9 feet below ground surface (bgs). Discrete soil samples were collected from each delineation pothole at depths ranging from 0.5 feet to 9 feet bgs. Due to open excavations from ongoing remediation activities conducted for Incident Number nAPP2418043567, delineation pothole PH01 was advanced in the open excavation where discrete soil sampling started at 5 feet bgs and delineation pothole PH04 began at 1-foot bgs. The delineation soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride utilizing Hach® chloride QuanTab® test strips. Field screening results and observations were logged on lithologic/soil sampling logs, which are included in Appendix A. Delineation pothole locations are depicted on Figure 1. Photographic documentation was completed during all Site visits and is presented on a Photographic Log included in Appendix B.

The delineation 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 (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following Standards Method SM4500.

## LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for all delineation soil samples collected in PH01, collected on January 31, 2025, indicated all COCs were in compliance with Closure Criteria. Laboratory analytical results for soil sample PH02, collected at 1-foot bgs on January 31, 2025, contained elevated TPH concentrations that were within range of the concentrations detected from a sample collected from the same location in 2024. Laboratory analytical results for pothole PH03 indicated chloride concentrations exceeded Closure Criteria at 1-foot bgs but were in compliance with Closure Criteria at 4 feet bgs, successfully defining the vertical extent of that release area. Delineation soil sample PH04, collected at 4 feet bgs, indicated TPH and chloride concentrations exceeded Closure Criteria. The soil sample collected from PH05 at 1-foot bgs contained elevated BTEX, TPH, and chloride concentrations. The sample collected one foot deeper (PH05 at 2 feet bgs) did not exceed Closure Criteria for VOCs, but remained elevated for chloride. All other delineation soil samples collected on January 31, 2025, indicated COC concentrations were in compliance with Closure Criteria. All laboratory analytical results are summarized on Table 1. This includes all soil samples collected before January 31, 2025, which are presented in the *September 2024 Work Plan* included in Appendix C. All laboratory analytical reports are included in Appendix D.

## PROPOSED REMEDIATION WORK PLAN

The delineation soil sampling results indicated soil containing elevated BTEX, TPH, and chloride concentrations exists across an approximate 34,375 square foot area in the release extents on pad and extends to depths ranging from 0.5 feet to 4 feet bgs. As such, XTO proposes to complete the following remediation activities:

- Excavation of impacted soil will proceed vertically and laterally until confirmation floor and sidewall soil samples confirm all COC concentrations are compliant with the Closure Criteria. The proposed excavation extent is depicted in Figure 2;

XTO Energy, Inc.  
Remediation Work Plan  
Big Eddy Unit 248H and 249H

- An estimated 3,800 cubic yards of impacted soil will be excavated. The excavated soil will be transferred a New Mexico approved landfill facility for disposal;
- As stated in the approved sampling variance for Incident Number nAPP2418043567, the “area of investigation” will be composite sampled in a 1,000 square-foot sampling frequency. The initial proposed excavation for Incident Number nAPP2418043567 will be sampled in a 200 square-foot sampling frequency. The approved sampling variance email is provided in Appendix E;
- Due to the size of the release extent for the November 2024 and January 2025 releases, XTO requests a variance for the frequency of confirmation soil samples. XTO proposes 5-point composite soil samples to be collected at a sampling frequency of 400 square feet along the excavation floor, outside of the June 21, 2024 release extent area, and a sampling frequency of 200 square feet along all excavation sidewalls. The proposed sampling frequency would reduce the total number of samples from approximately 395 confirmation soil samples (200 square feet) to approximately 339 confirmation soil samples. The soil samples will be handled and submitted for the same COCs described above. The NMOCD approved sampling grid is presented on Figure 2 and the newly proposed sampling grid is presented on Figure 3; and,
- The excavation will be backfilled and recontoured to match pre-existing conditions. Reclamation and reseeding of the on-pad area will occur during pad abandonment.

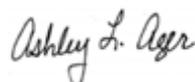
XTO will complete the excavation and soil sampling activities within 90 days of the date of approval of this *Work Plan* by the NMOCD.

If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely,  
**Ensolum, LLC**



Tracy Hillard  
Project Engineer



Ashley Ager, PG, MS  
Principal

cc: Ashley McAfee, XTO  
Kaylan Dirkx, XTO  
New Mexico State Land Office  
Bureau of Land Management

Appendices:

- Figure 1 Delineation Soil Sample Locations
- Figure 2 Proposed Excavation Extent - 200 Square Foot Frequency
- Figure 3 Proposed Excavation Extent - 400 Square Foot Frequency
- Table 1 Soil Sample Analytical Results
- Appendix A Lithologic / Soil Sampling Logs
- Appendix B Photographic Log
- Appendix C *Remediation Work Plan*; dated September 20, 2024

XTO Energy, Inc.  
Remediation Work Plan  
Big Eddy Unit 248H and 249H

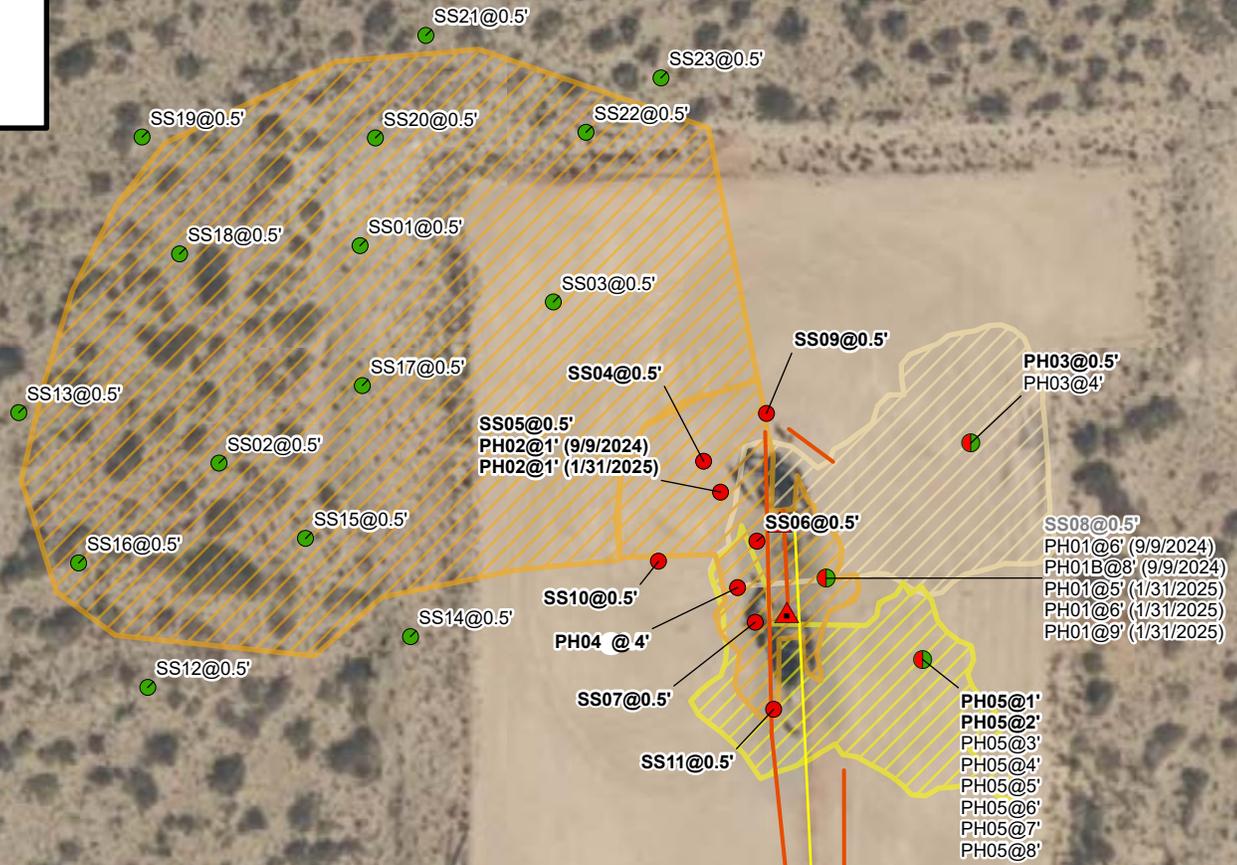
Appendix D Laboratory Analytical Reports & Chain-of-Custody Documentation  
Appendix E NMOCD Correspondence



FIGURES

### Legend

- Delineation Soil Sample in Compliance with Closure Criteria
- Delineation Soil Sample with Concentrations Exceeding Closure Criteria
- Delineation Soil Sample with Concentrations Previously Exceeding Closure Criteria
- ▲ Point of Release (POR)
- Electric Utility Line
- Oil and Gas Utility Line
- Release Extent - nAPP2418043567
- Release Extent - nAPP24321476375 & nAPP2432531235
- Release Extent - nAPP2502042071



Notes:  
 Sample ID @ Depth Below Ground Surface.  
 Samples in bold indicate sample exceeded applicable closure criteria.  
 Grey text indicate soil sample was removed during excavation activities.



Sources: Environmental Systems Research Institute (ESRI)

## Delineation Soil Sample Locations

XTO Energy, Inc  
 Big Eddy Unit 248H and 249H  
 Incident Numbers: nAPP2418043567,  
 nAPP2432147637, nAPP2432531235, and nAPP2502042071  
 Unit A, Section 35, T 19S, R 31E  
 Eddy County, New Mexico

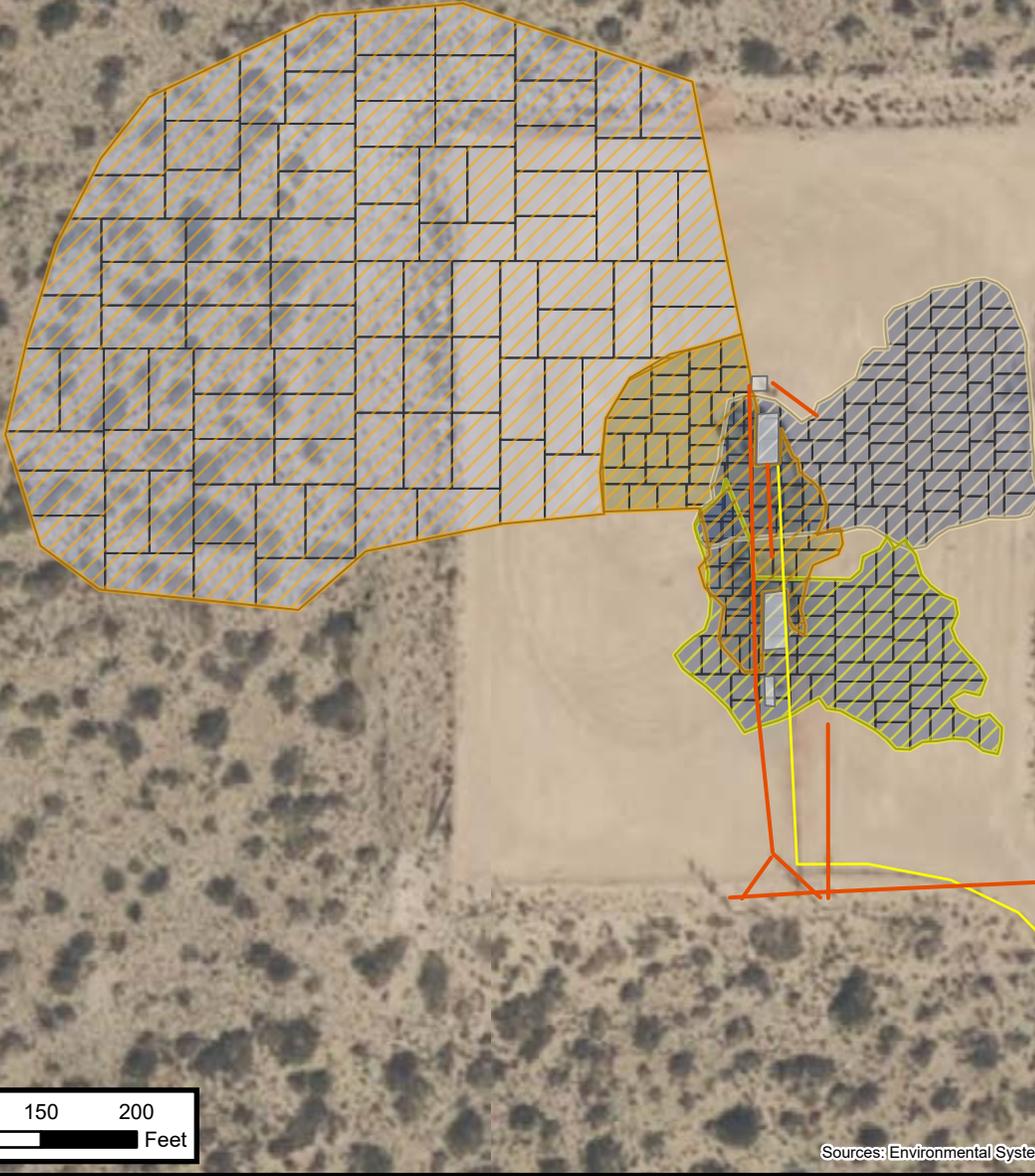
### FIGURE

# 1



### Legend

-  Electric Utility Line
-  Oil and Gas Utility Line
-  Release Extent - nAPP2418043567
-  Release Extent - nAPP24321476375 & nAPP2432531235
-  Release Extent - nAPP2502042071
-  Production Equipment
-  Sample Grid 1000 Sqft
-  Sample Grid 200 Sqft
-  Sample Grid 200 Sqft



Sources: Environmental Systems Research Institute (ESRI)

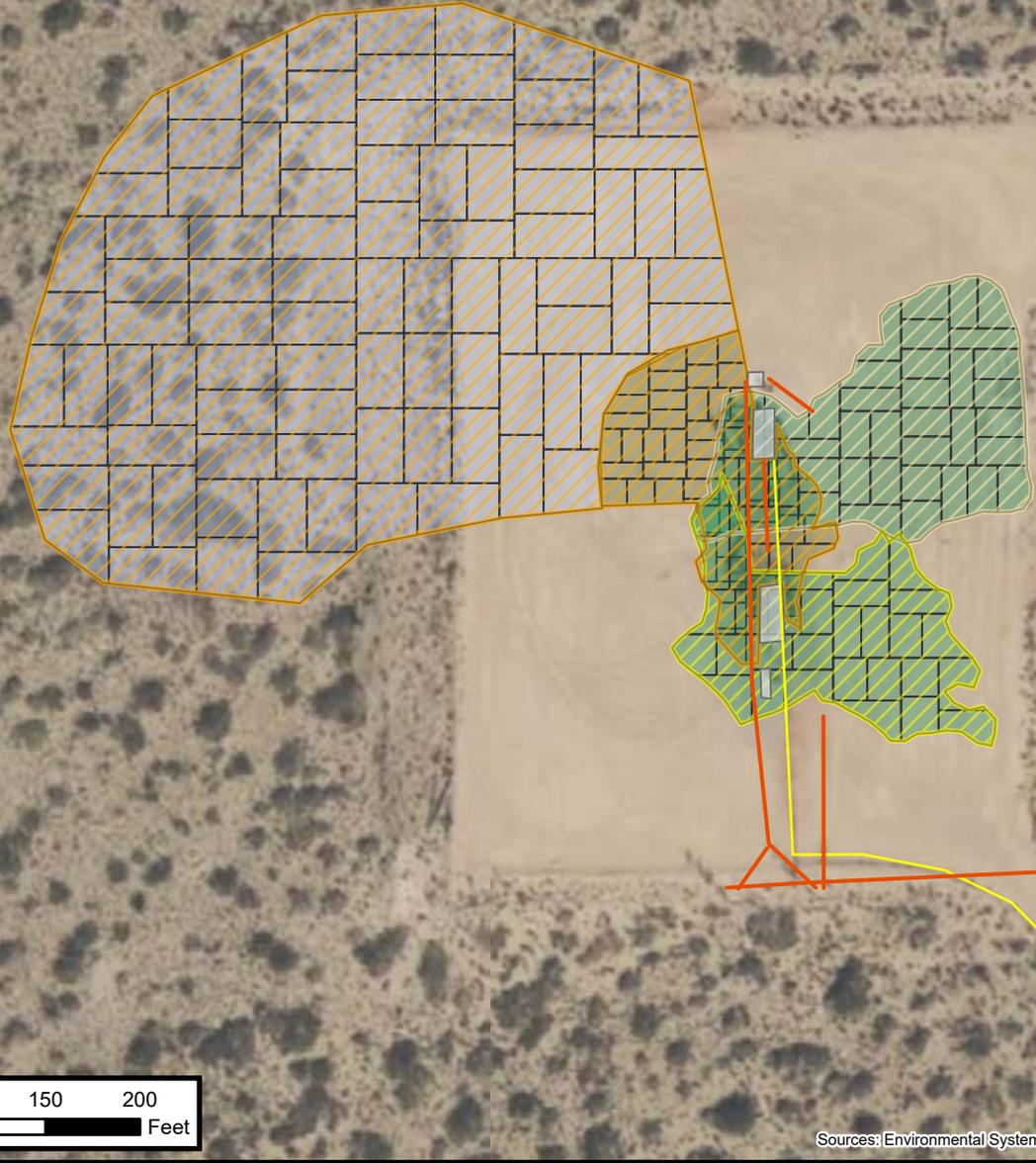


**Proposed Excavation Extent - 200 square foot frequency**  
 XTO Energy, Inc  
 Big Eddy Unit 248H and 249H  
 Incident Numbers: nAPP2418043567,  
 nAPP2432147637, nAPP2432531235, and nAPP2502042071  
 Unit A, Section 35, T 19S, R 31E  
 Eddy County, New Mexico

**FIGURE**  
**2**

**Legend**

-  Electric Utility Line
-  Oil and Gas Utility Line
-  Production Equipment
-  Release Extent - nAPP2418043567
-  Release Extent - nAPP24321476375 & nAPP2432531235
-  Release Extent - nAPP2502042071
-  Sample Grid 1000 Sqft
-  Sample Grid 200 Sqft
-  Sample Grid 400 Sqft



Sources: Environmental Systems Research Institute (ESRI)



**Proposed Excavation Extent - 400 square foot frequency**

XTO Energy, Inc  
 Big Eddy Unit 248H and 249H  
 Incident Numbers: nAPP2418043567,  
 nAPP2432147637, nAPP2432531235, and nAPP2502042071  
 Unit A, Section 35, T 19S, R 31E  
 Eddy County, New Mexico

**FIGURE**

**3**



TABLES



**TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS  
Big Eddy Unit 248H and 249H  
XTO Energy, Inc  
Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
<b>Delineation Soil Samples</b>										
SS01	07/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SS02	07/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SS03	07/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	240
SS04	07/29/2024	0.5	<0.050	<0.300	<10.0	182	55.3	182	<b>237</b>	560
SS05	07/29/2024	0.5	<0.050	<0.300	<10.0	1,870	465	1,870	<b>2,335</b>	<b>1,650</b>
PH02	09/09/2024	1	<0.050	<0.300	<10.0	87.4	13.3	87.4	<b>101</b>	192
PH02	01/31/2025	1	<0.050	<0.300	<10.0	135	54.7	135	<b>190</b>	176
SS06	07/29/2024	0.5	<0.050	5.16	75.7	2,710	613	2,786	<b>3,399</b>	<b>1,250</b>
SS07	07/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<b>640</b>
SS08	07/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<b>13,600</b>
PH01	09/09/2024	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<b>752</b>
PH01B	09/09/2024	8	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
PH01	01/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	224
PH01	01/31/2025	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	256
PH01	01/31/2025	9	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
SS09	07/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<b>1,060</b>
SS10	07/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<b>1,570</b>
SS11	07/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<b>1,060</b>
SS12	07/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SS13	07/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SS14	09/17/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SS15	09/17/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS16	09/17/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS17	09/17/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS18	09/17/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS19	09/17/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0



**TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS  
Big Eddy Unit 248H and 249H  
XTO Energy, Inc  
Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCD Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>100</b>	<b>600</b>
SS20	09/17/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS21	09/17/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS22	09/17/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS23	09/17/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
PH03	01/31/2025	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<b>4,040</b>
PH03	01/31/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
PH04	01/31/2025	4	<0.050	<0.300	<10.0	179	41.8	179	<b>221</b>	<b>1,010</b>
PH05	01/31/2025	1	1.15	<b>53.1</b>	419	1,550	277	1,969	<b>2,246</b>	<b>2,480</b>
PH05	01/31/2025	2	<0.050	0.474	<10.0	20.7	<10.0	20.7	20.7	<b>640</b>
PH05	01/31/2025	3	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	144
PH05	01/31/2025	4	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
PH05	01/31/2025	5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
PH05	01/31/2025	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
PH05	01/31/2025	7	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
PH05	01/31/2025	8	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation requirement where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities



## APPENDIX A

### Lithologic Soil Sampling Logs

---

		Sample Name: PH01		Date: 9/9/2024				
		Site Name: Big Eddy Unit 248H						
		Incident Number: NAPP2418043567						
		Job Number: 03C1558453						
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>				Logged By: JD		Method: Backhoe		
Coordinates: 32.620931, -103.831294				Hole Diameter: 24"		Total Depth: 8'		
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	12,611	0.0	N	SS08	0.5	0	CCHE	(0-8') CALICHE, tan, fine grained, some sand, well sorted, no odor
						1		
						2		
						3		
						4		Soil excavated to 4' bgs between 9/4/24 and 9/9/2024
						5		
D	929.6	0.0		PH01	6	6		
D	1,495	0.0				7		
D	<162	0.0		PH01A	8	8		
Total Depth @ 8 feet bgs								

					Sample Name:PH01		Date: 1/31/2025	
					Site Name: Big Eddy Unit 248H & 249H			
					Incident Numbers: nAPP2418043567, nAPP2432147637, nAPP2432531235, & nAPP2502042071			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>					Logged By: ER		Method: BackHoe	
Coordinates: 32.620930, -103.831295					Hole Diameter: 3'		Total Depth: 9'	
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
						0		(0-5') Open excavation
						1		
						2		
						3		
						4		
D	274	0.4	Y	PH01	5	5	CCHE	(0-9') CALICHE, tan-gray, coarse - fine grained, non-cohesive
D	162	0.4	Y	PH01	6	6		
D	<162	0.7	Y			7		
D	<162	0.6	Y			8		
D	<162	0.5	Y	PH01	9	9	SP-SC	(@9') SAND, brown, fine to medium grained sand w/silt
Total Depth @ 9 feet bgs								

					Sample Name: PH02		Date: 9/9/2024	
					Site Name: Big Eddy Unit 248H			
					Incident Number: NAPP2418043567			
					Job Number: 03C1558453			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>					Logged By: JD		Method: Backhoe	
Coordinates: 32.621056, -103.831474					Hole Diameter: 24"		Total Depth: 1'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	1,609	24.8	Y	SS05	0.5	0	CCHE	(0-1') CALICHE, tan, fine grained, some sand, well sorted, odor
D	201.6	0.0	N	PH02	1	1		(@1') no odor
						Total Depth @ 1-foot bgs		

					Sample Name: PH02		Date: 1/31/2025			
					Site Name: Big Eddy Unit 248H & 249H				Incident Numbers: nAPP2418043567, nAPP2432147637, nAPP2432531235, & nAPP2502042071	
					<b>LITHOLOGIC / SOIL SAMPLING LOG</b>				Logged By: ER	
Coordinates: 32.621056, -103.831472					Hole Diameter: 3'		Total Depth: 1'			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. 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	<162	0.2	Y	PH02	1	0 1	CCHE	(0-1') CALICHE, tan, fine to coarse grained, w/ silt		
						Total Depth @ 1-foot bgs				

					Sample Name: PH03		Date: 1/31/2025			
					Site Name: Big Eddy Unit 248H & 249H				Incident Numbers: nAPP2418043567, nAPP2432147637, nAPP2432531235, & nAPP2502042071	
					<b>LITHOLOGIC / SOIL SAMPLING LOG</b>				Logged By: ER	
Coordinates: 32.621123, -103.831045					Hole Diameter: 3'		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	4356	0.2	Y	PH03	1	0	CCHE	(0-4') CALICHE, grey-brown, fine to coarse grained, non-cohesive, w/silt		
D	1540	0.1	Y			1				
D	1713	0.0	Y			2				
D	<162	0.5	Y	PH03	4	3				
						Total depth @ 4 feet bgs				



							Sample Name: PH05		Date: 1/31/2025			
							Site Name: Big Eddy Unit 248H & 249H				Incident Numbers: nAPP2418043567, nAPP2432147637, nAPP2432531235, & nAPP2502042071	
							LITHOLOGIC / SOIL SAMPLING LOG				Logged By: ER	
Coordinates: 32.620811, -103.831131							Hole Diameter: 3'		Total Depth: 8'			
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				
						0	CCHE	(0-8') CALICHE, tan-grey, fine to medium grained, w/ silt, non-cohesive				
D		554.6	Y	PH05	1	1						
D		70.2	Y	PH05	2	2						
D		32.3	Y	PH05	3	3						
D		35.9	Y	PH05	4	4						
D		27.7	Y	PH05	5	5						
D	<162	5.8	Y	PH05	6	6						
D		10.7	Y	PH05	7	7						
D	<162	4.6	Y	PH05	8	8						
Total Depth @ 8 feet bgs												



APPENDIX B

Photographic Log

---



Photographic Log

XTO Energy, Inc

Big Eddy Unit 248H and 249H  
nAPP2418043567, nAPP2432147637,  
nAPP2432531235, & nAPP2502042071



Photograph: 1 Date: 11/20/2024  
Description: Soil staining - nAPP2432147637, nAPP2432531235  
View: North

Photograph: 2 Date: 1/17/2025  
Description: Soil staining - nAPP2502042071  
View: North



Photograph: 3 Date: 1/31/2025  
Description: Delineation activities  
View: West

Photograph: 4 Date: 1/31/2025  
Description: Delineation activities  
View: Northwest



APPENDIX C  
*Remediation Work Plan;*  
dated September 20, 2024

---



September 19, 2024

New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**Re: Remediation Work Plan  
Big Eddy Unit 248H  
Incident Number NAPP2418043567  
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared the following *Remediation Work Plan (Work Plan)* to document the site assessment activities completed to date and propose a plan to address impacted soil identified at the Big Eddy Unit 248H (Site). The purpose of the site assessment activities was to assess the lateral and vertical extent of impacted soil resulting from a release of produced water and crude oil at the Site. The following *Work Plan* proposes to excavate impacted soil within the release extent.

## **SITE DESCRIPTION AND RELEASE SUMMARY**

The release was initially reported at the incorrect location but following a review of initial release records, internal documents, and personnel communications, it was confirmed the release is located on the Big Eddy Unit 248H well pad. The majority of the release is located in Unit A, Section 35, Township 19 South, Range 31 East, in Eddy County, New Mexico (32.62087°, -103.83145°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM). However, a portion of the release occurred on State Land managed by New Mexico State Land Office (SLO) in Unit D, Section 36, Township 19 South, and Range 31 East.

On June 21, 2024, the packing on the stuffing box of the well failed, resulting in the release of approximately 5 barrels (bbls) of crude oil and 9 bbls of produced water onto the surface of the pad and lightly over-spraying the northwest area of the pad and surrounding pasture due the dominant wind direction that day. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 5 bbls of fluids were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) and submitted a Notification of Release (NOR) and Initial C-141 Application (C-141) on June 28, 2024. The release was assigned Incident Number NAPP2418043567.

## **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 the nearest groundwater well data. The closest permitted groundwater well with depth to

XTO Energy, Inc.  
Remediation Work Plan  
Big Eddy Unit 248H

groundwater data is New Mexico Office of the State Engineer (NMOSE) well CP-641, located approximately 0.4 miles southeast of the Site. The depth to groundwater in the well, 130 feet bgs, was most recently measured on February 23, 1982. All wells used for depth to water determination are depicted on Figure 1 and the referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a lakebed approximately 12,400 feet southeast 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 nearest groundwater data exceeding 25 years in age, and no other data available within 0.5 miles as preferred by the NMOCD, the following Table I Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH): 100 mg/kg
- Chloride: 600 mg/kg

## CULTURAL PROPERTIES

Since the release remained on pad in the area governed by SLO, the Site is exempt from the Cultural Properties Protection (CPP) Rule. As such no additional cultural resource surveys were completed in connection with this release.

## SITE ASSESSMENT ACTIVITIES

On July 29, 2024, Ensolum personnel conducted a Site assessment to evaluate the release based on information provided on the C-141 and visual observations. Ensolum personnel identified the release extent, approximately 10,700 square feet, based on visual observations of stained soil. Ensolum personnel also identified an approximately 88,300 square-foot area in the northwest corner of the pad and pasture where high winds had carried a *de minimus* volume of fluid spray from the release. This area is considered an area of investigation. Ensolum personnel collected thirteen delineation soil samples (SS01 through SS13) within and around the release extent and area of investigation. The delineation soil samples were collected at a depth of 0.5 feet bgs to determine the presence or absence of impacted soil. The delineation soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The release extent, area of investigation, and delineation soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico, for analysis of the following constituents of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following Standards Method SM4500. Based on field screenings and laboratory analytical results, additional delineation of the release extent and further assessment of the area of investigation in the northwest corner of the pad and pasture was warranted.

XTO Energy, Inc.  
Remediation Work Plan  
Big Eddy Unit 248H

## DELINEATION SOIL SAMPLING ACTIVITIES

On September 9, 2024, Ensolum returned to the Site to remove gross impacts and conduct additional delineation. Saturated soil was removed around the wellhead, but field screening results for VOCs and chloride in excavation soil samples indicated additional excavation was warranted. As such, two potholes (PH01 and PH02) were advanced within the release extent via a backhoe. Pothole PH01 was advanced within the excavation area near SS08 to a depth of 8 feet bgs. Pothole PH02 was advanced to 1-foot bgs and was located in the vicinity of SS05. Discrete delineation soil samples were collected from PH01 at 6 feet and 8 feet bgs and from PH02 at 1-foot bgs. Soil from the potholes was field screened, handled, and analyzed for the same COCs as described above. Field screening results and observations were logged on lithologic/soil sampling logs, which are included in Appendix B. Both delineation pothole locations are depicted on Figure 2. Photographic documentation was completed during all Site visits and is presented on a Photographic Log included in Appendix C.

On September 17, 2024, in order to further assess the area of investigation, Ensolum personnel collected ten additional delineation soil samples (SS14 through SS23) at a depth of 0.5 feet bgs within and around the area of investigation. The delineation soil samples were handled and analyzed following the same procedures described above.

Laboratory analytical results for delineation soil samples collected at 0.5 feet bgs within the release extent indicated TPH and chloride concentrations exceeded the Closure Criteria. Laboratory analytical results for the terminal depths of PH01 and PH02 indicated that all COCs were compliant with Closure Criteria and successfully defined the vertical extent of impacted soil. Laboratory analytical results for delineation soil samples collected at 0.5 feet bgs within and around the area of investigation in the northwest corner of the pad and surrounding pasture indicated all COCs were compliant with the Closure Criteria and confirmed the absence of impacted soil in that area. All laboratory analytical results are summarized on Table 1 and laboratory analytical reports are included in Appendix D.

## VEGETATION SURVEY ACTIVITIES

On September 13, 2024, Ensolum personnel conducted a vegetation survey utilizing the line-point intercept (LPI) method to assess for the presence or absence of any biological indications of stress to the vegetation in the area of investigation. A staff biologist completed 1 LPI transect within the area of investigation and 1 LPI transect to the north in an undisturbed area. Each transect was 100 feet in length and mapped utilizing a handheld GPS unit as depicted on Figure 3. The staff biologist noted each time vegetation intersected the transect and recorded the length of the vegetation along the transect. The transects were completed along the same slope and direction. The staff biologist also recorded the observed health of the plant. Some stressed vegetation, that was indicative of heat stress and natural conditions, was noted throughout the area of investigation and surrounding pasture area. No indications of stress from the potential overspray were observed.

The LPI transect completed in an undisturbed area to the north, LPI-1, indicated a vegetation coverage of 27 percent (%). The LPI transect LPI-2 was completed in the area of investigation and indicated vegetation coverage of 26%. These observations suggest there have been no significant impacts to the vegetation in the area of investigation. The vegetation survey was conducted over 2 months after the release date, during which time any impacts would have become clearly visible. In addition, all laboratory analytical results for delineation soil samples collected in the area of investigation confirmed the absence of impacted soil in the area. Photographic documentation of the vegetation survey is presented in a Photographic Log provided in Appendix C.

XTO Energy, Inc.  
Remediation Work Plan  
Big Eddy Unit 248H

### PROPOSED REMEDIATION WORK PLAN

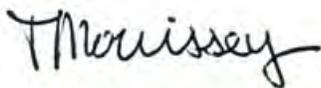
The delineation soil sampling results indicate soil containing elevated TPH and chloride concentrations exists across an approximate 10,700 square foot area in the release extent on pad and extends to depths ranging from 0.5 feet to 8 feet bgs. As such, XTO proposes to complete the following remediation activities:

- Excavation of TPH and chloride impacted soil has begun and will proceed vertically and laterally until sidewall samples confirm all COC concentrations are compliant with the Closure Criteria. The proposed excavation extent is depicted in Figure 4.
- An estimated 1,500 cubic yards of impacted soil will be excavated. The excavated soil will be transferred a New Mexico approved landfill facility for disposal.
- The excavation will be backfilled and recontoured to match pre-existing conditions. Reclamation and reseeding of the on-pad area will occur during pad abandonment.
- The area of investigation will continue to be monitored, and photo documentation of the vegetation will be included in the final *Closure Report*.

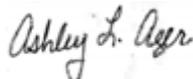
XTO will complete the excavation and soil sampling activities within 90 days of the date of approval of this *Work Plan* by the NMOCD.

If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or [tmorrissey@ensolum.com](mailto:tmorrissey@ensolum.com).

Sincerely,  
**Ensolum, LLC**



Tacoma Morrissey, MS  
Associate Principal



Ashley Ager, PG, MS  
Principal

cc: Colton Brown, XTO  
Kaylan Dirkx, XTO  
New Mexico State Land Office  
Bureau of Land Management

Appendices:

- Figure 1 Site Location Map
- Figure 2 Delineation Soil Sample Locations
- Figure 3 Vegetation Survey Transects
- Figure 4 Proposed Excavation Extent
- Table 1 Soil Sample Analytical Results
- Appendix A Referenced Well Records
- Appendix B Lithologic / Soil Sampling Logs
- Appendix C Photographic Log

XTO Energy, Inc.  
Remediation Work Plan  
Big Eddy Unit 248H

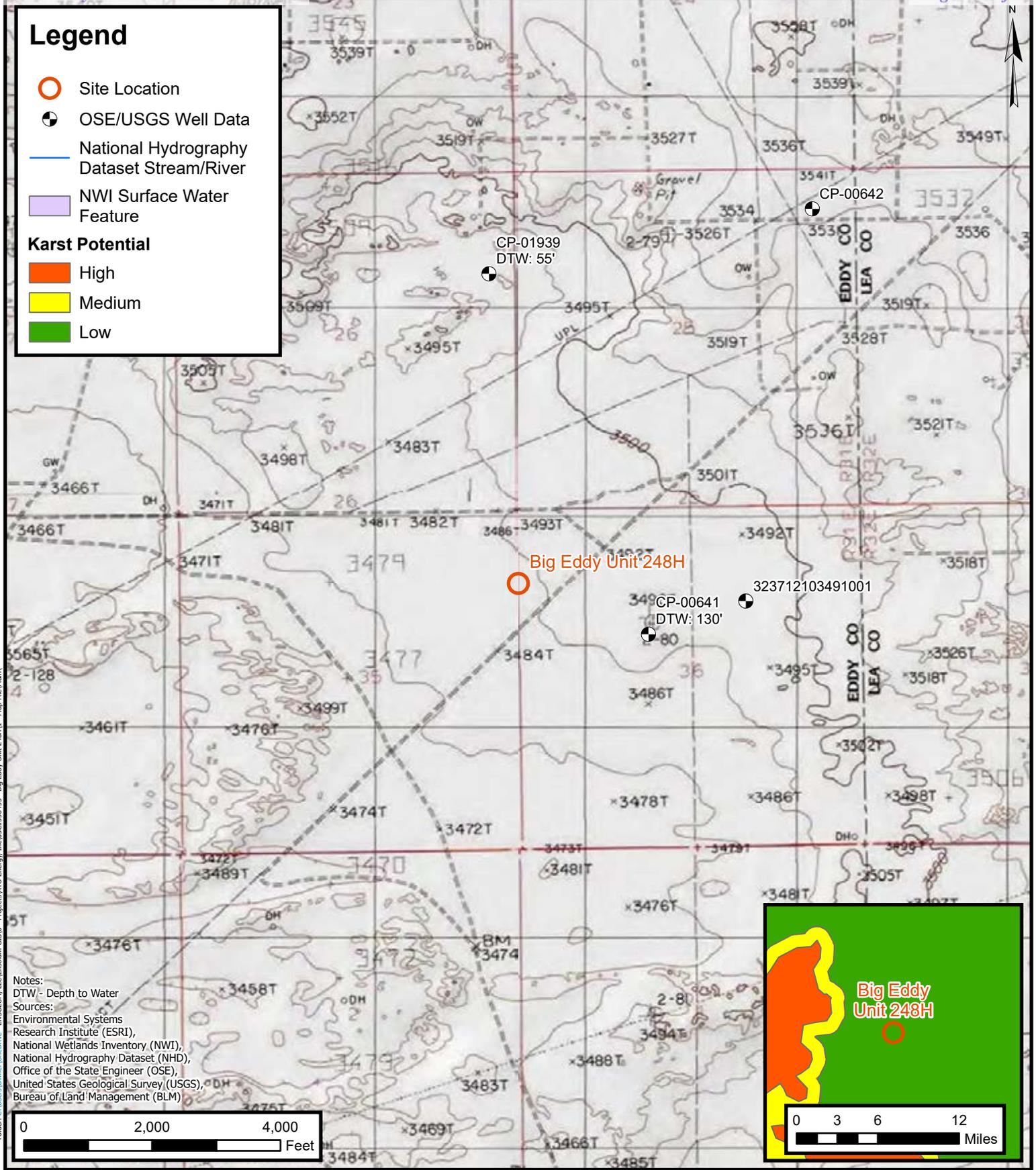
Appendix D Laboratory Analytical Reports & Chain-of-Custody Documentation



FIGURES

# Legend

-  Site Location
-  OSE/USGS Well Data
-  National Hydrography Dataset Stream/River
-  NWI Surface Water Feature
- Karst Potential**
  -  High
  -  Medium
  -  Low



Notes:  
 DTW - Depth to Water  
 Sources:  
 Environmental Systems  
 Research Institute (ESRI),  
 National Wetlands Inventory (NWI),  
 National Hydrography Dataset (NHD),  
 Office of the State Engineer (OSE),  
 United States Geological Survey (USGS),  
 Bureau of Land Management (BLM)

Folder: C:\Users\Owner\OneDrive - ENSOLUM, LLC\OneDrive - ENSOLUM, LLC\Projects\XTO Energy, Inc\03C159453 - Big Eddy Unit 248H\1 - Map File\Main

## Site Receptor Map

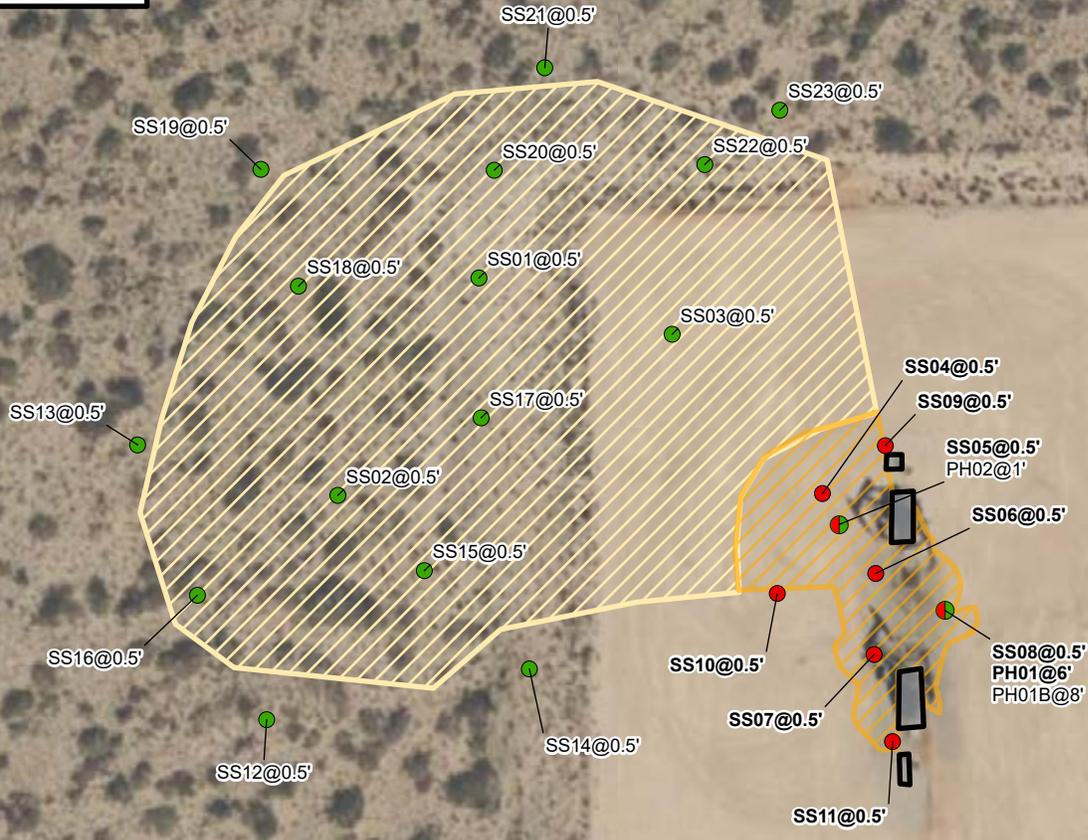
XTO Energy, Inc  
 Big Eddy Unit 248H  
 Incident Number: NAPP2418043567  
 Unit A, Sec 35, T19S, R31E  
 Eddy County, New Mexico

**FIGURE**  
**1**

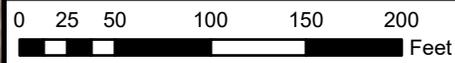


**Legend**

- Delineation Soil Sample in Compliance with Closure Criteria
- Delineation Soil Sample with Concentrations Previously Exceeding Closure Criteria
- Delineation Soil Sample with Concentrations Exceeding Closure Criteria
- Production Equipment
- Release Extent
- Area of Investigation



Notes:  
Sample ID @ Depth Below Ground Surface.



Sources: Environmental Systems Research Institute (ESRI)



# Delineation Soil Sample Locations

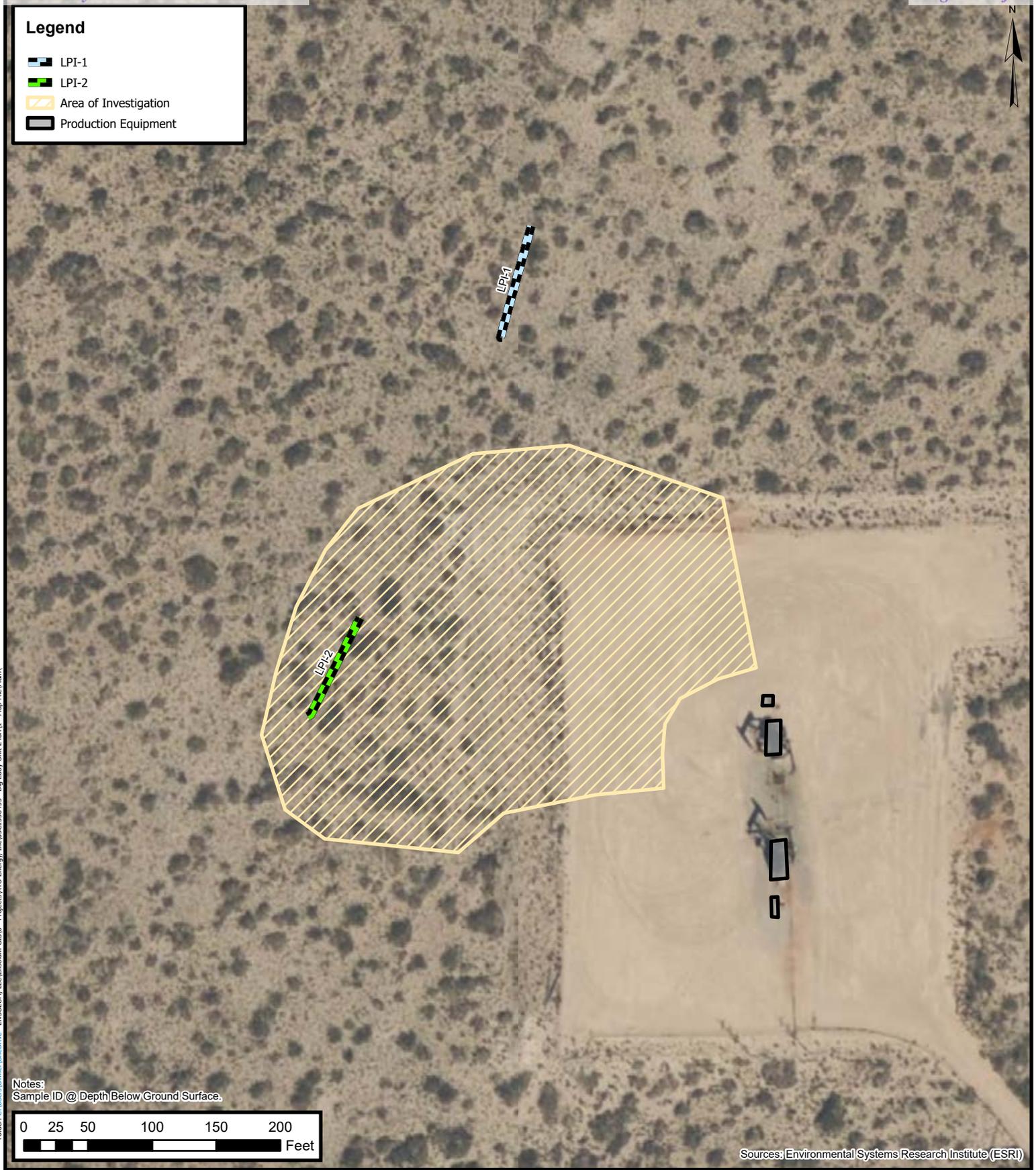
XTO Energy, Inc  
 Big Eddy Unit 248H  
 Incident Number: NAPP2418043567  
 Unit A, Sec 35, T19S, R31E  
 Eddy County, New Mexico

## FIGURE

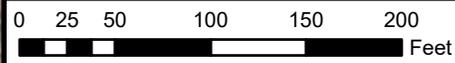
# 2

**Legend**

-  LPI-1
-  LPI-2
-  Area of Investigation
-  Production Equipment



Notes:  
Sample ID @ Depth Below Ground Surface.



Sources: Environmental Systems Research Institute (ESRI)



# Vegetation Survey Transects

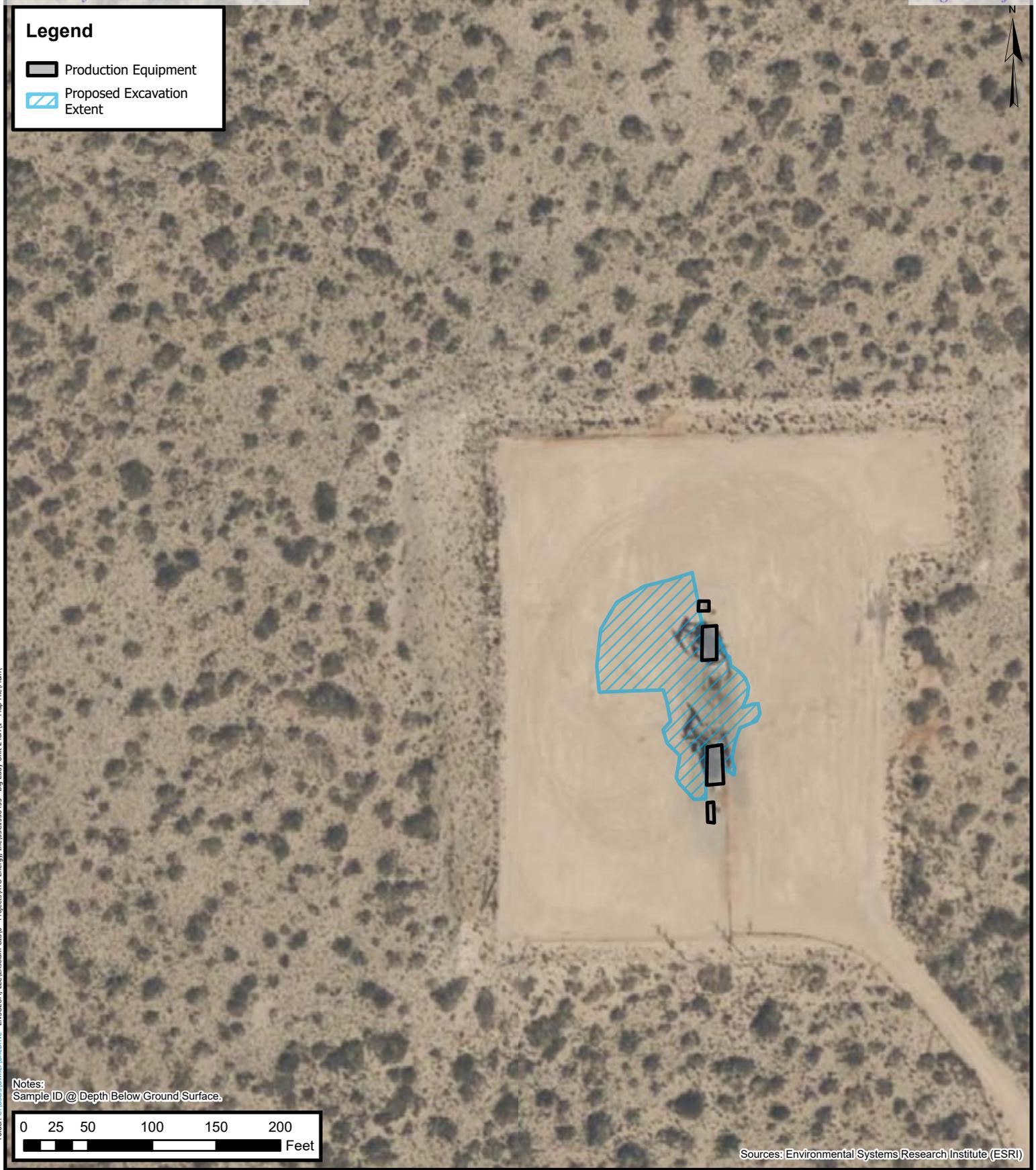
XTO Energy, Inc  
 Big Eddy Unit 248H  
 Incident Number: NAPP2418043567  
 Unit A, Sec 35, T19S, R31E  
 Eddy County, New Mexico

## FIGURE

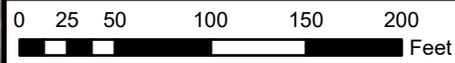
# 3

**Legend**

-  Production Equipment
-  Proposed Excavation Extent



Notes:  
Sample ID @ Depth Below Ground Surface.



Sources: Environmental Systems Research Institute (ESRI)



## Proposed Excavation Extent

XTO Energy, Inc  
 Big Eddy Unit 248H  
 Incident Number: NAPP2418043567  
 Unit A, Sec 35, T19S, R31E  
 Eddy County, New Mexico

## FIGURE

# 4



TABLES



**TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS  
Big Eddy Unit 248H  
XTO Energy, Inc  
Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
<b>Delineation Soil Samples</b>										
SS01	07/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SS02	07/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SS03	07/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	240
SS04	07/29/2024	0.5	<0.050	<0.300	<10.0	182	55.3	182	<b>237</b>	560
SS05	07/29/2024	0.5	<0.050	<0.300	<10.0	1,870	465	1,870	<b>2,335</b>	<b>1,650</b>
PH02	09/09/2024	1	<0.050	<0.300	<10.0	87.4	13.3	87.4	101	192
SS06	07/29/2024	0.5	<0.050	5.16	75.7	2,710	613	2,786	<b>3,399</b>	<b>1,250</b>
SS07	07/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<b>640</b>
SS08	07/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<b>13,600</b>
PH01	09/09/2024	6	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<b>752</b>
PH01B	09/09/2024	8	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SS09	07/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<b>1,060</b>
SS10	07/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<b>1,570</b>
SS11	07/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<b>1,060</b>
SS12	07/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SS13	07/29/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SS14	09/17/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
SS15	09/17/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS16	09/17/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS17	09/17/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS18	09/17/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS19	09/17/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0



**TABLE 1  
SOIL SAMPLE ANALYTICAL RESULTS  
Big Eddy Unit 248H  
XTO Energy, Inc  
Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCD Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>100</b>	<b>600</b>
SS20	09/17/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS21	09/17/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS22	09/17/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS23	09/17/2024	0.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation requirement where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities



## APPENDIX A

### Referenced Well Records

---

STATE ENGINEER OFFICE  
WELL RECORD

SANTA FE

Section 1. GENERAL INFORMATION

(A) Owner of well Phillips Petroleum Owner's Well No. CP-641-Expl.  
Street or Post Office Address P.O. Box 2130  
City and State Hobbs, NM 88240

Well was drilled under Permit No. TEST HOLE FOR EPA and is located in the: <sup>#4</sup> 1600' FNL 1600' FWL

- a. SE NW ¼ of Section 36 Township 19S Range 31E N.M.P.M.
- b. Tract No. \_\_\_\_\_ of Map No. \_\_\_\_\_ of the \_\_\_\_\_
- c. Lot No. \_\_\_\_\_ of Block No. \_\_\_\_\_ of the \_\_\_\_\_  
Subdivision, recorded in Eddy County.
- d. X= \_\_\_\_\_ feet, Y= \_\_\_\_\_ feet, N.M. Coordinate System \_\_\_\_\_ Zone in the \_\_\_\_\_ Grant.

(B) Drilling Contractor Larry's Drilling License No. WD882  
Address 2601 W. Bender Hobbs, NM 88240

Drilling Began 2-11-82 Completed 2-12-82 Type tools trl-cone 0-220'-7 7/8  
220 Size hole 4 3/4

Elevation of land surface or \_\_\_\_\_ at well is \_\_\_\_\_ ft. Total depth of well 300 ft.

Completed well is  shallow  artesian test hole Depth to water upon completion of well 130 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To
<u>5 1/2</u>	<u>160PVC</u>		<u>0</u>	<u>220</u>				

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				

Section 5. PLUGGING RECORD

Plugging Contractor \_\_\_\_\_  
Address \_\_\_\_\_  
Plugging Method \_\_\_\_\_  
Date Well Plugged \_\_\_\_\_  
Plugging approved by: \_\_\_\_\_

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
1			
2			
3			
4			

State Engineer Representative

FOR USE OF STATE ENGINEER ONLY

Date Received February 23, 1982 Quad \_\_\_\_\_ FWL \_\_\_\_\_ FSL \_\_\_\_\_

File No. CP-641-Exploratory Use EXP. Location No. 19.31.36.14114





## APPENDIX B

### Lithologic Soil Sampling Logs

---

		Sample Name: PH01		Date: 9/9/2024				
		Site Name: Big Eddy Unit 248H						
		Incident Number: NAPP2418043567						
		Job Number: 03C1558453						
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>				Logged By: JD		Method: Backhoe		
Coordinates: 32.620931, -103.831294				Hole Diameter: 24"		Total Depth: 8'		
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	12,611	0.0	N	SS08	0.5	0	CCHE	(0-8') CALICHE, tan, fine grained, some sand, well sorted, no odor
						1		
						2		
						3		
						4		Soil excavated to 4' bgs between 9/4/24 and 9/9/2024
						5		
D	929.6	0.0		PH01	6	6		
D	1,495	0.0				7		
D	<162	0.0		PH01A	8	8		
Total Depth @ 8 feet bgs								

					Sample Name: PH02		Date: 9/9/2024	
					Site Name: Big Eddy Unit 248H			
					Incident Number: NAPP2418043567			
					Job Number: 03C1558453			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>					Logged By: JD		Method: Backhoe	
Coordinates: 32.621056, -103.831474					Hole Diameter: 24"		Total Depth: 1'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	1,609	24.8	Y	SS05	0.5	0	CCHE	(0-1') CALICHE, tan, fine grained, some sand, well sorted, odor
D	201.6	0.0	N	PH02	1	1		(@1') no odor
						Total Depth @ 1-foot bgs		



## APPENDIX C

### Photographic Log

---



**Photographic Log**

XTO Energy, Inc  
Big Eddy Unit 248H  
NAPP2418043567



Photograph: 1 Date: 6/21/2024  
Description: Recovery of free standing fluids  
View: Northwest

Photograph: 2 Date: 7/12/2024  
Description: Soil staining in release footprint  
View: Northwest



Photograph: 3 Date: 7/12/2024  
Description: Area of investigation  
View: Southeast

Photograph: 4 Date: 9/9/2024  
Description: Delineation and excavation activities  
View: South



**Photographic Log**

XTO Energy, Inc  
Big Eddy Unit 248H  
NAPP2418043567



Photograph: 5 Date: 9/13/2024  
Description: LPI -1 in undisturbed area  
View: North



Photograph: 6 Date: 9/13/2024  
Description: LPI -2 in area of investigation  
View: Northeast



Photograph: 7 Date: 9/13/2024  
Description: LPI -2 in area of investigation  
View: Southwest



Photograph: 8 Date: 9/17/2024  
Description: View of area of investigation from pad edge  
View: North



## APPENDIX D

### Laboratory Analytical Reports & Chain of Custody Documentation

---



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

August 02, 2024

DAVID MCINNIS

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BIG EDDY UNIT 248H

Enclosed are the results of analyses for samples received by the laboratory on 07/30/24 14:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 01 .5' (H244536-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	1.96	98.2	2.00	5.95	
Toluene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	5.60	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.15	107	2.00	5.41	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.59	110	6.00	5.45	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	07/31/2024	ND	464	116	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	08/01/2024	ND	209	104	200	2.32	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	179	89.4	200	0.570	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 02 .5' (H244536-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	1.96	98.2	2.00	5.95	
Toluene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	5.60	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.15	107	2.00	5.41	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.59	110	6.00	5.45	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	07/31/2024	ND	464	116	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 123 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 03 .5' (H244536-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	1.96	98.2	2.00	5.95	
Toluene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	5.60	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.15	107	2.00	5.41	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.59	110	6.00	5.45	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	07/31/2024	ND	464	116	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 04 .5' (H244536-04)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	1.96	98.2	2.00	5.95	
Toluene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	5.60	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.15	107	2.00	5.41	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.59	110	6.00	5.45	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	07/31/2024	ND	464	116	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	182	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	55.3	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 129 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 05 .5' (H244536-05)**

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	08/01/2024	ND	1.96	98.2	2.00	5.95	
Toluene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	5.60	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.15	107	2.00	5.41	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	6.59	110	6.00	5.45	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1650</b>	16.0	07/31/2024	ND	464	116	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	07/31/2024	ND	187	93.7	200	4.47	
<b>DRO &gt;C10-C28*</b>	<b>1870</b>	10.0	07/31/2024	ND	184	91.9	200	4.69	
<b>EXT DRO &gt;C28-C36</b>	<b>465</b>	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 127 % 48.2-134

Surrogate: 1-Chlorooctadecane 147 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 06 .5' (H244536-06)**

BTEX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	1.96	98.2	2.00	5.95	
<b>Toluene*</b>	<b>0.384</b>	0.050	08/01/2024	ND	2.08	104	2.00	5.60	
<b>Ethylbenzene*</b>	<b>1.52</b>	0.050	08/01/2024	ND	2.15	107	2.00	5.41	
<b>Total Xylenes*</b>	<b>3.26</b>	0.150	08/01/2024	ND	6.59	110	6.00	5.45	
<b>Total BTEX</b>	<b>5.16</b>	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 153 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1250</b>	16.0	07/31/2024	ND	464	116	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>75.7</b>	10.0	07/31/2024	ND	187	93.7	200	4.47	
<b>DRO &gt;C10-C28*</b>	<b>2710</b>	10.0	07/31/2024	ND	184	91.9	200	4.69	
<b>EXT DRO &gt;C28-C36</b>	<b>613</b>	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 131 % 48.2-134

Surrogate: 1-Chlorooctadecane 153 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 07 .5' (H244536-07)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	1.96	98.2	2.00	5.95	
Toluene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	5.60	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.15	107	2.00	5.41	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.59	110	6.00	5.45	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	640	16.0	07/31/2024	ND	464	116	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 08 .5' (H244536-08)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	2.00	100	2.00	8.77	
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.2 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13600	16.0	07/31/2024	ND	464	116	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 93.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.4 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 09 .5' (H244536-09)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	2.00	100	2.00	8.77	
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1060	16.0	08/01/2024	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 75.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.2 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 10 .5' (H244536-10)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	2.00	100	2.00	8.77	
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1570	16.0	08/01/2024	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 83.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.8 % 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.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 11 .5' (H244536-11)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	2.00	100	2.00	8.77	
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1060	16.0	08/01/2024	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 86.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.6 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 12 .5' (H244536-12)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	2.00	100	2.00	8.77	
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/01/2024	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 120 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 13 .5' (H244536-13)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	2.00	100	2.00	8.77	
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.4 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/01/2024	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

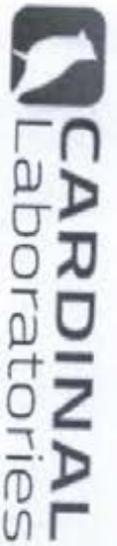
Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

Company Name: Ensolium, LLC  
 Project Manager: David McInnis  
 Address: 3122 National Parks Hwy  
 City: Carlsbad State: NM Zip: 88220  
 Phone #: 409-454-3009 Fax #: Project Owner: XTO  
 Project #: 03C1558453  
 Project Name: Big Eddy Unit 248H  
 Project Location: 32-62087 103, 831415  
 Sampler Name: Jesse Dorman

**BILL TO**  
 P.O. #: Company: XTO Energy Inc.  
 Attn: Amy Ruth  
 Address: 3104 E. Greene St.  
 City: Carlsbad State: NM Zip: 88220  
 Phone #: Fax #:

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:					
H244534	5501	5'										7/29/09	09:35			
	5502												10:50			
	5503												10:55			
	5504												11:00			
	5505												11:05			
	5506												11:30			
	5507												11:35			
	5508												11:40			
	5509												11:45			
	5510												11:45			

**PLEASE NOTE:** Labels and Containers: Containers belong and client retains custody for any other actions unless noted to the contrary by the client to the analyst. All labels including those for signatures and any other marks whatsoever shall be obtained signed unless noted to the contrary by the client to the analyst. It is the client's responsibility to ensure that all labels are legible and contain the correct information. Labels shall be obtained from the client prior to the start of the analysis. Labels shall be obtained from the client prior to the start of the analysis. Labels shall be obtained from the client prior to the start of the analysis.

Relinquished By: [Signature]  
 Date: 7/29/09  
 Received By: [Signature]  
 Date: 7/29/09

Delivered By: (Circle One)  
 Sampler - UPS - Bus - Other: [Circle One]

Turnaround Time: Standard [X] Rush [ ]  
 Bacteria (only) Sample Condition: Cool Intact [ ] Yes [ ] No [ ]  
 Observed Temp. °C: [ ] Yes [ ] No [ ]  
 Corrected Temp. °C: [ ] Yes [ ] No [ ]

Cardinal cannot accept verbal changes. Please email changes to caley.keene@cardinalabnm.com





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

September 17, 2024

DAVID MCINNIS

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BIG EDDY UNIT 248H

Enclosed are the results of analyses for samples received by the laboratory on 09/10/24 13:00.

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 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: BIG EDDY UNIT 248H Project Number: 03C1558453 Project Manager: DAVID MCINNIS Fax To:	Reported: 17-Sep-24 15:23
--	--	------------------------------

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PH 01 6'	H245458-01	Soil	09-Sep-24 11:30	10-Sep-24 13:00
PH 01A 8'	H245458-02	Soil	09-Sep-24 12:05	10-Sep-24 13:00
FS 10 2'	H245458-03	Soil	09-Sep-24 13:50	10-Sep-24 13:00
FS 11 2'	H245458-04	Soil	09-Sep-24 13:55	10-Sep-24 13:00
FS 15 2'	H245458-05	Soil	09-Sep-24 14:10	10-Sep-24 13:00
PH 02 1'	H245458-06	Soil	09-Sep-24 15:10	10-Sep-24 13:00

09/17/24 - Client changed the sample IDs for -01, -02 and -06 (see COC). This is the revised report and will replace the one sent on 09/11/24.

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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: BIG EDDY UNIT 248H Project Number: 03C1558453 Project Manager: DAVID MCINNIS Fax To:	Reported: 17-Sep-24 15:23
--	--	------------------------------

**PH 01 6'**  
**H245458-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>752</b>		16.0	mg/kg	4	4091126	CT	11-Sep-24	4500-Cl-B	
-----------------	------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4091019	JH	10-Sep-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			105 %	71.5-134		4091019	JH	10-Sep-24	8021B	
---------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	

Surrogate: 1-Chlorooctane			97.1 %	48.2-134		4091016	MS	10-Sep-24	8015B	
---------------------------	--	--	--------	----------	--	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			115 %	49.1-148		4091016	MS	10-Sep-24	8015B	
-------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: BIG EDDY UNIT 248H Project Number: 03C1558453 Project Manager: DAVID MCINNIS Fax To:	Reported: 17-Sep-24 15:23
--	--	------------------------------

**PH 01A 8'  
H245458-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	48.0		16.0	mg/kg	4	4091126	CT	11-Sep-24	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4091019	JH	10-Sep-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			106 %	71.5-134		4091019	JH	10-Sep-24	8021B	
---------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	

Surrogate: 1-Chlorooctane			97.7 %	48.2-134		4091016	MS	10-Sep-24	8015B	
---------------------------	--	--	--------	----------	--	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			115 %	49.1-148		4091016	MS	10-Sep-24	8015B	
-------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: BIG EDDY UNIT 248H Project Number: 03C1558453 Project Manager: DAVID MCINNIS Fax To:	Reported: 17-Sep-24 15:23
--	--	------------------------------

**FS 10 2'**  
**H245458-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>80.0</b>		16.0	mg/kg	4	4091126	CT	11-Sep-24	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4091019	JH	10-Sep-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	71.5-134		4091019	JH	10-Sep-24	8021B	
--	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			100 %	48.2-134		4091016	MS	10-Sep-24	8015B	
----------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			120 %	49.1-148		4091016	MS	10-Sep-24	8015B	
--------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: BIG EDDY UNIT 248H Project Number: 03C1558453 Project Manager: DAVID MCINNIS Fax To:	Reported: 17-Sep-24 15:23
--	--	------------------------------

**FS 11 2'  
H245458-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>144</b>		16.0	mg/kg	4	4091126	CT	11-Sep-24	4500-Cl-B	
-----------------	------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4091019	JH	10-Sep-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			105 %	71.5-134		4091019	JH	10-Sep-24	8021B	
--	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			96.4 %	48.2-134		4091016	MS	10-Sep-24	8015B	
----------------------------------	--	--	--------	----------	--	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			111 %	49.1-148		4091016	MS	10-Sep-24	8015B	
--------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: BIG EDDY UNIT 248H Project Number: 03C1558453 Project Manager: DAVID MCINNIS Fax To:	Reported: 17-Sep-24 15:23
--	--	------------------------------

**FS 15 2'**  
**H245458-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>144</b>		16.0	mg/kg	4	4091126	CT	11-Sep-24	4500-Cl-B	
-----------------	------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4091019	JH	10-Sep-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			107 %	71.5-134		4091019	JH	10-Sep-24	8021B	
--	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			97.8 %	48.2-134		4091016	MS	10-Sep-24	8015B	
----------------------------------	--	--	--------	----------	--	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			113 %	49.1-148		4091016	MS	10-Sep-24	8015B	
--------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: BIG EDDY UNIT 248H Project Number: 03C1558453 Project Manager: DAVID MCINNIS Fax To:	Reported: 17-Sep-24 15:23
--	--	------------------------------

**PH 02 1'**  
**H245458-06 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>192</b>		16.0	mg/kg	4	4091126	CT	11-Sep-24	4500-Cl-B	
-----------------	------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4091019	JH	10-Sep-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			107 %	71.5-134		4091019	JH	10-Sep-24	8021B	
---------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
<b>DRO &gt;C10-C28*</b>	<b>87.4</b>		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>13.3</b>		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	

Surrogate: 1-Chlorooctane			94.3 %	48.2-134		4091016	MS	10-Sep-24	8015B	
---------------------------	--	--	--------	----------	--	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			111 %	49.1-148		4091016	MS	10-Sep-24	8015B	
-------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: BIG EDDY UNIT 248H Project Number: 03C1558453 Project Manager: DAVID MCINNIS Fax To:	Reported: 17-Sep-24 15:23
--	--	------------------------------

**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 4091126 - 1:4 DI Water</b>										
<b>Blank (4091126-BLK1)</b>										
Prepared & Analyzed: 11-Sep-24										
Chloride	ND	16.0	mg/kg							
<b>LCS (4091126-BS1)</b>										
Prepared & Analyzed: 11-Sep-24										
Chloride	400	16.0	mg/kg	400		100	80-120			
<b>LCS Dup (4091126-BSD1)</b>										
Prepared & Analyzed: 11-Sep-24										
Chloride	416	16.0	mg/kg	400		104	80-120	3.92	20	

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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: BIG EDDY UNIT 248H Project Number: 03C1558453 Project Manager: DAVID MCINNIS Fax To:	Reported: 17-Sep-24 15:23
--	--	------------------------------

**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
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 4091019 - Volatiles**

**Blank (4091019-BLK1)**

Prepared & Analyzed: 10-Sep-24

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)	0.0517		mg/kg	0.0500		103	71.5-134			

**LCS (4091019-BS1)**

Prepared & Analyzed: 10-Sep-24

Benzene	2.05	0.050	mg/kg	2.00		102	82.8-130			
Toluene	2.08	0.050	mg/kg	2.00		104	86-128			
Ethylbenzene	2.07	0.050	mg/kg	2.00		103	85.9-128			
m,p-Xylene	4.42	0.100	mg/kg	4.00		110	89-129			
o-Xylene	2.11	0.050	mg/kg	2.00		105	86.1-125			
Total Xylenes	6.52	0.150	mg/kg	6.00		109	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	0.0501		mg/kg	0.0500		100	71.5-134			

**LCS Dup (4091019-BSD1)**

Prepared & Analyzed: 10-Sep-24

Benzene	1.81	0.050	mg/kg	2.00		90.3	82.8-130	12.5	15.8	
Toluene	1.84	0.050	mg/kg	2.00		92.0	86-128	12.4	15.9	
Ethylbenzene	1.82	0.050	mg/kg	2.00		90.9	85.9-128	12.9	16	
m,p-Xylene	3.91	0.100	mg/kg	4.00		97.7	89-129	12.2	16.2	
o-Xylene	1.85	0.050	mg/kg	2.00		92.5	86.1-125	12.9	16.7	
Total Xylenes	5.76	0.150	mg/kg	6.00		96.0	88.2-128	12.4	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0504		mg/kg	0.0500		101	71.5-134			

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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: BIG EDDY UNIT 248H Project Number: 03C1558453 Project Manager: DAVID MCINNIS Fax To:	Reported: 17-Sep-24 15:23
--	--	------------------------------

**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
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 4091016 - General Prep - Organics**

<b>Blank (4091016-BLK1)</b>		Prepared & Analyzed: 10-Sep-24								
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	46.2		mg/kg	50.0		92.5	48.2-134			
Surrogate: 1-Chlorooctadecane	53.1		mg/kg	50.0		106	49.1-148			

<b>LCS (4091016-BS1)</b>		Prepared & Analyzed: 10-Sep-24								
GRO C6-C10	204	10.0	mg/kg	200		102	66.4-123			
DRO >C10-C28	199	10.0	mg/kg	200		99.4	66.5-118			
Total TPH C6-C28	403	10.0	mg/kg	400		101	77.6-123			
Surrogate: 1-Chlorooctane	51.1		mg/kg	50.0		102	48.2-134			
Surrogate: 1-Chlorooctadecane	55.0		mg/kg	50.0		110	49.1-148			

<b>LCS Dup (4091016-BSD1)</b>		Prepared & Analyzed: 10-Sep-24								
GRO C6-C10	210	10.0	mg/kg	200		105	66.4-123	3.00	17.7	
DRO >C10-C28	209	10.0	mg/kg	200		104	66.5-118	4.92	21	
Total TPH C6-C28	419	10.0	mg/kg	400		105	77.6-123	3.95	18.5	
Surrogate: 1-Chlorooctane	54.7		mg/kg	50.0		109	48.2-134			
Surrogate: 1-Chlorooctadecane	58.9		mg/kg	50.0		118	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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Notes and Definitions**

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

\*=Accredited Analyte

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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

**Company Name:** Ensolum, LLC  
**Project Manager:** David McInnis  
**Address:** 3122 National Parks Hwy  
**City:** Carlsbad  
**Phone #:** 409-454-3009  
**Project #:** 03C1558453  
**Project Name:** Big Eddy Unit 248H  
**Project Location:** 32.62087, -103.83145  
**Sampler Name:** Jesse Dorman

**BILL TO**  
**P.O. #:**  
**Company:** XTO Energy Inc.  
**Attn:** Amy Ruth  
**Address:** 3104 E. Green St.  
**City:** Carlsbad  
**State:** NM **Zip:** 88220

**ANALYSIS REQUEST**

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					
#45458	Phase 1 Phase 1A	6'	G	1								9/9/24	1130			
	F510	8'	G	1									1205			
	F511	2'	C	1									1350			
	F515	2'	C	1									1355			
	Phase 2	2'	C	1									1410			
	SD	11'	G	1									1510			

**REMARKS:** \*Customer requested ID changes. to 9/17/24.

**Relinquished By:** [Signature]  
**Received By:** [Signature]  
**Date:** 9/10/24  
**Time:** 1300

**Delivered By:** (Circle One)  
 Sampler - UPS - Bus - Other: [X] UPS

**Verbal Result:**  Yes  No **ADD'l Phone #:**  
**REMARKS:** All Results are emailed. Please provide Email address:  
 DMcInnis@ensolum.com TMcInnis@ensolum.com  
 Card Center: 1140201007  
 Incident ID: N4PP2418043567

**Sample Condition:** Cool Intact  Yes  No  
**Checked By:** [Signature]  
**Turnaround Time:** Standard Rush  
**Bacteria (only) Sample Condition:** Cool Intact  Yes  No  
**Corrected Temp. °C:**

† Cardinal cannot accept verbal changes. Please email changes to celej.keene@cardinallabsnm.com



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

September 18, 2024

DAVID MCINNIS

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BIG EDDY UNIT 248H

Enclosed are the results of analyses for samples received by the laboratory on 09/17/24 14:11.

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.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	09/17/2024	Sampling Date:	09/17/2024
Reported:	09/18/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 14 .5' (H245642-01)**

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	09/17/2024	ND	2.11	105	2.00	6.21	
Toluene*	<0.050	0.050	09/17/2024	ND	2.13	107	2.00	6.10	
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.12	106	2.00	6.29	
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.53	109	6.00	6.13	
Total BTEX	<0.300	0.300	09/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/18/2024	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	09/17/2024	ND	201	101	200	2.40	
DRO >C10-C28*	<10.0	10.0	09/17/2024	ND	203	102	200	1.95	
EXT DRO >C28-C36	<10.0	10.0	09/17/2024	ND					

Surrogate: 1-Chlorooctane 117 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 09/17/2024  
 Reported: 09/18/2024  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62087 -103.83145

Sampling Date: 09/17/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SS 15 .5' (H245642-02)**

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	09/17/2024	ND	2.11	105	2.00	6.21		
Toluene*	<0.050	0.050	09/17/2024	ND	2.13	107	2.00	6.10		
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.12	106	2.00	6.29		
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.53	109	6.00	6.13		
Total BTEX	<0.300	0.300	09/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/18/2024	ND	416	104	400	7.41		

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	09/17/2024	ND	201	101	200	2.40		
DRO >C10-C28*	<10.0	10.0	09/17/2024	ND	203	102	200	1.95		
EXT DRO >C28-C36	<10.0	10.0	09/17/2024	ND						

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 09/17/2024  
 Reported: 09/18/2024  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62087 -103.83145

Sampling Date: 09/17/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SS 16 .5' (H245642-03)**

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	09/17/2024	ND	2.11	105	2.00	6.21	
Toluene*	<0.050	0.050	09/17/2024	ND	2.13	107	2.00	6.10	
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.12	106	2.00	6.29	
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.53	109	6.00	6.13	
Total BTEX	<0.300	0.300	09/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/18/2024	ND	416	104	400	7.41	

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	09/17/2024	ND	201	101	200	2.40	
DRO >C10-C28*	<10.0	10.0	09/17/2024	ND	203	102	200	1.95	
EXT DRO >C28-C36	<10.0	10.0	09/17/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 09/17/2024  
 Reported: 09/18/2024  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62087 -103.83145

Sampling Date: 09/17/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SS 17 .5' (H245642-04)**

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	09/17/2024	ND	2.11	105	2.00	6.21		
Toluene*	<0.050	0.050	09/17/2024	ND	2.13	107	2.00	6.10		
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.12	106	2.00	6.29		
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.53	109	6.00	6.13		
Total BTEX	<0.300	0.300	09/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/18/2024	ND	416	104	400	7.41		

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	09/17/2024	ND	201	101	200	2.40		
DRO >C10-C28*	<10.0	10.0	09/17/2024	ND	203	102	200	1.95		
EXT DRO >C28-C36	<10.0	10.0	09/17/2024	ND						

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 09/17/2024  
 Reported: 09/18/2024  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62087 -103.83145

Sampling Date: 09/17/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SS 18 .5' (H245642-05)**

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	09/17/2024	ND	2.11	105	2.00	6.21	
Toluene*	<0.050	0.050	09/17/2024	ND	2.13	107	2.00	6.10	
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.12	106	2.00	6.29	
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.53	109	6.00	6.13	
Total BTEX	<0.300	0.300	09/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/18/2024	ND	416	104	400	7.41	

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	09/17/2024	ND	201	101	200	2.40	
DRO >C10-C28*	<10.0	10.0	09/17/2024	ND	203	102	200	1.95	
EXT DRO >C28-C36	<10.0	10.0	09/17/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 09/17/2024  
 Reported: 09/18/2024  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62087 -103.83145

Sampling Date: 09/17/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SS 19 .5' (H245642-06)**

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	09/17/2024	ND	2.11	105	2.00	6.21		
Toluene*	<0.050	0.050	09/17/2024	ND	2.13	107	2.00	6.10		
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.12	106	2.00	6.29		
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.53	109	6.00	6.13		
Total BTEX	<0.300	0.300	09/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/18/2024	ND	416	104	400	7.41		

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	09/17/2024	ND	201	101	200	2.40		
DRO >C10-C28*	<10.0	10.0	09/17/2024	ND	203	102	200	1.95		
EXT DRO >C28-C36	<10.0	10.0	09/17/2024	ND						

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 09/17/2024  
 Reported: 09/18/2024  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62087 -103.83145

Sampling Date: 09/17/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SS 20 .5' (H245642-07)**

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	09/17/2024	ND	2.11	105	2.00	6.21		
Toluene*	<0.050	0.050	09/17/2024	ND	2.13	107	2.00	6.10		
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.12	106	2.00	6.29		
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.53	109	6.00	6.13		
Total BTEX	<0.300	0.300	09/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/18/2024	ND	416	104	400	7.41		

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	09/17/2024	ND	201	101	200	2.40		
DRO >C10-C28*	<10.0	10.0	09/17/2024	ND	203	102	200	1.95		
EXT DRO >C28-C36	<10.0	10.0	09/17/2024	ND						

Surrogate: 1-Chlorooctane 99.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 09/17/2024  
 Reported: 09/18/2024  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62087 -103.83145

Sampling Date: 09/17/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SS 21 .5' (H245642-08)**

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	09/17/2024	ND	2.11	105	2.00	6.21		
Toluene*	<0.050	0.050	09/17/2024	ND	2.13	107	2.00	6.10		
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.12	106	2.00	6.29		
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.53	109	6.00	6.13		
Total BTEX	<0.300	0.300	09/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/18/2024	ND	416	104	400	7.41		

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	09/17/2024	ND	201	101	200	2.40		
DRO >C10-C28*	<10.0	10.0	09/17/2024	ND	203	102	200	1.95		
EXT DRO >C28-C36	<10.0	10.0	09/17/2024	ND						

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 09/17/2024  
 Reported: 09/18/2024  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62087 -103.83145

Sampling Date: 09/17/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SS 22 .5' (H245642-09)**

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	09/17/2024	ND	2.11	105	2.00	6.21		
Toluene*	<0.050	0.050	09/17/2024	ND	2.13	107	2.00	6.10		
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.12	106	2.00	6.29		
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.53	109	6.00	6.13		
Total BTEX	<0.300	0.300	09/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/18/2024	ND	416	104	400	7.41		

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	09/18/2024	ND	201	101	200	2.40		
DRO >C10-C28*	<10.0	10.0	09/18/2024	ND	203	102	200	1.95		
EXT DRO >C28-C36	<10.0	10.0	09/18/2024	ND						

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 09/17/2024  
 Reported: 09/18/2024  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62087 -103.83145

Sampling Date: 09/17/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SS 23 .5' (H245642-10)**

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	09/17/2024	ND	2.11	105	2.00	6.21	
Toluene*	<0.050	0.050	09/17/2024	ND	2.13	107	2.00	6.10	
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.12	106	2.00	6.29	
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.53	109	6.00	6.13	
Total BTEX	<0.300	0.300	09/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/18/2024	ND	416	104	400	7.41	

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	09/18/2024	ND	201	101	200	2.40	
DRO >C10-C28*	<10.0	10.0	09/18/2024	ND	203	102	200	1.95	
EXT DRO >C28-C36	<10.0	10.0	09/18/2024	ND					

Surrogate: 1-Chlorooctane 116 % 48.2-134

Surrogate: 1-Chlorooctadecane 124 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Notes and Definitions**

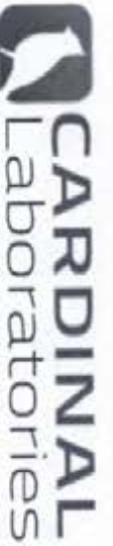
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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: Ensolium, LLC  
 Project Manager: David McInnis  
 Address: 3122 National Parks Hwy  
 City: Carlsbad State: NM Zip: 88220  
 Phone #: 409-454-3009 Fax #:   
 Project #: 03C1558453 Project Owner: XTO  
 Project Name: Big Eddy Unit 248H  
 Project Location: 32.62087, -103.83145  
 Sampler Name: Jesse Dorman  
 P.O. #:   
 Company: XTO Energy Inc.  
 Attn: Amy Ruth  
 Address: 3104 E. Green St.  
 City: Carlsbad  
 State: NM Zip: 88220  
 Phone #:   
 Fax #:

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:					
HAUSCMB	5514	5'	G	1								9/17/21	1130			
	5515	5'	G	1									1133			
	5516	5'	G	1									1135			
	5517	5'	G	1									1136			
	5518	5'	G	1									1141			
	5519	5'	G	1									1144			
	5520	5'	G	1									1152			
	5521	5'	G	1									1153			
	5522	5'	G	1									1154			
	5523	5'	G	1									1154			

PLEASE NOTE: Lastly and Overpack. Container labels and cover caps remain sealed for any other agency whether issued a contract or not, shall be sealed to the amount paid by the client for the analysis. All items, including those for negligence and any other claims whatsoever shall be deemed sealed unless made to verify and sealed 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 interruption, loss of data, 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. Inspection of whether such claims to have been paid by the client shall be subject to arbitration.

Relinquished By: *[Signature]* Date: 9/17/21  
 Received By: *[Signature]* Date: 9/17/21  
 Time:   
 Turnaround Time:   
 Thermo ID #115  
 Corrected Temp. °C: 0.92  
 Sample Condition: Cool Intact  Yes  No  
 Checked By: *[Signature]*  
 Remarks: Cool Center: 1140201001 Incident ID: NAPP2418043567  
 All Results are emailed. Please provide Email address: *[Email]*  
 Dmchins@ensolium.com Thorrisey@ensolium.com Minomason@ensolium.com

Delivered By: (Circle One)  UPS  Bus  Other:   
 Corrected Temp. °C: 0.92  
 Sample Condition: Cool Intact  Yes  No  
 Checked By: *[Signature]*  
 Turnaround Time:   
 Thermo ID #115  
 Corrected Temp. °C: 0.92  
 Sample Condition: Cool Intact  Yes  No  
 Checked By: *[Signature]*  
 Remarks: Cool Center: 1140201001 Incident ID: NAPP2418043567  
 All Results are emailed. Please provide Email address: *[Email]*  
 Dmchins@ensolium.com Thorrisey@ensolium.com Minomason@ensolium.com



## APPENDIX D

### Laboratory Analytical Reports & Chain of Custody Documentation

---



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

August 02, 2024

DAVID MCINNIS

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BIG EDDY UNIT 248H

Enclosed are the results of analyses for samples received by the laboratory on 07/30/24 14:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 01 .5' (H244536-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	1.96	98.2	2.00	5.95	
Toluene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	5.60	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.15	107	2.00	5.41	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.59	110	6.00	5.45	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	07/31/2024	ND	464	116	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	08/01/2024	ND	209	104	200	2.32	
DRO >C10-C28*	<10.0	10.0	08/01/2024	ND	179	89.4	200	0.570	
EXT DRO >C28-C36	<10.0	10.0	08/01/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 02 .5' (H244536-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	1.96	98.2	2.00	5.95	
Toluene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	5.60	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.15	107	2.00	5.41	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.59	110	6.00	5.45	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	07/31/2024	ND	464	116	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 123 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 03 .5' (H244536-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	1.96	98.2	2.00	5.95	
Toluene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	5.60	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.15	107	2.00	5.41	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.59	110	6.00	5.45	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	07/31/2024	ND	464	116	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 04 .5' (H244536-04)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	1.96	98.2	2.00	5.95	
Toluene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	5.60	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.15	107	2.00	5.41	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.59	110	6.00	5.45	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	07/31/2024	ND	464	116	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	182	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	55.3	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 129 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 05 .5' (H244536-05)**

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	08/01/2024	ND	1.96	98.2	2.00	5.95	
Toluene*	<0.050	0.050	08/01/2024	ND	2.08	104	2.00	5.60	
Ethylbenzene*	<0.050	0.050	08/01/2024	ND	2.15	107	2.00	5.41	
Total Xylenes*	<0.150	0.150	08/01/2024	ND	6.59	110	6.00	5.45	
Total BTEX	<0.300	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1650</b>	16.0	07/31/2024	ND	464	116	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	07/31/2024	ND	187	93.7	200	4.47	
<b>DRO &gt;C10-C28*</b>	<b>1870</b>	10.0	07/31/2024	ND	184	91.9	200	4.69	
<b>EXT DRO &gt;C28-C36</b>	<b>465</b>	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 127 % 48.2-134

Surrogate: 1-Chlorooctadecane 147 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 06 .5' (H244536-06)**

BTEX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2024	ND	1.96	98.2	2.00	5.95	
<b>Toluene*</b>	<b>0.384</b>	0.050	08/01/2024	ND	2.08	104	2.00	5.60	
<b>Ethylbenzene*</b>	<b>1.52</b>	0.050	08/01/2024	ND	2.15	107	2.00	5.41	
<b>Total Xylenes*</b>	<b>3.26</b>	0.150	08/01/2024	ND	6.59	110	6.00	5.45	
<b>Total BTEX</b>	<b>5.16</b>	0.300	08/01/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 153 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1250</b>	16.0	07/31/2024	ND	464	116	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>75.7</b>	10.0	07/31/2024	ND	187	93.7	200	4.47	
<b>DRO &gt;C10-C28*</b>	<b>2710</b>	10.0	07/31/2024	ND	184	91.9	200	4.69	
<b>EXT DRO &gt;C28-C36</b>	<b>613</b>	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 131 % 48.2-134

Surrogate: 1-Chlorooctadecane 153 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 07 .5' (H244536-07)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	1.96	98.2	2.00	5.95	
Toluene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	5.60	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.15	107	2.00	5.41	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.59	110	6.00	5.45	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	640	16.0	07/31/2024	ND	464	116	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 08 .5' (H244536-08)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	2.00	100	2.00	8.77	
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.2 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13600	16.0	07/31/2024	ND	464	116	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 93.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.4 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 09 .5' (H244536-09)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	2.00	100	2.00	8.77	
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1060	16.0	08/01/2024	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 75.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.2 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 10 .5' (H244536-10)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	2.00	100	2.00	8.77	
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1570	16.0	08/01/2024	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 83.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.8 % 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.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 11 .5' (H244536-11)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	2.00	100	2.00	8.77	
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1060	16.0	08/01/2024	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 86.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.6 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 12 .5' (H244536-12)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	2.00	100	2.00	8.77	
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/01/2024	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 120 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	07/30/2024	Sampling Date:	07/29/2024
Reported:	08/02/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 13 .5' (H244536-13)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/31/2024	ND	2.00	100	2.00	8.77	
Toluene*	<0.050	0.050	07/31/2024	ND	1.97	98.4	2.00	9.42	
Ethylbenzene*	<0.050	0.050	07/31/2024	ND	2.08	104	2.00	9.88	
Total Xylenes*	<0.150	0.150	07/31/2024	ND	6.11	102	6.00	9.73	
Total BTEX	<0.300	0.300	07/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.4 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/01/2024	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	07/31/2024	ND	187	93.7	200	4.47	
DRO >C10-C28*	<10.0	10.0	07/31/2024	ND	184	91.9	200	4.69	
EXT DRO >C28-C36	<10.0	10.0	07/31/2024	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

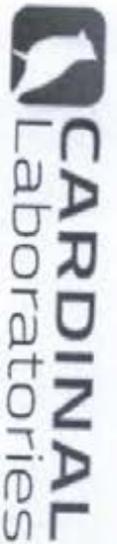
Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240  
 (575) 393-2326 FAX (575) 393-2476

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

**Company Name:** Ensolum, LLC  
**Project Manager:** David McInnis  
**Address:** 3122 National Parks Hwy  
**City:** Carlsbad  
**State:** NM **Zip:** 88220  
**Phone #:** 409-454-3009  
**Fax #:** 409-454-3009  
**Project #:** 03C1558453  
**Project Owner:** XTO  
**Project Name:** Big Eddy Unit 248H  
**Project Location:** 32-62087 103, 831415  
**Sampler Name:** Jesse Dorman

**BILL TO**  
**P.O. #:**  
**Company:** XTO Energy Inc.  
**Attn:** Amy Ruth  
**Address:** 3104 E. Greene St.  
**City:** Carlsbad  
**State:** NM **Zip:** 88220  
**Phone #:**  
**Fax #:**

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 :					
1244534	5501	5'									7/29/09	09:55			
2	5502											10:50			
3	5503											10:55			
4	5504											11:00			
5	5505											11:05			
6	5506											11:30			
7	5507											11:35			
8	5508											11:40			
9	5509											11:45			
10	5510											11:45			

**PLATE NOTE:** Lately and Ompags. Cardrath body and cover enclosure heavily for any other action whether found in contact or not used to the amount paid by the client for the analysis. All data including those for negative and any other cases whatsoever shall be deemed valid unless noted in writing and received by Cardinal within 30 days after completion of the analysis. It is the client's obligation to provide the labels for individual or composite samples, including without limitation, business name, phone, fax or e-mail, or name of party received by client, its subsidiaries, affiliates or successors, and to be retained by the recipient of analysis. Samples to be analyzed by Cardinal require the presence of either such data is listed upon any of the above noted instances at analysis.

**Relinquished By:** [Signature] **Date:** 7-30-24 **Time:** 10:25  
**Received By:** [Signature] **Date:** 7-25 **Time:** 10:25

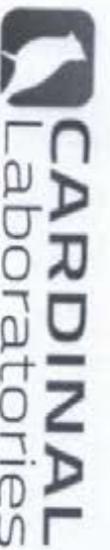
**Delivered By:** (Circle One)  Driver  UPS  Bus  Other:  **Temperature:** 1.4°C **Sample Condition:** Cool  Intact  Yes  No  **Checked By:** [Signature]

**Remarks:** Cost Center: 1140201001 Incident ID: nAPP2418043967

**Verbal Result:**  Yes  No **Add'l Phone #:**  
**All Results are emailed. Please provide Email address:**  
 dbell@ensolum.com, TMorrissey@ensolum.com, dmclint@ensolum.com

**Turnaround Time:** Standard  Rush  **Bacteria (only) Sample Condition:** Cool  Intact  Yes  No  **Observed Temp. °C:**  Yes  No **Corrected Temp. °C:**  Yes  No

Cardinal cannot accept verbal changes. Please email changes to caley.keene@cardinalabnm.com



101 East Marland, Hobbs, NM 88240  
 (575) 393-2326 FAX (575) 393-2476

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

Company Name: Enselum, LLC		P.O. #:		ANALYSIS REQUEST	
Project Manager: David McInnis		Company: XTO Energy Inc.			
Address: 3122 National Parks Hwy		Attn: Amy Ruth			
City: Carlsbad	State: NM	Zip: 88220			
Phone #: 409-454-3009	Fax #:				
Project #: 03C1558453	Project Owner: XTO				
Project Name: Big Eddy Unit 248H	City: Carlsbad				
Project Location:	State: NM	Zip: 88220			
Sampler Name: Jesse Dorman	Phone #:				
FOR LAB USE ONLY		PRESERV		SAMPLING	
Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)GRAB OR (C)OMP	# CONTAINERS	MATRIX
H044534	5511	5'	↓	1	GROUNDWATER
1/3	5512	↓	↓	1	WASTEWATER
	5513	↓	↓	1	SOIL
					OIL
					SLUDGE
					OTHER:
					ACID/BASE:
					ICE / COOL
					OTHER:
					DATE
					TIME
					BTEX
					TPH
					CHLORIDE

PLEASE NOTE: Ladders and Containers: Cardinal's ladders and containers are provided for your use only. They are not to be used for any other purpose. All containers must be returned to Cardinal within 30 days after completion of the applicable analysis. All containers including those for impurities and any other container which are returned without labels or labels which do not match the label on the container will be considered as contaminated. Business transactions, lease of use, or lease of profit incurred by others, its subsidiaries, affiliates or successors including but not limited to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated services or otherwise.

Relinquished By: *[Signature]* Date: 1-30-24  
 Received By: *[Signature]* Date: 1-25-25

Delivered By: (Circle One)  UPS  Bus  Other:  Temperature: 14.4°C Sample Condition: Cool  Intact  Bacteria (only)  Sample Condition:  Observed Temp. °C:  Corrected Temp. °C:

REMARKS: Cost Center: 1540201001 Incident ID: NAPP2418043567

Verbal Result:  Yes  No Add'l Phone #:   
 All Results are emailed. Please provide Email address: [bhelli@enselum.com](mailto:bhelli@enselum.com), [Thomrissy@enselum.com](mailto:Thomrissy@enselum.com), [dmdmih@enselum.com](mailto:dmdmih@enselum.com)

† Cardinal cannot accept verbal changes. Please email changes to [celey.keene@cardinallabsnm.com](mailto:celey.keene@cardinallabsnm.com)



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

September 17, 2024

DAVID MCINNIS

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BIG EDDY UNIT 248H

Enclosed are the results of analyses for samples received by the laboratory on 09/10/24 13:00.

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 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: BIG EDDY UNIT 248H Project Number: 03C1558453 Project Manager: DAVID MCINNIS Fax To:	Reported: 17-Sep-24 15:23
--	--	------------------------------

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PH 01 6'	H245458-01	Soil	09-Sep-24 11:30	10-Sep-24 13:00
PH 01A 8'	H245458-02	Soil	09-Sep-24 12:05	10-Sep-24 13:00
FS 10 2'	H245458-03	Soil	09-Sep-24 13:50	10-Sep-24 13:00
FS 11 2'	H245458-04	Soil	09-Sep-24 13:55	10-Sep-24 13:00
FS 15 2'	H245458-05	Soil	09-Sep-24 14:10	10-Sep-24 13:00
PH 02 1'	H245458-06	Soil	09-Sep-24 15:10	10-Sep-24 13:00

09/17/24 - Client changed the sample IDs for -01, -02 and -06 (see COC). This is the revised report and will replace the one sent on 09/11/24.

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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: BIG EDDY UNIT 248H Project Number: 03C1558453 Project Manager: DAVID MCINNIS Fax To:	Reported: 17-Sep-24 15:23
--	--	------------------------------

**PH 01 6'**  
**H245458-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>752</b>		16.0	mg/kg	4	4091126	CT	11-Sep-24	4500-Cl-B	
-----------------	------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4091019	JH	10-Sep-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			105 %	71.5-134		4091019	JH	10-Sep-24	8021B	
---------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	

Surrogate: 1-Chlorooctane			97.1 %	48.2-134		4091016	MS	10-Sep-24	8015B	
---------------------------	--	--	--------	----------	--	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			115 %	49.1-148		4091016	MS	10-Sep-24	8015B	
-------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: BIG EDDY UNIT 248H Project Number: 03C1558453 Project Manager: DAVID MCINNIS Fax To:	Reported: 17-Sep-24 15:23
--	--	------------------------------

**PH 01A 8'  
H245458-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	4091126	CT	11-Sep-24	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4091019	JH	10-Sep-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			106 %	71.5-134		4091019	JH	10-Sep-24	8021B	
--	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			97.7 %	48.2-134		4091016	MS	10-Sep-24	8015B	
----------------------------------	--	--	--------	----------	--	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			115 %	49.1-148		4091016	MS	10-Sep-24	8015B	
--------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: BIG EDDY UNIT 248H Project Number: 03C1558453 Project Manager: DAVID MCINNIS Fax To:	Reported: 17-Sep-24 15:23
--	--	------------------------------

**FS 10 2'**  
**H245458-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>80.0</b>		16.0	mg/kg	4	4091126	CT	11-Sep-24	4500-Cl-B	
-----------------	-------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4091019	JH	10-Sep-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			103 %	71.5-134		4091019	JH	10-Sep-24	8021B	
--	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			100 %	48.2-134		4091016	MS	10-Sep-24	8015B	
----------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			120 %	49.1-148		4091016	MS	10-Sep-24	8015B	
--------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: BIG EDDY UNIT 248H Project Number: 03C1558453 Project Manager: DAVID MCINNIS Fax To:	Reported: 17-Sep-24 15:23
--	--	------------------------------

**FS 11 2'**  
**H245458-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>144</b>		16.0	mg/kg	4	4091126	CT	11-Sep-24	4500-Cl-B	
-----------------	------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4091019	JH	10-Sep-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			105 %	71.5-134		4091019	JH	10-Sep-24	8021B	
--	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			96.4 %	48.2-134		4091016	MS	10-Sep-24	8015B	
----------------------------------	--	--	--------	----------	--	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			111 %	49.1-148		4091016	MS	10-Sep-24	8015B	
--------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: BIG EDDY UNIT 248H Project Number: 03C1558453 Project Manager: DAVID MCINNIS Fax To:	Reported: 17-Sep-24 15:23
--	--	------------------------------

**FS 15 2'**  
**H245458-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>144</b>		16.0	mg/kg	4	4091126	CT	11-Sep-24	4500-CI-B	
-----------------	------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4091019	JH	10-Sep-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			107 %	71.5-134		4091019	JH	10-Sep-24	8021B	
--	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			97.8 %	48.2-134		4091016	MS	10-Sep-24	8015B	
----------------------------------	--	--	--------	----------	--	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			113 %	49.1-148		4091016	MS	10-Sep-24	8015B	
--------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: BIG EDDY UNIT 248H Project Number: 03C1558453 Project Manager: DAVID MCINNIS Fax To:	Reported: 17-Sep-24 15:23
--	--	------------------------------

**PH 02 1'**  
**H245458-06 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>192</b>		16.0	mg/kg	4	4091126	CT	11-Sep-24	4500-Cl-B	
-----------------	------------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4091019	JH	10-Sep-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4091019	JH	10-Sep-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			107 %	71.5-134		4091019	JH	10-Sep-24	8021B	
--	--	--	-------	----------	--	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
<b>DRO &gt;C10-C28*</b>	<b>87.4</b>		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>13.3</b>		10.0	mg/kg	1	4091016	MS	10-Sep-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			94.3 %	48.2-134		4091016	MS	10-Sep-24	8015B	
----------------------------------	--	--	--------	----------	--	---------	----	-----------	-------	--

<i>Surrogate: 1-Chlorooctadecane</i>			111 %	49.1-148		4091016	MS	10-Sep-24	8015B	
--------------------------------------	--	--	-------	----------	--	---------	----	-----------	-------	--

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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: BIG EDDY UNIT 248H Project Number: 03C1558453 Project Manager: DAVID MCINNIS Fax To:	Reported: 17-Sep-24 15:23
--	--	------------------------------

**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 4091126 - 1:4 DI Water</b>										
<b>Blank (4091126-BLK1)</b>										
Prepared & Analyzed: 11-Sep-24										
Chloride	ND	16.0	mg/kg							
<b>LCS (4091126-BS1)</b>										
Prepared & Analyzed: 11-Sep-24										
Chloride	400	16.0	mg/kg	400		100	80-120			
<b>LCS Dup (4091126-BSD1)</b>										
Prepared & Analyzed: 11-Sep-24										
Chloride	416	16.0	mg/kg	400		104	80-120	3.92	20	

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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: BIG EDDY UNIT 248H Project Number: 03C1558453 Project Manager: DAVID MCINNIS Fax To:	Reported: 17-Sep-24 15:23
--	--	------------------------------

**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
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 4091019 - Volatiles**

**Blank (4091019-BLK1)**

Prepared & Analyzed: 10-Sep-24

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)	0.0517		mg/kg	0.0500		103	71.5-134			

**LCS (4091019-BS1)**

Prepared & Analyzed: 10-Sep-24

Benzene	2.05	0.050	mg/kg	2.00		102	82.8-130			
Toluene	2.08	0.050	mg/kg	2.00		104	86-128			
Ethylbenzene	2.07	0.050	mg/kg	2.00		103	85.9-128			
m,p-Xylene	4.42	0.100	mg/kg	4.00		110	89-129			
o-Xylene	2.11	0.050	mg/kg	2.00		105	86.1-125			
Total Xylenes	6.52	0.150	mg/kg	6.00		109	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	0.0501		mg/kg	0.0500		100	71.5-134			

**LCS Dup (4091019-BSD1)**

Prepared & Analyzed: 10-Sep-24

Benzene	1.81	0.050	mg/kg	2.00		90.3	82.8-130	12.5	15.8	
Toluene	1.84	0.050	mg/kg	2.00		92.0	86-128	12.4	15.9	
Ethylbenzene	1.82	0.050	mg/kg	2.00		90.9	85.9-128	12.9	16	
m,p-Xylene	3.91	0.100	mg/kg	4.00		97.7	89-129	12.2	16.2	
o-Xylene	1.85	0.050	mg/kg	2.00		92.5	86.1-125	12.9	16.7	
Total Xylenes	5.76	0.150	mg/kg	6.00		96.0	88.2-128	12.4	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0504		mg/kg	0.0500		101	71.5-134			

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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: BIG EDDY UNIT 248H Project Number: 03C1558453 Project Manager: DAVID MCINNIS Fax To:	Reported: 17-Sep-24 15:23
--	--	------------------------------

**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
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 4091016 - General Prep - Organics**

<b>Blank (4091016-BLK1)</b>		Prepared & Analyzed: 10-Sep-24								
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	46.2		mg/kg	50.0		92.5	48.2-134			
Surrogate: 1-Chlorooctadecane	53.1		mg/kg	50.0		106	49.1-148			

<b>LCS (4091016-BS1)</b>		Prepared & Analyzed: 10-Sep-24								
GRO C6-C10	204	10.0	mg/kg	200		102	66.4-123			
DRO >C10-C28	199	10.0	mg/kg	200		99.4	66.5-118			
Total TPH C6-C28	403	10.0	mg/kg	400		101	77.6-123			
Surrogate: 1-Chlorooctane	51.1		mg/kg	50.0		102	48.2-134			
Surrogate: 1-Chlorooctadecane	55.0		mg/kg	50.0		110	49.1-148			

<b>LCS Dup (4091016-BSD1)</b>		Prepared & Analyzed: 10-Sep-24								
GRO C6-C10	210	10.0	mg/kg	200		105	66.4-123	3.00	17.7	
DRO >C10-C28	209	10.0	mg/kg	200		104	66.5-118	4.92	21	
Total TPH C6-C28	419	10.0	mg/kg	400		105	77.6-123	3.95	18.5	
Surrogate: 1-Chlorooctane	54.7		mg/kg	50.0		109	48.2-134			
Surrogate: 1-Chlorooctadecane	58.9		mg/kg	50.0		118	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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

\*=Accredited Analyte

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 or 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 damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

September 18, 2024

DAVID MCINNIS

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: BIG EDDY UNIT 248H

Enclosed are the results of analyses for samples received by the laboratory on 09/17/24 14:11.

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.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	09/17/2024	Sampling Date:	09/17/2024
Reported:	09/18/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 14 .5' (H245642-01)**

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	09/17/2024	ND	2.11	105	2.00	6.21		
Toluene*	<0.050	0.050	09/17/2024	ND	2.13	107	2.00	6.10		
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.12	106	2.00	6.29		
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.53	109	6.00	6.13		
Total BTEX	<0.300	0.300	09/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	09/18/2024	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	09/17/2024	ND	201	101	200	2.40		
DRO >C10-C28*	<10.0	10.0	09/17/2024	ND	203	102	200	1.95		
EXT DRO >C28-C36	<10.0	10.0	09/17/2024	ND						

Surrogate: 1-Chlorooctane 117 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 09/17/2024  
 Reported: 09/18/2024  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62087 -103.83145

Sampling Date: 09/17/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SS 15 .5' (H245642-02)**

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	09/17/2024	ND	2.11	105	2.00	6.21		
Toluene*	<0.050	0.050	09/17/2024	ND	2.13	107	2.00	6.10		
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.12	106	2.00	6.29		
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.53	109	6.00	6.13		
Total BTEX	<0.300	0.300	09/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/18/2024	ND	416	104	400	7.41		

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	09/17/2024	ND	201	101	200	2.40		
DRO >C10-C28*	<10.0	10.0	09/17/2024	ND	203	102	200	1.95		
EXT DRO >C28-C36	<10.0	10.0	09/17/2024	ND						

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	09/17/2024	Sampling Date:	09/17/2024
Reported:	09/18/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 16 .5' (H245642-03)**

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	09/17/2024	ND	2.11	105	2.00	6.21		
Toluene*	<0.050	0.050	09/17/2024	ND	2.13	107	2.00	6.10		
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.12	106	2.00	6.29		
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.53	109	6.00	6.13		
Total BTEX	<0.300	0.300	09/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/18/2024	ND	416	104	400	7.41		

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	09/17/2024	ND	201	101	200	2.40		
DRO >C10-C28*	<10.0	10.0	09/17/2024	ND	203	102	200	1.95		
EXT DRO >C28-C36	<10.0	10.0	09/17/2024	ND						

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 09/17/2024  
 Reported: 09/18/2024  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62087 -103.83145

Sampling Date: 09/17/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SS 17 .5' (H245642-04)**

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	09/17/2024	ND	2.11	105	2.00	6.21		
Toluene*	<0.050	0.050	09/17/2024	ND	2.13	107	2.00	6.10		
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.12	106	2.00	6.29		
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.53	109	6.00	6.13		
Total BTEX	<0.300	0.300	09/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/18/2024	ND	416	104	400	7.41		

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	09/17/2024	ND	201	101	200	2.40		
DRO >C10-C28*	<10.0	10.0	09/17/2024	ND	203	102	200	1.95		
EXT DRO >C28-C36	<10.0	10.0	09/17/2024	ND						

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 09/17/2024  
 Reported: 09/18/2024  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62087 -103.83145

Sampling Date: 09/17/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SS 18 .5' (H245642-05)**

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	09/17/2024	ND	2.11	105	2.00	6.21	
Toluene*	<0.050	0.050	09/17/2024	ND	2.13	107	2.00	6.10	
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.12	106	2.00	6.29	
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.53	109	6.00	6.13	
Total BTEX	<0.300	0.300	09/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/18/2024	ND	416	104	400	7.41	

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	09/17/2024	ND	201	101	200	2.40	
DRO >C10-C28*	<10.0	10.0	09/17/2024	ND	203	102	200	1.95	
EXT DRO >C28-C36	<10.0	10.0	09/17/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 09/17/2024  
 Reported: 09/18/2024  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62087 -103.83145

Sampling Date: 09/17/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SS 19 .5' (H245642-06)**

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	09/17/2024	ND	2.11	105	2.00	6.21	
Toluene*	<0.050	0.050	09/17/2024	ND	2.13	107	2.00	6.10	
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.12	106	2.00	6.29	
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.53	109	6.00	6.13	
Total BTEX	<0.300	0.300	09/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/18/2024	ND	416	104	400	7.41	

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	09/17/2024	ND	201	101	200	2.40	
DRO >C10-C28*	<10.0	10.0	09/17/2024	ND	203	102	200	1.95	
EXT DRO >C28-C36	<10.0	10.0	09/17/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 09/17/2024  
 Reported: 09/18/2024  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62087 -103.83145

Sampling Date: 09/17/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SS 20 .5' (H245642-07)**

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	09/17/2024	ND	2.11	105	2.00	6.21		
Toluene*	<0.050	0.050	09/17/2024	ND	2.13	107	2.00	6.10		
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.12	106	2.00	6.29		
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.53	109	6.00	6.13		
Total BTEX	<0.300	0.300	09/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/18/2024	ND	416	104	400	7.41		

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	09/17/2024	ND	201	101	200	2.40		
DRO >C10-C28*	<10.0	10.0	09/17/2024	ND	203	102	200	1.95		
EXT DRO >C28-C36	<10.0	10.0	09/17/2024	ND						

Surrogate: 1-Chlorooctane 99.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	09/17/2024	Sampling Date:	09/17/2024
Reported:	09/18/2024	Sampling Type:	Soil
Project Name:	BIG EDDY UNIT 248H	Sampling Condition:	Cool & Intact
Project Number:	03C1558453	Sample Received By:	Shalyn Rodriguez
Project Location:	XTO 32.62087 -103.83145		

**Sample ID: SS 21 .5' (H245642-08)**

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	09/17/2024	ND	2.11	105	2.00	6.21		
Toluene*	<0.050	0.050	09/17/2024	ND	2.13	107	2.00	6.10		
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.12	106	2.00	6.29		
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.53	109	6.00	6.13		
Total BTEX	<0.300	0.300	09/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/18/2024	ND	416	104	400	7.41		

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	09/17/2024	ND	201	101	200	2.40		
DRO >C10-C28*	<10.0	10.0	09/17/2024	ND	203	102	200	1.95		
EXT DRO >C28-C36	<10.0	10.0	09/17/2024	ND						

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 09/17/2024  
 Reported: 09/18/2024  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62087 -103.83145

Sampling Date: 09/17/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SS 22 .5' (H245642-09)**

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	09/17/2024	ND	2.11	105	2.00	6.21		
Toluene*	<0.050	0.050	09/17/2024	ND	2.13	107	2.00	6.10		
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.12	106	2.00	6.29		
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.53	109	6.00	6.13		
Total BTEX	<0.300	0.300	09/17/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/18/2024	ND	416	104	400	7.41		

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	09/18/2024	ND	201	101	200	2.40		
DRO >C10-C28*	<10.0	10.0	09/18/2024	ND	203	102	200	1.95		
EXT DRO >C28-C36	<10.0	10.0	09/18/2024	ND						

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM  
 DAVID MCINNIS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received: 09/17/2024  
 Reported: 09/18/2024  
 Project Name: BIG EDDY UNIT 248H  
 Project Number: 03C1558453  
 Project Location: XTO 32.62087 -103.83145

Sampling Date: 09/17/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SS 23 .5' (H245642-10)**

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	09/17/2024	ND	2.11	105	2.00	6.21	
Toluene*	<0.050	0.050	09/17/2024	ND	2.13	107	2.00	6.10	
Ethylbenzene*	<0.050	0.050	09/17/2024	ND	2.12	106	2.00	6.29	
Total Xylenes*	<0.150	0.150	09/17/2024	ND	6.53	109	6.00	6.13	
Total BTEX	<0.300	0.300	09/17/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/18/2024	ND	416	104	400	7.41	

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	09/18/2024	ND	201	101	200	2.40	
DRO >C10-C28*	<10.0	10.0	09/18/2024	ND	203	102	200	1.95	
EXT DRO >C28-C36	<10.0	10.0	09/18/2024	ND					

Surrogate: 1-Chlorooctane 116 % 48.2-134

Surrogate: 1-Chlorooctadecane 124 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

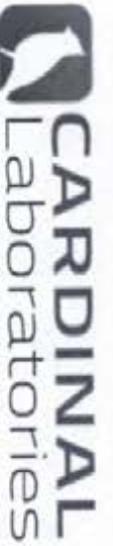
Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

*Celey D. Keene*

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: Ensolium, LLC  
 Project Manager: David McInnis  
 Address: 3122 National Parks Hwy  
 City: Carlsbad State: NM Zip: 88220  
 Phone #: 409-454-3009 Fax #:   
 Project #: 03C1558453 Project Owner: XTO  
 Project Name: Big Eddy Unit 248H  
 Project Location: 32.62087, -103.83145  
 Sampler Name: Jesse Dorman  
 P.O. #:   
 Company: XTO Energy Inc.  
 Attn: Amy Ruth  
 Address: 3104 E. Green St.  
 City: Carlsbad  
 State: NM Zip: 88220  
 Phone #:   
 Fax #:

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:					
HAUSCMB	5514	5'	G	1								9/17/21	1130			
	5515	5'	G	1									1133			
	5516	5'	G	1									1135			
	5517	5'	G	1									1136			
	5518	5'	G	1									1141			
	5519	5'	G	1									1144			
	5520	5'	G	1									1152			
	5521	5'	G	1									1153			
	5522	5'	G	1									1154			
	5523	5'	G	1									1154			

PLEASE NOTE: Labels and Containers. Containers used for any other agency whether issued at contract or not, shall be sealed to the amount paid by the client for the analysis. All items, including those for negligence and any other claims whatsoever shall be deemed sealed unless made to verify and sealed 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 interruption, loss of data, 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. Inspection of whether such claim is barred depends on the dates stated on labels or containers.

Relinquished By: *[Signature]* Date: 9/17/21  
 Received By: *[Signature]* Date: 9/17/21  
 Time:   
 Checked By: *[Signature]*  
 Turnaround Time:   
 Thermo ID #115  
 Standard Rush   
 Bacteria (only)   
 Cool Intact   
 Yes  No   
 Corrected Temp. °C

Delivered By: (Circle One)  UPS  Bus  Other:   
 Corrected Temp. °C 0.92  
 Sample Condition Cool Intact Yes Yes No No  
 CHECKED BY: *[Signature]*  
 Remarks:   
 Verbal Result:  Yes  No Adm Phone #:   
 All Results are emailed. Please provide Email address:   
 Dmcmis@ensolium.com Thorrisey@ensolium.com Minnason@ensolium.com  
 REMARKS: Cool Center: 1140201001 Incident ID: NAPP2418043567  
 Cardinal cannot accept verbal changes. Please email changes to caley.keene@cardinalabnm.com



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

February 03, 2025

TRACY HILLARD  
ENSOLUM, LLC  
705 W WADLEY AVE.  
MIDLAND, TX 79705

RE: BEU 2481249H

Enclosed are the results of analyses for samples received by the laboratory on 01/31/25 17:00.

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/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.

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:	01/31/2025	Sampling Date:	01/31/2025
Reported:	02/03/2025	Sampling Type:	Soil
Project Name:	BEU 2481249H	Sampling Condition:	Cool & Intact
Project Number:	03C155877 03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085, -103.83132		

**Sample ID: PH 03 1 (H250597-01)**

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	01/31/2025	ND	2.33	117	2.00	0.910	
Toluene*	<0.050	0.050	01/31/2025	ND	2.37	119	2.00	2.56	
Ethylbenzene*	<0.050	0.050	01/31/2025	ND	2.53	127	2.00	1.63	
Total Xylenes*	<0.150	0.150	01/31/2025	ND	7.63	127	6.00	0.157	
Total BTEX	<0.300	0.300	01/31/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 121 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4040	16.0	02/03/2025	ND	416	104	400	7.41	

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	01/31/2025	ND	202	101	200	0.762	
DRO >C10-C28*	<10.0	10.0	01/31/2025	ND	181	90.4	200	2.52	
EXT DRO >C28-C36	<10.0	10.0	01/31/2025	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.4 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/31/2025	Sampling Date:	01/31/2025
Reported:	02/03/2025	Sampling Type:	Soil
Project Name:	BEU 2481249H	Sampling Condition:	Cool & Intact
Project Number:	03C155877 03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085, -103.83132		

**Sample ID: PH 03 4 (H250597-02)**

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	01/31/2025	ND	2.33	117	2.00	0.910	
Toluene*	<0.050	0.050	01/31/2025	ND	2.37	119	2.00	2.56	
Ethylbenzene*	<0.050	0.050	01/31/2025	ND	2.53	127	2.00	1.63	
Total Xylenes*	<0.150	0.150	01/31/2025	ND	7.63	127	6.00	0.157	
Total BTEX	<0.300	0.300	01/31/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/03/2025	ND	416	104	400	7.41	

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	01/31/2025	ND	202	101	200	0.762	
DRO >C10-C28*	<10.0	10.0	01/31/2025	ND	181	90.4	200	2.52	
EXT DRO >C28-C36	<10.0	10.0	01/31/2025	ND					

Surrogate: 1-Chlorooctane 95.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.3 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/31/2025	Sampling Date:	01/31/2025
Reported:	02/03/2025	Sampling Type:	Soil
Project Name:	BEU 2481249H	Sampling Condition:	Cool & Intact
Project Number:	03C155877 03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085, -103.83132		

**Sample ID: PH 01 5 (H250597-03)**

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	01/31/2025	ND	2.33	117	2.00	0.910	
Toluene*	<0.050	0.050	01/31/2025	ND	2.37	119	2.00	2.56	
Ethylbenzene*	<0.050	0.050	01/31/2025	ND	2.53	127	2.00	1.63	
Total Xylenes*	<0.150	0.150	01/31/2025	ND	7.63	127	6.00	0.157	
Total BTEX	<0.300	0.300	01/31/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	02/03/2025	ND	416	104	400	7.41	

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	01/31/2025	ND	202	101	200	0.762	
DRO >C10-C28*	<10.0	10.0	01/31/2025	ND	181	90.4	200	2.52	
EXT DRO >C28-C36	<10.0	10.0	01/31/2025	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.5 % 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.

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:	01/31/2025	Sampling Date:	01/31/2025
Reported:	02/03/2025	Sampling Type:	Soil
Project Name:	BEU 2481249H	Sampling Condition:	Cool & Intact
Project Number:	03C155877 03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085, -103.83132		

**Sample ID: PH 01 6 (H250597-04)**

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	01/31/2025	ND	2.33	117	2.00	0.910	
Toluene*	<0.050	0.050	01/31/2025	ND	2.37	119	2.00	2.56	
Ethylbenzene*	<0.050	0.050	01/31/2025	ND	2.53	127	2.00	1.63	
Total Xylenes*	<0.150	0.150	01/31/2025	ND	7.63	127	6.00	0.157	
Total BTEX	<0.300	0.300	01/31/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	02/03/2025	ND	416	104	400	7.41	

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	01/31/2025	ND	202	101	200	0.762	
DRO >C10-C28*	<10.0	10.0	01/31/2025	ND	181	90.4	200	2.52	
EXT DRO >C28-C36	<10.0	10.0	01/31/2025	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/31/2025	Sampling Date:	01/31/2025
Reported:	02/03/2025	Sampling Type:	Soil
Project Name:	BEU 2481249H	Sampling Condition:	Cool & Intact
Project Number:	03C155877 03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085, -103.83132		

**Sample ID: PH 01 9 (H250597-05)**

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	01/31/2025	ND	2.33	117	2.00	0.910	
Toluene*	<0.050	0.050	01/31/2025	ND	2.37	119	2.00	2.56	
Ethylbenzene*	<0.050	0.050	01/31/2025	ND	2.53	127	2.00	1.63	
Total Xylenes*	<0.150	0.150	01/31/2025	ND	7.63	127	6.00	0.157	
Total BTEX	<0.300	0.300	01/31/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	02/03/2025	ND	416	104	400	7.41	

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	01/31/2025	ND	202	101	200	0.762	
DRO >C10-C28*	<10.0	10.0	01/31/2025	ND	181	90.4	200	2.52	
EXT DRO >C28-C36	<10.0	10.0	01/31/2025	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.2 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/31/2025	Sampling Date:	01/31/2025
Reported:	02/03/2025	Sampling Type:	Soil
Project Name:	BEU 2481249H	Sampling Condition:	Cool & Intact
Project Number:	03C155877 03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085, -103.83132		

**Sample ID: PH 04 4 (H250597-06)**

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	01/31/2025	ND	2.33	117	2.00	0.910	
Toluene*	<0.050	0.050	01/31/2025	ND	2.37	119	2.00	2.56	
Ethylbenzene*	<0.050	0.050	01/31/2025	ND	2.53	127	2.00	1.63	
Total Xylenes*	<0.150	0.150	01/31/2025	ND	7.63	127	6.00	0.157	
Total BTEX	<0.300	0.300	01/31/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1010</b>	16.0	02/03/2025	ND	416	104	400	7.41	

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	01/31/2025	ND	202	101	200	0.762	
<b>DRO &gt;C10-C28*</b>	<b>179</b>	10.0	01/31/2025	ND	181	90.4	200	2.52	
<b>EXT DRO &gt;C28-C36</b>	<b>41.8</b>	10.0	01/31/2025	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.7 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/31/2025	Sampling Date:	01/31/2025
Reported:	02/03/2025	Sampling Type:	Soil
Project Name:	BEU 2481249H	Sampling Condition:	Cool & Intact
Project Number:	03C155877 03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085, -103.83132		

**Sample ID: PH 02 1 (H250597-07)**

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	01/31/2025	ND	2.33	117	2.00	0.910	
Toluene*	<0.050	0.050	01/31/2025	ND	2.37	119	2.00	2.56	
Ethylbenzene*	<0.050	0.050	01/31/2025	ND	2.53	127	2.00	1.63	
Total Xylenes*	<0.150	0.150	01/31/2025	ND	7.63	127	6.00	0.157	
Total BTEX	<0.300	0.300	01/31/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>176</b>	16.0	02/03/2025	ND	416	104	400	7.41	

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	01/31/2025	ND	202	101	200	0.762	
<b>DRO &gt;C10-C28*</b>	<b>135</b>	10.0	01/31/2025	ND	181	90.4	200	2.52	
<b>EXT DRO &gt;C28-C36</b>	<b>54.7</b>	10.0	01/31/2025	ND					

Surrogate: 1-Chlorooctane 99.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.2 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

*Celey D. Keene*

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: *Trey Miller*  
 Address: 601 N Marland Street, Suite 400  
 City: Midland State: TX Zip: 79701  
 Phone #: 575-937-3906 Fax #: *575-393-2326*  
 Project #: 03155877 031558753  
 Project Name: *BEN 2981249H* Project Owner: XTO Energy  
 Project Location: 32.62085, -103.83132  
 Sampler Name: *Even Rice*  
 P.O. #: \_\_\_\_\_ Company: XTO Energy, Inc  
 Attn: Colton Brown  
 Address: 3104 E Greene 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	TPH 8015	BTEX 8021	Chloride 4500	
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:						ICE / COOL
<i>1250591</i>	<i>PH03</i>	<i>1</i>	<i>G</i>	<i>1</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>1/31/25</i>	<i>1035</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
	<i>PH03</i>	<i>4</i>	<i>G</i>	<i>1</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>1/31/25</i>	<i>1208</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
	<i>PH01</i>	<i>5</i>	<i>G</i>	<i>1</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>1/31/25</i>	<i>1230</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
	<i>PH01</i>	<i>6</i>	<i>G</i>	<i>1</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>1/31/25</i>	<i>1235</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
	<i>PH01</i>	<i>9</i>	<i>G</i>	<i>1</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>1/31/25</i>	<i>1243</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
	<i>PH04</i>	<i>1</i>	<i>G</i>	<i>1</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>1/31/25</i>	<i>1408</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
	<i>PH02</i>	<i>1</i>	<i>G</i>	<i>1</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>1/31/25</i>	<i>1424</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						

PLEASE NOTE: Laundry and Drainage. Customer safety and client records remain the property of the client for the analysis. All data including those for negligence and any other claims shall be destroyed unless made in writing and received by Cardinal within 30 days after completion of the application. It is the client's responsibility to ensure that all data is accurate and complete. The client is responsible for the accuracy of the data provided. The client is responsible for the accuracy of the data provided. The client is responsible for the accuracy of the data provided.

Relinquished By: *[Signature]* Date: *1/31/25* Time: *1:00*  
 Received By: *[Signature]* Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Delivered By: (Circle One)  On-site  Lab  Other: \_\_\_\_\_  
 Sample Condition:  Cool  Intact  Yes  No  
 Checked By: *[Signature]*  
 Remarks: *APP 2418043567 APP 2432531235 APP 2432142637 APP 2502042071*  
 Standard  Bacteria (only)  Sample Condition  Observed Temp.  Corrected Temp.  *2.8*  *2.7*

Cardinal cannot accept verbal changes. Please email changes to cdeley.keene@cardinallabsnm.com



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

February 03, 2025

TRACY HILLARD

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: BEU 2481249H

Enclosed are the results of analyses for samples received by the laboratory on 01/31/25 17:00.

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/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.

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:	01/31/2025	Sampling Date:	01/31/2025
Reported:	02/03/2025	Sampling Type:	Soil
Project Name:	BEU 2481249H	Sampling Condition:	Cool & Intact
Project Number:	03C155877 03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085, -103.83132		

**Sample ID: PH 05 1' (H250598-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>1.15</b>	0.500	02/03/2025	ND	2.37	118	2.00	6.88	
<b>Toluene*</b>	<b>16.3</b>	0.500	02/03/2025	ND	2.51	125	2.00	11.1	
<b>Ethylbenzene*</b>	<b>11.9</b>	0.500	02/03/2025	ND	2.54	127	2.00	12.7	
<b>Total Xylenes*</b>	<b>23.7</b>	1.50	02/03/2025	ND	7.52	125	6.00	12.8	
<b>Total BTEX</b>	<b>53.1</b>	3.00	02/03/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>2480</b>	16.0	02/03/2025	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>419</b>	10.0	01/31/2025	ND	202	101	200	0.762	
<b>DRO &gt;C10-C28*</b>	<b>1550</b>	10.0	01/31/2025	ND	181	90.4	200	2.52	
<b>EXT DRO &gt;C28-C36</b>	<b>277</b>	10.0	01/31/2025	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.3 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/31/2025	Sampling Date:	01/31/2025
Reported:	02/03/2025	Sampling Type:	Soil
Project Name:	BEU 2481249H	Sampling Condition:	Cool & Intact
Project Number:	03C155877 03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085, -103.83132		

**Sample ID: PH 05 2' (H250598-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/03/2025	ND	2.37	118	2.00	6.88	
<b>Toluene*</b>	<b>0.215</b>	0.050	02/03/2025	ND	2.51	125	2.00	11.1	
<b>Ethylbenzene*</b>	<b>0.080</b>	0.050	02/03/2025	ND	2.54	127	2.00	12.7	
Total Xylenes*	<0.150	0.150	02/03/2025	ND	7.52	125	6.00	12.8	
<b>Total BTEX</b>	<b>0.474</b>	0.300	02/03/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 120 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>640</b>	16.0	02/03/2025	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/03/2025	ND	202	101	200	0.762	
<b>DRO &gt;C10-C28*</b>	<b>20.7</b>	10.0	02/03/2025	ND	181	90.4	200	2.52	
EXT DRO >C28-C36	<10.0	10.0	02/03/2025	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/31/2025	Sampling Date:	01/31/2025
Reported:	02/03/2025	Sampling Type:	Soil
Project Name:	BEU 2481249H	Sampling Condition:	Cool & Intact
Project Number:	03C155877 03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085, -103.83132		

**Sample ID: PH 05 3' (H250598-03)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/01/2025	ND	2.33	117	2.00	0.910		
Toluene*	<0.050	0.050	02/01/2025	ND	2.37	119	2.00	2.56		
Ethylbenzene*	<0.050	0.050	02/01/2025	ND	2.53	127	2.00	1.63		
Total Xylenes*	<0.150	0.150	02/01/2025	ND	7.63	127	6.00	0.157		
Total BTEX	<0.300	0.300	02/01/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	02/03/2025	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/03/2025	ND	202	101	200	0.762		
DRO >C10-C28*	<10.0	10.0	02/03/2025	ND	181	90.4	200	2.52		
EXT DRO >C28-C36	<10.0	10.0	02/03/2025	ND						

Surrogate: 1-Chlorooctane 83.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.0 % 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.

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:	01/31/2025	Sampling Date:	01/31/2025
Reported:	02/03/2025	Sampling Type:	Soil
Project Name:	BEU 2481249H	Sampling Condition:	Cool & Intact
Project Number:	03C155877 03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085, -103.83132		

**Sample ID: PH 05 4' (H250598-04)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/01/2025	ND	2.33	117	2.00	0.910	
Toluene*	<0.050	0.050	02/01/2025	ND	2.37	119	2.00	2.56	
Ethylbenzene*	<0.050	0.050	02/01/2025	ND	2.53	127	2.00	1.63	
Total Xylenes*	<0.150	0.150	02/01/2025	ND	7.63	127	6.00	0.157	
Total BTEX	<0.300	0.300	02/01/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/03/2025	ND	416	104	400	7.41	

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	01/31/2025	ND	202	101	200	0.762	
DRO >C10-C28*	<10.0	10.0	01/31/2025	ND	181	90.4	200	2.52	
EXT DRO >C28-C36	<10.0	10.0	01/31/2025	ND					

Surrogate: 1-Chlorooctane 96.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.6 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/31/2025	Sampling Date:	01/31/2025
Reported:	02/03/2025	Sampling Type:	Soil
Project Name:	BEU 2481249H	Sampling Condition:	Cool & Intact
Project Number:	03C155877 03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085, -103.83132		

**Sample ID: PH 05 5' (H250598-05)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/01/2025	ND	2.33	117	2.00	0.910	
Toluene*	<0.050	0.050	02/01/2025	ND	2.37	119	2.00	2.56	
Ethylbenzene*	<0.050	0.050	02/01/2025	ND	2.53	127	2.00	1.63	
Total Xylenes*	<0.150	0.150	02/01/2025	ND	7.63	127	6.00	0.157	
Total BTEX	<0.300	0.300	02/01/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/03/2025	ND	416	104	400	7.41	

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	01/31/2025	ND	202	101	200	0.762	
DRO >C10-C28*	<10.0	10.0	01/31/2025	ND	181	90.4	200	2.52	
EXT DRO >C28-C36	<10.0	10.0	01/31/2025	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.9 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/31/2025	Sampling Date:	01/31/2025
Reported:	02/03/2025	Sampling Type:	Soil
Project Name:	BEU 2481249H	Sampling Condition:	Cool & Intact
Project Number:	03C155877 03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085, -103.83132		

**Sample ID: PH 05 6' (H250598-06)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/01/2025	ND	2.33	117	2.00	0.910	
Toluene*	<0.050	0.050	02/01/2025	ND	2.37	119	2.00	2.56	
Ethylbenzene*	<0.050	0.050	02/01/2025	ND	2.53	127	2.00	1.63	
Total Xylenes*	<0.150	0.150	02/01/2025	ND	7.63	127	6.00	0.157	
Total BTEX	<0.300	0.300	02/01/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/03/2025	ND	416	104	400	7.41	

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	01/31/2025	ND	202	101	200	0.762	
DRO >C10-C28*	<10.0	10.0	01/31/2025	ND	181	90.4	200	2.52	
EXT DRO >C28-C36	<10.0	10.0	01/31/2025	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

ENSOLUM, LLC  
 TRACY HILLARD  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received:	01/31/2025	Sampling Date:	01/31/2025
Reported:	02/03/2025	Sampling Type:	Soil
Project Name:	BEU 2481249H	Sampling Condition:	Cool & Intact
Project Number:	03C155877 03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085, -103.83132		

**Sample ID: PH 05 7' (H250598-07)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/01/2025	ND	2.33	117	2.00	0.910		
Toluene*	<0.050	0.050	02/01/2025	ND	2.37	119	2.00	2.56		
Ethylbenzene*	<0.050	0.050	02/01/2025	ND	2.53	127	2.00	1.63		
Total Xylenes*	<0.150	0.150	02/01/2025	ND	7.63	127	6.00	0.157		
Total BTEX	<0.300	0.300	02/01/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	02/03/2025	ND	416	104	400	7.41		

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	01/31/2025	ND	202	101	200	0.762		
DRO >C10-C28*	<10.0	10.0	01/31/2025	ND	181	90.4	200	2.52		
EXT DRO >C28-C36	<10.0	10.0	01/31/2025	ND						

Surrogate: 1-Chlorooctane 98.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.8 % 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.

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:	01/31/2025	Sampling Date:	01/31/2025
Reported:	02/03/2025	Sampling Type:	Soil
Project Name:	BEU 2481249H	Sampling Condition:	Cool & Intact
Project Number:	03C155877 03C1558453	Sample Received By:	Alyssa Parras
Project Location:	XTO 32.62085, -103.83132		

**Sample ID: PH 05 8' (H250598-08)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/01/2025	ND	2.33	117	2.00	0.910		
Toluene*	<0.050	0.050	02/01/2025	ND	2.37	119	2.00	2.56		
Ethylbenzene*	<0.050	0.050	02/01/2025	ND	2.53	127	2.00	1.63		
Total Xylenes*	<0.150	0.150	02/01/2025	ND	7.63	127	6.00	0.157		
Total BTEX	<0.300	0.300	02/01/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	02/03/2025	ND	416	104	400	7.41		

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	01/31/2025	ND	202	101	200	0.762		
DRO >C10-C28*	<10.0	10.0	01/31/2025	ND	181	90.4	200	2.52		
EXT DRO >C28-C36	<10.0	10.0	01/31/2025	ND						

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.8 % 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.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

*Celey D. Keene*

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: Trey Hillard  
 Address: 601 N Marland Street, Suite 400  
 City: Midland State: TX Zip: 79701  
 Phone #: 575-437-3506 Fax #: 575-354-3333  
 Project # 03C155477 Project Owner: XTO Energy  
 Project Name: BEN 2481249H  
 Project Location: 52,62085,-103,83132  
 Sampler Name: Even Rev  
 P.O. #: \_\_\_\_\_ Company: XTO Energy, Inc  
 Attn: Colton Brown  
 Address: 3104 E Greene 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	TPH 8015	BTEX 8021	Chloride 4500
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE					
HRS0598	1 PHOS	1	G									5/1/25	1307	✓	✓	✓
	2 PHOS	2	G									7/31/25	1313	✓	✓	✓
	3 PHOS	3	G									1/31/25	1319	✓	✓	✓
	4 PHOS	4	G									1/31/25	1324	✓	✓	✓
	5 PHOS	5	G									1/31/25	1327	✓	✓	✓
	6 PHOS	6	G									1/31/25	1333	✓	✓	✓
	7 PHOS	7	G									1/31/25	1339	✓	✓	✓
	8 PHOS	8	G									1/31/25	1348	✓	✓	✓

FOR LAB USE ONLY

Relinquished By: \_\_\_\_\_ Date: 1-31-25  
 Received By: \_\_\_\_\_ Date: 1/31/25  
 Received By: \_\_\_\_\_ Date: \_\_\_\_\_

Temperature: 33.1 °C  
 Corrected Temp: 37.2 °C

Sample Condition:  Cool  Intact  
 Yes  No

Checked By: \_\_\_\_\_ (Initials)

REMARKS:  
 Turnaround Time: Standard  
 APP 241 804 3567 APP 243 253 1235  
 APP 243 214 7637 APP 250 204 2071

Thermometer ID: 444492  
 Calibration Factor: 0.00

Verbal Results:  Yes  No Add'l Phone #: \_\_\_\_\_  
 All Results are emailed. Please provide Email address: \_\_\_\_\_  
 Bbell@ensolum.com, TMorrissey@ensolum.com, T.Hillard@ensolum.com

Bacteria (only) Sample Condition:  Cool  Intact  
 Yes  No Observed Temp: \_\_\_\_\_  
 Corrected Temp: \_\_\_\_\_

† Cardinal cannot accept verbal changes. Please email changes to celey.koene@cardinalabsnm.com



Appendix E

NMOCD Correspondence

---

**Ben Belill**

---

**From:** Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>  
**Sent:** Thursday, January 16, 2025 9:51 AM  
**To:** Brown, Colton S  
**Cc:** Dirkx, Kaylan; Garcia, Amanda; Mcafee, Ashley A; Tacoma Morrissey; Ben Belill; Bratcher, Michael, EMNRD; Wells, Shelly, EMNRD  
**Subject:** (Variance Approval) -XTO - Big Eddy Unit 248H- Incident Number NAPP2418043567

[\*\*EXTERNAL EMAIL\*\*]

Colton,

The Variance Request for confirmation floor sample size of 1,000 ft2 in the “Area of Investigation” is approved. The “Release Area” will still need confirmation samples representing no more than 200 ft2. Please include this e-mail correspondence in the Remediation Closure Report. I have changed the location and coordinates to match where the majority of the release occurred, which is Unit A, Section 35, Township 19 South, Range 31 East, in Eddy County, New Mexico (32.62087°, -103.83145°).

Regards,

**Robert Hamlet** • Environmental Specialist - Advanced  
Environmental Bureau  
EMNRD - Oil Conservation Division  
506 W. Texas Ave. | Artesia, NM 88210  
575.909.0302 | [robert.hamlet@emnrd.nm.gov](mailto:robert.hamlet@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>



---

**From:** Brown, Colton S <colton.s.brown@exxonmobil.com>  
**Sent:** Thursday, January 16, 2025 7:19 AM  
**To:** Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>  
**Cc:** Dirkx, Kaylan <kaylan.dirkx@exxonmobil.com>; Garcia, Amanda <amanda.garcia@exxonmobil.com>; Mcafee, Ashley A <ashley.a.mcafee@exxonmobil.com>; Tacoma Morrissey <tmorrissey@ensolum.com>; Ben Belill <bbelill@ensolum.com>  
**Subject:** [EXTERNAL] XTO- Variance Request- Big Eddy Unit 248H- Incident Number

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good Morning,

Please see the sampling variance below and supporting documentation attached. Please let me know of any questions or concerns.

Mr. Hamlet,

Based on our discussion today, XTO is submitting a variance request for the confirmation soil sampling requested in the conditions of approval for a Remediation Work Plan. The Work Plan was submitted September 20, 2024 and approved on November 6, 2024 with the following conditions of approval:

- "...Confirmation samples will need to be conducted at surface and at 0.5 feet in the "Area of Investigation" to ensure that contaminants didn't get carried/deposited in this area. All off-pad areas must meet reclamation/revegetation standards set forth in the OCD Spill Rule."

As discussed on our call, January 15, 2024, the "area of investigation" was investigated to assess the area due to high winds at the time of the release in a northwesterly direction. Vegetation was assessed by a staff biologist, and delineation soil samples were collected within an around the area of investigation. The vegetation was determined to be healthy and similar to the surrounding area and no impacts to soil were identified. As such, XTO proposed continued monitoring of the area of investigation. XTO's goal was to be especially protective of the sparse vegetation in the area and to mitigate any additional disturbance of the area as it is in a mapped area for potential Dune Sagebrush Lizard habitat. Following our conversation, XTO understands the need for confirmation soil sampling of the area, however, to ensure minimal disturbance of the area, XTO proposes a variance of the 200 square foot confirmation soil sample frequency and recommends confirmation soil sample be collected on a 1,000 square foot sampling frequency. We believe this will provide additional confirmation that no impacted soil exists in the area and be protective of the vegetative health and potential habitat of the Dune Sagebrush Lizard.

One note, the coordinates on the OCD portal are incorrect, as stated in the Work Plan: The release was initially reported at the incorrect location but following a review of initial release records, internal documents, and personnel communications, it was confirmed the release is located on the Big Eddy Unit 248H well pad. The majority of the release is located in Unit A, Section 35, Township 19 South, Range 31 East, in Eddy County, New Mexico (32.62087°, -103.83145°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM). However, a portion of the release occurred on State Land managed by New Mexico State Land Office (SLO) in Unit D, Section 36, Township 19 South, and Range 31 East.

The following attachments are included as supporting documentation.

- Figure 1 Site Location Map (showing the correct location)
- Figure 2 Delineation Soil Sample Locations
- Figure 3 Vegetation Survey Transects
- Table 1 Soil Sample Analytical Results
- Photographic Log

If we can provide any additional information, please let us know.

Thank you

**Colton Brown**  
Spill Coordinator

**ExxonMobil Upstream Company**  
3104 E. Greene St.  
Carlsbad, NM 88220  
Cell Phone: 575-988-2390  
[colton.s.brown@exxonmobil.com](mailto:colton.s.brown@exxonmobil.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 459817

**QUESTIONS**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 459817
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2418043567
Incident Name	NAPP2418043567 BIG EDDY UNIT 248H @ 30-015-40714
Incident Type	Release Other
Incident Status	Remediation Closure Report Received
Incident Well	[30-015-40714] BIG EDDY UNIT #248H

<b>Location of Release Source</b>	
<i>Please answer all the questions in this group.</i>	
Site Name	BIG EDDY UNIT 248H
Date Release Discovered	06/21/2024
Surface Owner	Federal

<b>Incident Details</b>	
<i>Please answer all the questions in this group.</i>	
Incident Type	Release Other
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

<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	Cause: Equipment Failure   Well   Crude Oil   Released: 5 BBL   Recovered: 2 BBL   Lost: 3 BBL.
Produced Water Released (bbls) Details	Cause: Equipment Failure   Well   Produced Water   Released: 9 BBL   Recovered: 3 BBL   Lost: 6 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 459817

**QUESTIONS (continued)**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 459817
	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>True</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	<i>Not answered.</i>

*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: Ashley McAfee Email: <a href="mailto:ashley.a.mcafee@exxonmobil.com">ashley.a.mcafee@exxonmobil.com</a> Date: 05/07/2025
--	--

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 3

Action 459817

**QUESTIONS (continued)**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 459817
	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	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 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 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between 1 and 5 (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)	4040
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	3399
GRO+DRO (EPA SW-846 Method 8015M)	2786
BTEX (EPA SW-846 Method 8021B or 8260B)	5
Benzene (EPA SW-846 Method 8021B or 8260B)	0

*Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.*

On what estimated date will the remediation commence	07/29/2024
On what date will (or did) the final sampling or liner inspection occur	04/04/2025
On what date will (or was) the remediation complete(d)	04/04/2025
What is the estimated surface area (in square feet) that will be reclaimed	10700
What is the estimated volume (in cubic yards) that will be reclaimed	1500
What is the estimated surface area (in square feet) that will be remediated	10700
What is the estimated volume (in cubic yards) that will be remediated	1500

*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.*

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 4

Action 459817

**QUESTIONS (continued)**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 459817
	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	No
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	No
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No

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: Ashley McAfee Email: ashley.a.mcafee@exxonmobil.com Date: 05/07/2025
--	--

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.

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

QUESTIONS, Page 5

Action 459817

**QUESTIONS (continued)**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 459817
	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

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 6

Action 459817

**QUESTIONS (continued)**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 459817
	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>457836</b>
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	<b>05/02/2025</b>
What was the (estimated) number of samples that were to be gathered	<b>5</b>
What was the sampling surface area in square feet	<b>1000</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	30200
What was the total volume (cubic yards) remediated	3100
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	30200
What was the total volume (in cubic yards) reclaimed	2900
Summarize any additional remediation activities not included by answers (above)	"Excavation activities were conducted at the Site in accordance with the Work Plan to address the multiple releases of crude oil and produced water. The approved February 4, 2025, Work Plan is included in Appendix C. Laboratory analytical results for all final excavation soil samples indicated all COC concentrations were compliant with the Closure Criteria. Based on the soil sample laboratory analytical results, no further remediation is required. The final excavation backfill is ongoing with material purchased locally and is being recontoured to match pre-existing Site conditions. Excavation of soil has removed impacted soil from the area. XTO believes these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests closure for Incident Numbers nAPP2418043567, nAPP2432147637, nAPP2432531235, & nAPP2502042071."

*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: Ashley McAfee Email: ashley.a.mcafee@exxonmobil.com Date: 05/07/2025
--	--

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 7

Action 459817

**QUESTIONS (continued)**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 459817
	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

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**

CONDITIONS

Action 459817

**CONDITIONS**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 459817
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**CONDITIONS**

Created By	Condition	Condition Date
scwells	None	5/20/2025