



## REMEDIATION CLOSURE REPORT

Property:

**Shell State 1C CTB**

**Unit C, S36, T22S, R32E  
32.354063° N, 103.631131° W  
Lea County, New Mexico  
Facility ID: fAPP2127031415  
NMOCD Incident ID: nAPP2402456040**

April 28, 2025


Ensolum Project No. 03B1417144


Prepared for:

**Oxy USA, Inc.  
PO Box 4324  
Houston, Texas 77210**

**Attn: Wade Dittrich**

Prepared by:

  
\_\_\_\_\_  
Kelly Lowery, GI  
Project Geologist

  
\_\_\_\_\_  
Beaux Jennings  
Associate Principal

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**Shell State 1C CTB**

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**32.354063° N, 103.631131° W**  
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**Facility ID: fAPP2127031415**  
**NMOCD Incident ID: nAPP2402456040**

**Ensolum Project No. 03B1417144**

## 1.0 INTRODUCTION

### 1.1 Site Description and Background

<b>Operator:</b>	Oxy USA, INC.
<b>Site Name:</b>	Shell State 1C CTB
<b>Location:</b>	Unit C, Section 36, Township 22 South, Range 32 East Facility ID: fAPP2127031415 32.354063° N, 103.631131° W Lea County, New Mexico
<b>Property:</b>	New Mexico State Trust Land managed by the New Mexico State Land Office (NMSLO)
<b>Regulatory:</b>	New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On January 23, 2024, Oxy had a release of produced water at the Shell State 1C CTB, hereinafter referred to as the "Site", due to a ball valve being left open on a cut transfer line. Approximately 40 barrels (bbls) of produced water was released onto the ground surface with 2.5 bbls of produced water recovered and 10 bbls of oil released with 2.5 bbls of oil recovered. Oxy subsequently reported the release to the New Mexico EMNRD OCD via a report through the online notice of release (NOR) form on January 24, 2024. The release was assigned Incident Number nAPP2402456040.

The **Topographic Map** depicting the location of the Site is included as **Figure 1**, and the **Site Vicinity Map** is included as **Figure 2** in **Appendix A**.

### 1.2 Project Objective

The primary objective of the closure activities was to reduce chemicals of concern (COC) concentrations in the on-Site soil to be in compliance with the applicable New Mexico EMNRD OCD closure criteria concentrations.

## 2.0 CLOSURE CRITERIA

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. In order to address activities related to exempt oil and gas releases, the New Mexico EMNRD OCD references New Mexico Administrative Code (NMAC) 19.15.29 *Releases*, which establishes investigation and abatement action requirements for sites subject to reporting and/or corrective action. Ensolum, LLC (Ensolum) utilized information provided by Oxy, the general Site characteristics, and information available from the New Mexico Office of the State Engineer (OSE) and the New Mexico EMNRD OCD Imaging database to determine the appropriate closure criteria for the Site.

Supporting documentation and figures associated with the following bullets are provided in **Appendix B**.

- No exploratory water wells were identified within a 0.5-mile radius of the Site on the OSE Water Rights Reporting System (WRRS) database.
  - Due to the unknown depth to groundwater in the 0.5-mile vicinity, a depth to water soil boring (SB01/C-04908-POD1) was installed on December 9, 2024 by West Texas Water Well Service (WTWWS), a licensed driller in the state of New Mexico, and Ensolum personnel. The soil boring was installed on Oxy's Covington A Federal #09 pad approximately 0.18-miles north of the Site to a total depth of 110 feet below ground surface (bgs) and was left open for at least 72-hours to confirm the presence or absence of groundwater. On December 12, 2024, the soil boring was gauged with no groundwater encountered at 110 feet bgs.
- The Site is not located within 300 feet of a New Mexico ENMRD OCD-defined continuously flowing watercourse or significant watercourse.
- The Site is not located within 200 feet of a lakebed, sinkhole, or playa lake.
- The Site is not located within 300 feet of a permanent residence, school, hospital, institution, or church.
- According to the OSE WRSS database, there are no private, domestic freshwater wells used by less than five households for domestic or stock water purposes identified within 500 feet of the Site.
- According to the OSE WRSS database, no freshwater wells have been identified within 1,000 feet of the Site.
- The Site is not located within incorporated municipal boundaries or within a defined municipal freshwater well field covered under a municipal ordinance adopted pursuant to New Mexico Statute Annotated (NMSA) 1978, Section 3-27-3.
- The Site is not located within 300 feet of a wetland.
- Based on information identified on the New Mexico Mining and Minerals Division's Geographical Information System (GIS), Maps, and Mine Data database, the Site is not located within an area overlying a subsurface mine.
- Based on the Karst Occurrence Potential (.kmz) provided by the BLM, the Site is located within a stable area, also referred to as low karst potential.
- The Site is not located within a 100-year floodplain.

Based on the identified siting criteria, cleanup goals for soils remaining in place at the Site include:



CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE (REMEDATION ZONE)			
Minimum depth below any point within horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Method	Limit
>100 feet	Chloride	EPA 300.0 or SM4500 Cl B	20,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	TPH (GRO+DRO)	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

### 3.0 SOIL REMEDIATION ACTIVITIES

On January 23, 2024, Oxy had a release of produced water at the Site due to a ball valve being left open on a cut transfer line. Approximately 40 bbls of produced water was released onto the ground surface with 2.5 bbls of produced water recovered and 10 bbls of oil released with 2.5 bbls of oil recovered.

Due to the Site being located on NMSLO land, an Archeological Records Management System (ARMS) review was required prior to beginning remediation activities. This review would determine if any known cultural properties had been previously identified within the proposed remediation area and if the area had been previously surveyed for cultural resources.

On April 24, 2024, on behalf of Oxy, Beaver Creek Archaeology and Environmental (Beaver Creek) presented their ARMS Review findings to the NMSLO. Their review indicated that the area had required a pedestrian survey be conducted since to ensure no cultural properties were in close vicinity to the Site. No cultural properties were found within the survey area and it was recommended that a finding of No Historic Properties Affected with no further archaeological work be approved for remediation activities to proceed.

On June 20, 2024, Oxy was awarded a positive response ARMS review and approval from NMSLO to proceed with remediation activities with no conditions.

On October 10, 2024, subsequent to excavation activities, Ensolum arrived on-Site to collect 32 composite soil samples from the excavation floor (FS01 through FS32) at depths ranging from 9 to 13 feet bgs, and 26 composite soil samples from 14 locations on the excavation sidewalls (SW01 through SW14) at depths ranging from 0-4 feet, 4-9 feet, 4-13 feet, and 9-13 feet bgs. Based on laboratory analytical data, additional excavation and/or remediation was required.

From January 22 2025 through January 24, 2025, subsequent to additional excavation activities, Ensolum arrived on-Site to collect 27 composite soil samples from the excavation floor (FS01 through FS08, FS10 through FS22, FS27, and FS29 through FS33) at depths ranging from 11 to 17 feet bgs, and 16 composite soil samples from 12 locations on the excavation sidewalls (SW01 through SW12) at depths ranging from 0-4 and 4-15 feet bgs. During this time, the locations of

excavation sidewall SW13 and SW14 were removed due to additional excavation activities. Based on laboratory analytical data, additional excavation and/or remediation was required.

On February 6, 2025, subsequent to additional excavation activities, Ensolum arrived on-Site to collect one composite soil sample from the excavation floor (FS16) at a depth of 18 feet bgs and one composite soil sample from the excavation sidewall (SW16) at a depth of 13-18 feet bgs. Based on laboratory analytical data, no additional excavation and/or remediation was required.

The composite soil samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX), total petroleum hydrocarbons (TPH), gasoline range organics (GRO), diesel range organics (DRO), motor oil/lube oil range organics (MRO), and chloride in accordance with the New Mexico EMNRD OCD Closure Criteria for Soils Impacted by a Release (NMOCD Closure Criteria).

The final excavation area measured approximately 69 feet long and 61 feet wide at its minimum extents and 121 feet long and 117 feet wide at its maximum extents with a depth ranging from 9 to 18 feet bgs.

The lithology encountered during the completion of closure activities consisted of the Pyote and Maljamar Fine Sands, (PU) with fine sand from the surface to 30 inches bgs, and a fine sandy loam from 30 inches bgs to at least 60 inches bgs.

The excavation measured approximately 9,872 square feet in arial extent. A total of approximately 4,733 cubic yards (cy) of soil were excavated from the Site and hauled off for proper disposal at the Lea Land Facility located in Hobbs, New Mexico. A total of approximately 1,463 cy of soil was reclaimed per the 19.15.29.13 NMAC Reclamation Requirements for the top four feet of soil (Reclamation Requirements).

After confirmation sampling was completed, the backfill of the excavation was completed utilizing material purchased locally from the Stacy Mills Pit (Mills Ranch Pit) for soils greater than 4 feet bgs (Remediation Zone) and from the DR PI Topsoil for soils less than 4 feet bgs (Reclamation Zone) and then re-contoured to match pre-existing conditions.

**Figure 3** is a map that identifies approximate soil sample locations and depicts the approximate dimensions of the impacted soil and excavation extent with respect to the release (**Appendix A**). Photographic documentation of the field activities is included in **Appendix C**.

#### 4.0 SOIL SAMPLING PROGRAM

Ensolum's soil sampling program from October 10, 2024, to February 6, 2025, included the collection of a total of 60 composite soil samples from 33 locations from the excavation floor (FS01 through FS33) and 43 composite soil samples from 15 locations from the excavation sidewalls (SW01 through SW14 and SW16). Additionally, one composite soil sample was collected from the backfill material used at the Site for soil in the Remediation Zone (Mills Ranch Pit) on September 30, 2024 and from the backfill material used at the Site for soils in the Reclamation Zone (DR PI Topsoil) on February 6, 2025, prior to use at the Site.

The composite soil samples were collected and placed in laboratory-prepared glassware, labeled/sealed using laboratory-supplied labels and custody seals, and stored on ice in a cooler. The samples were relinquished to Cardinal Laboratories in Hobbs, New Mexico, under proper chain-of-custody procedures.

## 5.0 SOIL LABORATORY ANALYTICAL METHODS

The composite soil samples were analyzed for BTEX following the United States Environmental Protection Agency (EPA) SW-846 Method 8021B, TPH GRO/DRO/MRO following EPA SW-846 Method 8015M/D, and chloride using SM4500Cl-B.

Laboratory analytical results are summarized in **Table 1**, **Table 2**, **Table 3**, and **Table 4** in **Appendix D**. The executed chain-of-custody forms and laboratory data sheets are provided in **Appendix E**.

## 6.0 DATA EVALUATION

Ensolum compared the benzene, total BTEX, TPH-GRO/DRO/MRO, and chloride concentrations to laboratory sample detection limits (SDLs) associated with the soils remaining in place at the Site to the applicable NMOCD Closure Criteria. The final composite soil samples collected from the Remediation Zone were compared to the NMOCD Closure Criteria for Soils Impacted by a Release (Remediation Zone), while the final composite soil samples collected from the Reclamation Zone were compared to the NMOCD Closure Criteria for soils Impacted by a Release (Reclamation Zone).

- Laboratory analytical results indicated benzene concentrations for the soils remaining in place at the Site, and the backfill material did not exceed the laboratory SDLs or the applicable NMOCD Closure Criteria of 10 milligrams per kilogram (mg/kg).
- Laboratory analytical results indicated that total BTEX concentrations for the soils remaining in place at the Site and the backfill material did not exceed the laboratory SDLs or the applicable NMOCD Closure Criteria of 50 mg/kg.
- Laboratory analytical results indicated that the combined TPH-GRO/DRO concentrations for soils remaining in place at the Site in the Remediation Zone did not exceed the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 1,000 mg/kg for depth to groundwater >100 feet.
- Laboratory analytical results indicated that the combined TPH-GRO/DRO/MRO concentrations for the soils remaining in place at the Site in the Remediation Zone did not exceed the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 2,500 mg/kg for depth to groundwater >100 feet.
- Laboratory analytical results indicated chloride concentrations for soils remaining in place at the Site in the Remediation Zone did not exceed the laboratory SDLs and/or applicable NMOCD Closure Criteria of 20,000 mg/kg for depth to groundwater >100 feet.
- Laboratory analytical results indicated combined TPH-GRO/DRO/MRO concentrations for the soils remaining in place at the Site in the Reclamation Zone and the backfill materials did not exceed the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 100 mg/kg for depth to groundwater ≤50 feet.
- Laboratory analytical results indicated chloride concentrations for the soils remaining in place at the Site in the Reclamation Zone and the backfill materials did not exceed the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 600 mg/kg for depth to groundwater ≤50 feet.

Laboratory analytical results are summarized in **Table 1**, **Table 2**, **Table 3**, and **Table 4** in **Appendix D**.

## 7.0 RECLAMATION AND RE-VEGETATION

The release occurred in pasture, and as such, a reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet of the off-pad area in the Reclamation Zone that was impacted by the release per 19.15.29.13.D (1) NMAC Reclamation Requirements for the top 4 feet of areas that will be reclaimed following remediation. The following Reclamation Plan addresses reclamation of the pasture area: The soil in the vicinity of the release includes: PU with fine sand from the surface to 30 inches bgs, and a fine sandy loam from 30 inches bgs to at least 60 inches bgs;

- The excavation was backfilled with locally sourced topsoil from the DR PI Topsoil and recontoured to match the surrounding grade;
- The backfilled areas will be seeded utilizing a weed-free seed mix designed by the NMSLO to meet reclamation standards for this region, which will be Blow Sand/Deep Sand (BS/DS) Sites Seed Mixture as described in the NMSLO Revegetation Guidelines Handbook for Southeastern New Mexico, dated 2018;
- The following Revegetation Procedure will be implemented:
  - For flat or gently sloping areas with slopes less than or equal to 3H:1V;
    - Soil Amendments: Apply composted manure or similar at the rate of 30.0 air dry tons/acre;
    - Fertilize: Type 2;
    - Mulch – Grass Hay mulch applied at 2.0 tons/acre;
    - Prepare the seedbed and incorporate mulch, fertilizer, and soil amendments:
      - Scarify
      - Disc (thoroughly mix mulch, fertilizer, and soil amendments in top 6-8 inches of soil before proceeding);
    - Drill Seed – use rangeland drill and apply Drill box seed to 0.5-0.75 inch depth, apply small seed to surface and lightly cover with drag chains or packer wheels or equal;
    - Mulch – Grass Hay mulch applied at 2.0 tons/acre;
    - Crimp;
    - Tackify – tackify to minimize risk of mulch blowing and to hold soil and mulch in place until vegetation begins to establish, and;
    - Wind Fence – Install wind fence.
- Backfilling of the excavation has already been completed;
- Seeding is anticipated to be completed in the spring/summer when temperatures and precipitation are most conducive for vegetation growth. In general, seeding should occur approximately one month after the last frost in the Spring up until approximately one month prior to the first fall frost. NMSLO has recognized the optimal time to seed is between July and early September, which will be adhered to for this Site; and
- Annual inspections (at a minimum) will take place on the location until revegetation is consistent with local natural vegetation density. The Site will be inspected the following Spring/Fall to assess the success of regrowth. If necessary, an additional application of the NMSLO-approved pure live seed mixture will be applied as well, and any needed BMPs will be installed to support growth and limit erosion.

## 8.0 FINDINGS AND RECOMMENDATION

- On January 23, 2024, Oxy had a release of produced water at the Site due to a ball valve being left open on a cut transfer line. Approximately 40 bbls of produced water was released onto the ground surface with 2.5 bbls of produced water recovered and 10 bbls of oil released with 2.5 bbls of oil recovered.
- Ensolum's soil sampling program from October 10, 2024, to February 6, 2025, included the collection of a total of 60 composite soil samples from 33 locations from the excavation floor (FS01 through FS33) and 43 composite soil samples from 15 locations from the excavation sidewalls (SW01 through SW14 and SW16). Additionally, one composite soil sample was collected from the backfill material used at the Site for soil in the Remediation Zone (Mills Ranch Pit) on September 30, 2024 and from the backfill material used at the Site for soils in the Reclamation Zone (DR PI Topsoil) on February 6, 2025, prior to use at the Site.
- The primary objective of the closure activities was to reduce COC concentrations in the on-Site soil to be in compliance with applicable NMOCD Closure Criteria for Soils Impacted by a Release using the New Mexico EMNRD OCD's NMAC 19.15.29 Releases as guidance.
- The final excavation area measured approximately 69 feet long and 61 feet wide at its minimum extents and 121 feet long and 117 feet wide at its maximum extents with a depth ranging from 9 to 18 feet bgs.
- Based on laboratory analytical results, the final composite soil samples within the impacted area and the backfill materials did not exhibit benzene, total BTEX, TPH GRO/DRO/MRO, or chloride concentrations above the applicable NMOCD Closure Criteria.
- After confirmation sampling was completed, the backfill of the excavation was completed utilizing material purchased locally from the Stacy Mills Pit (Mills Ranch Pit) for soils greater than 4 feet bgs (Remediation Zone) and from the DR PI Topsoil for soils less than 4 feet bgs (Reclamation Zone) and then re-contoured to match pre-existing conditions.

**Based on field observations and laboratory analytical results, no additional investigation or corrective action appears warranted at this time.**

## 9.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

### 9.1 Standard of Care

Ensolum's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Ensolum makes no warranties, express or implied, as to the services performed hereunder. Additionally, Ensolum does not warrant the work of third parties supplying information used in the report (e.g., laboratories, regulatory agencies, or other third parties). This scope of services was performed in accordance with the scope of work agreed with the client, as detailed in our proposal.

### 9.2 Limitations

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of

work and it should be noted that this information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, or not present during these services, and Ensolum cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during the investigation. Environmental conditions in other areas or portions of the Site may vary from those encountered at actual sample locations. Ensolum's findings and recommendations are based solely upon data available to Ensolum at the time of these services.

### **9.3 Reliance**

This report has been prepared for the exclusive use of Oxy USA Inc., and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of Oxy USA Inc. and Ensolum. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions, and limitations stated in the Closure Report and Ensolum's Master Services Agreement. The limitation of liability defined in the agreement is the aggregate limit of Ensolum's liability to the client.

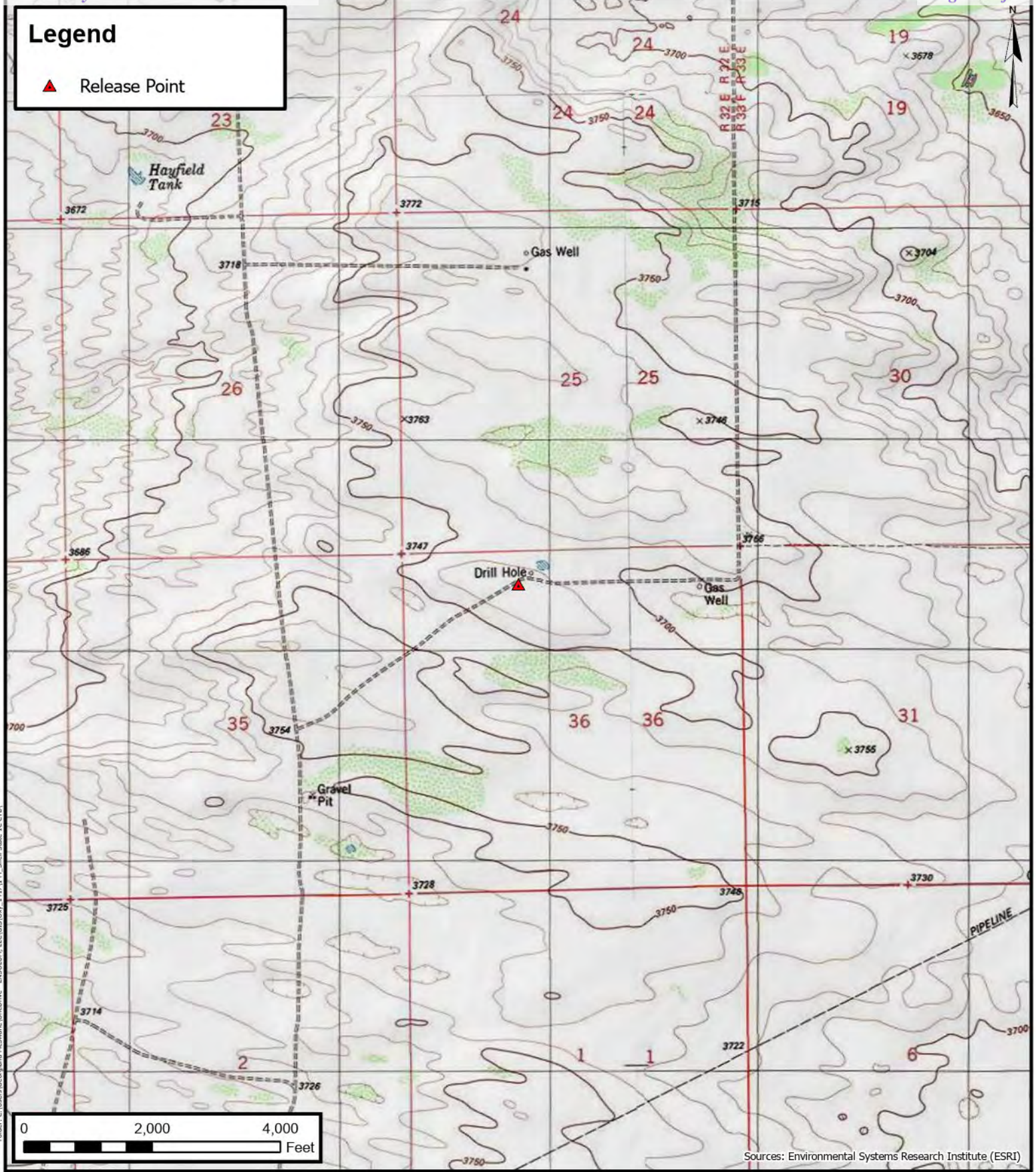


## APPENDIX A

### Figures

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## Topographic Map

Oxy USA Inc.  
Shell State 1C CTB  
32.354063° N, 103.631131° W  
Lea County, New Mexico

PROJECT NUMBER: 03B1417144

FIGURE

1



**Legend** Release Point**Site Vicinity Map**

Oxy USA Inc.  
Shell State 1C CTB  
32.354063° N, 103.631131° W  
Lea County, New Mexico

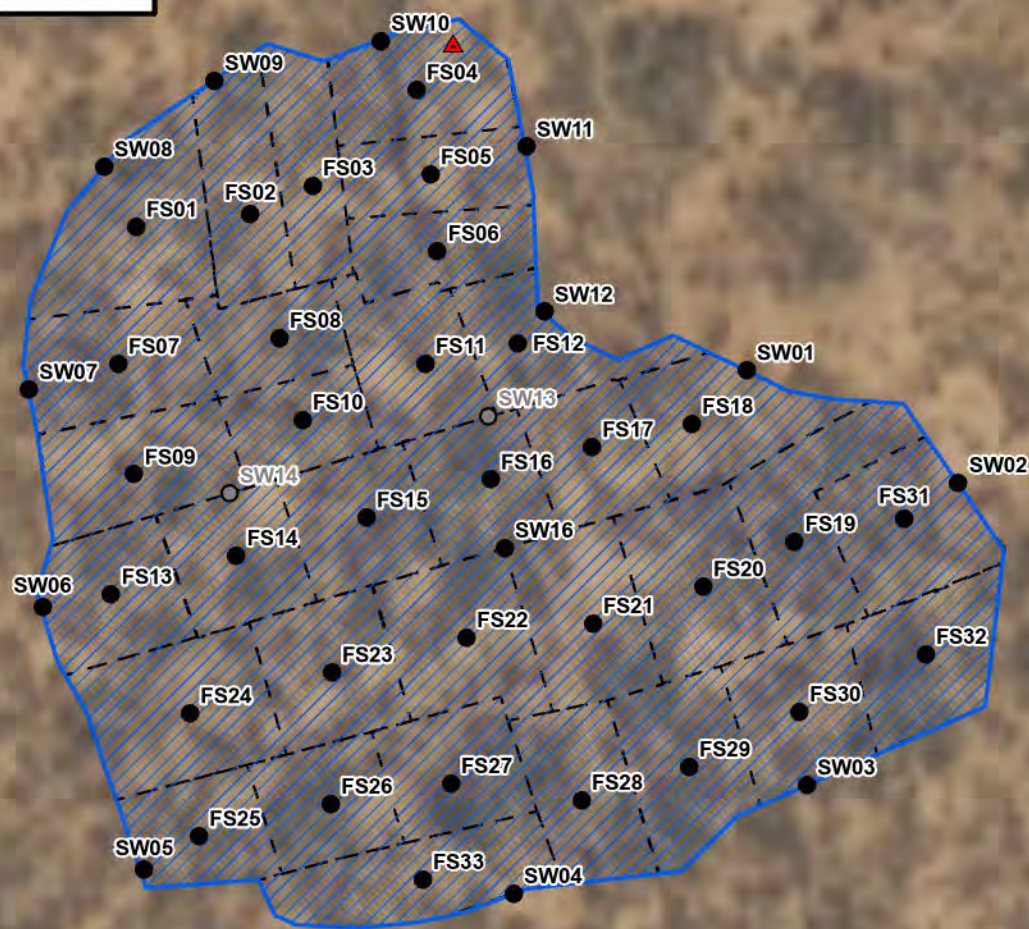
PROJECT NUMBER: 03B1417144

**FIGURE**  
**2**



# Legend

- ▲ Release Point
- Confirmation Soil Sample Location
- Confirmation Soil Sample Location Removed by Excavation
- ▨ Excavation Extent
- - - Composite Soil Sample
- - - Grid Boundary



0 25 50  
Feet

Sources: Environmental Systems Research Institute (ESRI)



## Site Map

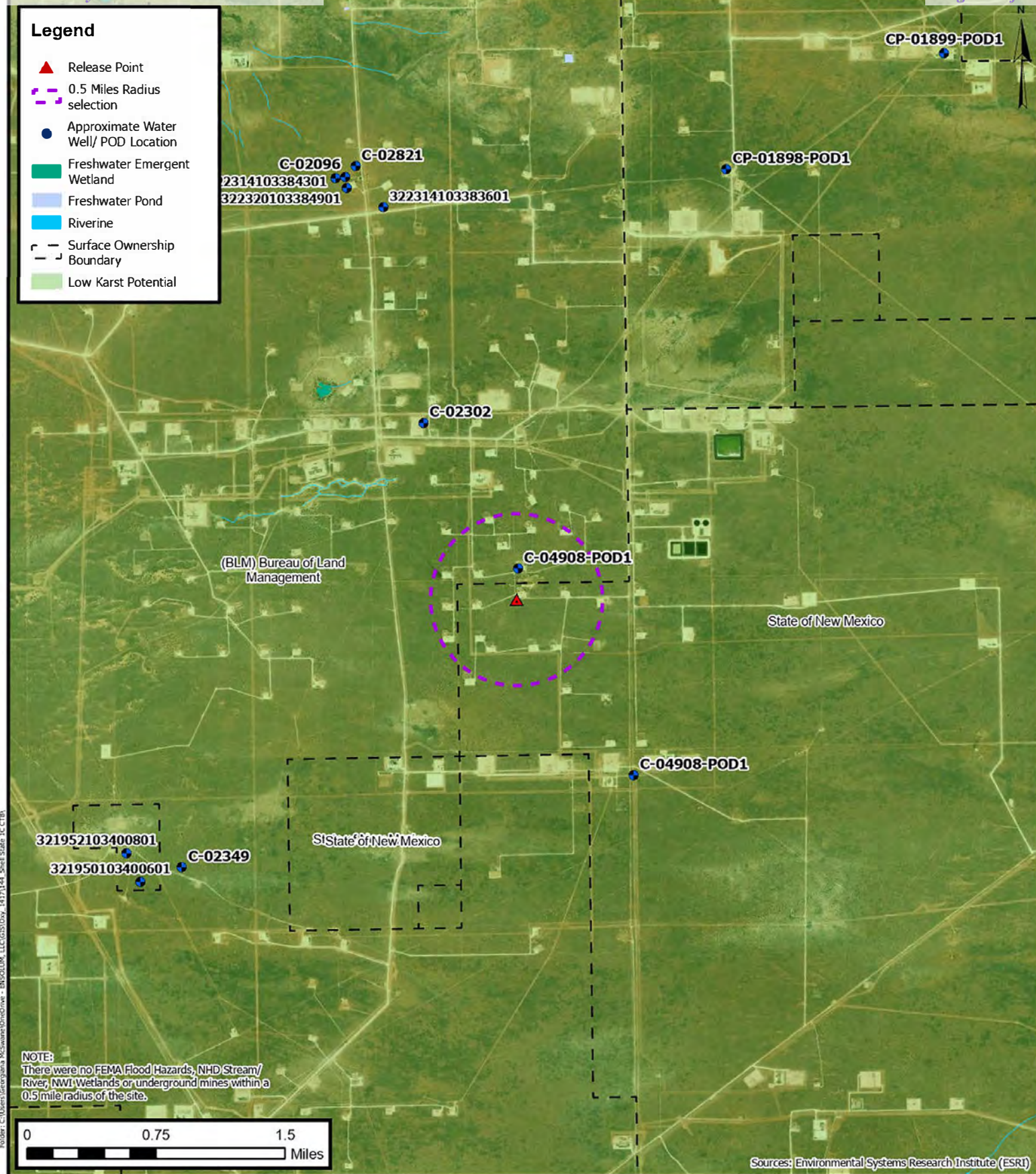
Oxy USA Inc.  
Shell State 1C CTB  
32.354063° N, 103.631131° W  
Lea County, New Mexico

PROJECT NUMBER: 03B1417144

FIGURE

3





## Closure Criteria Map

Oxy USA Inc.  
Shell State 1C CTB  
32.354063° N, 103.631131° W  
Lea County, New Mexico

PROJECT NUMBER: 03B1417144

**FIGURE**

**4**



## APPENDIX B

### Supporting Documentation

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**Kelly Lowery**

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**From:** Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>  
**Sent:** Friday, April 19, 2024 10:41 AM  
**To:** Kelly Lowery  
**Cc:** Wade Dittrich; Tyson Pierce; Beaux Jennings; Bratcher, Michael, EMNRD  
**Subject:** Re: [EXTERNAL] Extension Request: Shell State 1C CTB (Incident ID: nAPP2402456040)

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

Good morning Kelly,

Thank you for the correspondence. Your 90-day time extension request is approved. Remediation Due date has been updated to July 22, 2024.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

The OCD requires a copy of all correspondence relative to remedial activities be included in all proposals and/or final closure reports. Correspondence required to be included in reports may include, but not limited to, notifications for liner inspections, sample events, spill/release/fire, and request for time extensions or variances.

Regards,

**Nelson Velez** • Environmental Specialist - Adv  
Environmental Bureau | EMNRD - Oil Conservation Division  
1000 Rio Brazos Road | Aztec, NM 87410  
(505) 469-6146 | [nelson.velez@emnrd.nm.gov](mailto:nelson.velez@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>



---

**From:** Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>  
**Sent:** Thursday, April 18, 2024 4:34 PM  
**To:** Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>  
**Cc:** Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>  
**Subject:** FW: [EXTERNAL] Extension Request: Shell State 1C CTB (Incident ID: nAPP2402456040)

---

**From:** Kelly Lowery <klowery@ensolum.com>  
**Sent:** Thursday, April 18, 2024 3:19 PM  
**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>

**Cc:** Dittrich, John W <Wade\_Dittrich@oxy.com>; Pierce, Tyson (Legacy Safety & Consulting LLC) <tyson\_pierce@oxy.com>; Beaux Jennings <bjennings@ensolum.com>

**Subject:** [EXTERNAL] Extension Request: Shell State 1C CTB (Incident ID: nAPP2402456040)

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

Good afternoon,

On behalf of Oxy USA Inc, Ensolum, LLC would like to request a 90-day extension for the Shell State 1C CTB (Incident ID: nAPP2402456040). The release occurred on 1/23/2024, and after conducting an initial Site assessment of the area, it was determined that delineation and excavation of impacted and/or waste containing soils was needed.

Because this Site is on State Land, the remediation work needed at the Site requires an ARMs survey through the State Land Office, which is currently pending. Following completion of the ARMs survey, remediation activities will resume.

Thank you,



**Kelly Lowery, GIT**

Project Geologist

214-733-3165

**Ensolum, LLC**





**Kelly Lowery**

---

**From:** Raina Hanley <RHanley@bcarch.org>  
**Sent:** Thursday, June 20, 2024 10:36 AM  
**To:** Kelly Lowery; Beaux Jennings; Wade Burns; Marc Seamands  
**Subject:** Fw: Remediation negative survey Report submission for Ensolum- NMCRIS Activity 155399 (BCA24-1718)

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

---

**From:** Curry, Anne R. <acurry@slo.state.nm.us>  
**Sent:** Thursday, June 20, 2024 9:13 AM  
**To:** Raina Hanley <RHanley@bcarch.org>; CRO Info <croinfo@slo.state.nm.us>  
**Subject:** RE: Remediation negative survey Report submission for Ensolum- NMCRIS Activity 155399 (BCA24-1718)

Good morning Raina,

Thank you for the submission of the attached Cover Sheet. Since the proposed remediation activities will take place in an area that has been covered by archaeological survey (NMCRIS 155399), Ensolum is free to move forward with remediation. Please reach out if you have additional questions-



**Anne Curry**

*Archaeologist*  
*Cultural Resources Office*  
Office: 505.827.1276  
Cell: 505.469.5582

New Mexico State Land Office  
310 Old Santa Fe Trail



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[nmstatelands.org](http://nmstatelands.org)

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---

**From:** Raina Hanley <RHanley@bcarch.org>  
**Sent:** Wednesday, April 24, 2024 4:34 PM  
**To:** CRO Info <croinfo@slo.state.nm.us>  
**Subject:** [EXTERNAL] Remediation negative survey Report submission for Ensolum- NMCRIS Activity 155399 (BCA24-1718)

Good Afternoon,

Attached please find the negative report NIAF for NMCRIS Activity 155399 and the associated cultural resources cover sheet for the following project for Ensolum on behalf of Oxy USA for proposed remediation activities.

- A Class III Cultural Resource Inventory for Oxy USA's Shell State 1C CTB Remediation in Lea County, New Mexico

The NIAF materials were submitted through NMCRIS, but the NIAF form itself was not. Please let me know if you would like to open the project so I can upload the PDF version of the information onto NMCRIS.

Thank you!  
Raina

**Raina Hanley**  
*Chief Operating Officer*

Beaver Creek Archaeology & Environmental  
1632 Capitol Way  
Bismarck, ND 58501  
Ph: (701) 663-5521 | Fx: (701) 663-5589

Beaver Creek Archaeology & Environmental  
712 West Quay Avenue  
Artesia, NM 88210  
Ph: (575) 746-6142 | Fx: (701) 663-5589



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*The information contained in this message may be privileged and confidential and protected from disclosure. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify me immediately by replying to this message and deleting it from your computer.*





Stephanie Garcia Richard, Commissioner of Public Lands  
State of New Mexico

## NMSLO Cultural Resources Cover Sheet Exhibit

**NMCRIS Activity Number:**

(if applicable)

**Exhibit Type** (select one)

**ARMS Inspection/Review** - Summarize the results (select one):

- (A) The entire area of potential effect or project area has been previously surveyed to current standards and **no cultural properties** were found within the survey area.
- (B) The entire area of potential effect or project area has been previously surveyed to current standards and **cultural properties were found** within the survey area.
- (C) The entire area of potential effect or project area has **not** been previously surveyed or **has not been surveyed** to current standards. A complete archaeological survey will be conducted and submitted for review.

**Archaeological Survey**

**Findings:**

**Negative** - No further archaeological review is required.

**Positive** - Have avoidance and protection measures been devised? Select one:

**Comments:**

**Project Details:**

NMSLO Lease Number (if available):

Cultural Resources Consultant:

Project Proponent (Applicant):

Project Title/Description:

**Project Location:**

County(ies):

PLSS/Section/Township/Range):

---

**For NMSLO Agency Use Only:**

NMSLO Lease Number:

Acknowledgment-Only:

Lease Analyst:

Date Exhibit Routed to Cultural Resources Office:

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*No person may alter the wording of the questions or layout of the cover sheet. The completion of this cover sheet by itself does not authorize anyone to engage in new surface disturbing activity before the review and approvals required by the Cultural Properties Protections Rule.*

Form Revised 12 22

**Kelly Lowery**

---

**From:** Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>  
**Sent:** Friday, July 19, 2024 3:05 PM  
**To:** Kelly Lowery  
**Cc:** Wade Dittrich; Tyson Pierce; Beaux Jennings; Bratcher, Michael, EMNRD  
**Subject:** Re: [EXTERNAL] Extension Request - Shell State 1C CTB (Incident ID: nAPP2402456040)

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

Good afternoon Kelly,

Thanks for the inquiry. Your 90-day time extension request is hereby approved. Remediation Due has been updated to October 21, 2024.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

The OCD requires a copy of all correspondence relative to remedial activities be included in all proposals and/or final closure reports. Correspondence required to be included in reports may include, but not limited to, notifications for liner inspections, sample events, spill/release/fire, and request for time extensions or variances.

Regards,

**Nelson Velez** • Environmental Specialist - Adv  
Environmental Bureau | EMNRD - Oil Conservation Division  
1000 Rio Brazos Road | Aztec, NM 87410  
(505) 469-6146 | [nelson.velez@emnrd.nm.gov](mailto:nelson.velez@emnrd.nm.gov)  
<http://www.emnrd.nm.gov/oed>



---

**From:** Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>  
**Sent:** Friday, July 19, 2024 1:53 PM  
**To:** Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>  
**Cc:** Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>  
**Subject:** FW: [EXTERNAL] Extension Request - Shell State 1C CTB (Incident ID: nAPP2402456040)

---

**From:** Kelly Lowery <klowery@ensolum.com>  
**Sent:** Friday, July 19, 2024 1:50 PM  
**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>

**Cc:** Dittrich, John W <Wade\_Dittrich@oxy.com>; Pierce, Tyson (Legacy Safety & Consulting LLC) <tyson\_pierce@oxy.com>; Beaux Jennings <bjennings@ensolum.com>

**Subject:** [EXTERNAL] Extension Request - Shell State 1C CTB (Incident ID: nAPP2402456040)

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

Good afternoon,

On behalf of Oxy USA, Inc, Ensolum, LLC would like to request a 90-day extension for the Shell State 1C CTB (Incident ID: nAPP2402456040). The release occurred on 1/23/2024, and after conducting an initial Site Assessment of the area, it was determined that delineation and excavation of impacted and/or waste containing soils was needed.

This release occurred on NMSLO land, and as such, required an ARMs review prior to beginning any remediation and/or delineation activities per the requirement of NMSLO's ECO department. Ensolum began working in conjunction with Beaver Creek Archeology, a New Mexico permitted consultant, on March 26, 2024 to have this ARMs review completed and reviewed by the NMSLO, and after many months of back and forth with the State, was finally awarded an approval and acknowledgement from NMSLO of the review with no conditions on June 20, 2024.

Initial delineation activities at the Site have been delayed due to scheduling challenges with personnel and contractors. We respectfully ask that the OCD grants us this 90-day extension for future sampling and subsequent reporting.

Thank you and have a great day,



**Kelly Lowery, GIT**

Project Geologist

214-733-3165

**Ensolum, LLC**





## United States Department of the Interior

### BUREAU OF LAND MANAGEMENT

Carlsbad Field Office  
620 E. Greene St.  
Carlsbad, NM 88220-6292

In Reply Refer To:  
3162.4 (NM-080)  
NMNM002379

September 18, 2024

NM Office of the State Engineer  
1900 W. Second St.  
Roswell, NM 88201

Re: COVINGTON A FEDERAL 9  
Sec 25, TS 22S, RE 32E  
Lea County, New Mexico

To Whom It May Concern:

The above well location and the immediate area mentioned above requires advanced soil boring to take place at approximately 110 feet below ground surface. The boring will be secured and left open for 72 hours at which time Oxy USA, Inc will assess for the presence or absence of groundwater. Temporary PVC well material will be placed to total depth of the boring and secured at the surface. If water is encountered at any point during the boring, installation of the soil boring will be plugged using Portland Type 1/11 neat cement less than 6.0 gallons of water per 94lb sack. If no water is encountered, then the soil boring will be plugged. The Bureau of Land Management (landowner) authorizes the access of the area to accomplish depth to groundwater determination of this site.

If you have any questions contact Crisha Morgan, at 575-234-5987.

Sincerely,

**CRISHA MORGAN** Digitally signed by CRISHA MORGAN  
Date: 2024.09.18 09:15:27 -06'00'

Crisha A. Morgan  
Certified Environmental Protection Specialist

Well Name: COVINGTON A FEDERAL	Well Location: T22S / R32E / SEC 25 / SESW / 32.356796 / -103.630494	County or Parish/State: LEA / NM
Well Number: 09	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM2379	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002532036	Operator: OXY USA INCORPORATED	

Notice of Intent

Sundry ID: 2810983

Type of Submission: Notice of Intent	Type of Action: Other
Date Sundry Submitted: 09/09/2024	Time Sundry Submitted: 12:52
Date proposed operation will begin: 10/09/2024	

**Procedure Description:** Oxy USA, Inc. (Oxy) requests to advance a soil boring to a depth of approximately 110 feet below ground surface for determination of regional groundwater depth. The soil boring (proposed location 32.356725, -103.630893) will be located on the Oxy Covington A Federal #009 well pad (32.3568, -103.6305) north of the Shell State 1C CTB (Incident ID:nAPP2402456040) Site (GPS Coordinates 32.354063, -103.631131) on BLM surface. The soil boring will be left open for approximately 72 hours to allow for the slow infill of groundwater, if any. Following the 72 hour waiting period, Oxy will assess the boring utilizing a water level meter to confirm the presence or absence and depth to groundwater in the soil boring. Following the 72 hour waiting period, the soil boring will be backfilled following the approved New Mexico Office of the State Engineer plugging procedures. A site map and kmz depicting the location of the Site and the proposed soil boring location are included with this Form 3160-5.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

- DTW\_Proposed\_Boring\_Map\_20240909124343.pdf
- Form\_3160\_5\_\_\_Shell\_State\_1C\_CTB\_20240909124343.pdf
- Shell\_State\_1C\_CTB\_DTW\_Proposed\_Boring\_20240909124343.kmz

Well Name: COVINGTON A FEDERAL

Well Location: T22S / R32E / SEC 25 / SESW / 32.356796 / -103.630494

County or Parish/State: LEA / NM

Well Number: 09

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM2379

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002532036

Operator: OXY USA INCORPORATED

Conditions of Approval

Specialist Review

20240918\_COVINGTON\_A\_FEDERAL\_9\_St\_Engineer\_Office\_drilling\_approval\_20240918091613.pdf

Operator

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

Operator Electronic Signature: WADE DITTRICH

Signed on: SEP 09, 2024 12:45 PM

Name: OXY USA INCORPORATED

Title: Environmental Advisor

Street Address: 5 GREENWAY PLAZA SUITE 110

City: HOUSTONState: TX

Phone: (575) 390-2828

Email address: WADE\_DITTRICH@OXY.COM

Field

Representative Name:

Street Address:

City:State:Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CRISHA A MORGAN

BLM POC Title: Environmental Protection Specialist

BLM POC Phone: 5752345987

BLM POC Email Address: camorgan@blm.gov

Disposition: Approved

Disposition Date: 09/18/2024

Signature: CRISHA A. MORGAN



Elizabeth K. Anderson, P.E.  
State Engineer



Roswell Office  
1900 WEST SECOND STREET  
ROSWELL, NM 88201

**STATE OF NEW MEXICO  
OFFICE OF THE STATE ENGINEER**

Trn Nbr: 770626  
File Nbr: C 04908

Nov. 08, 2024

WADE DITTRICH  
OXY USA INC.  
P.O. BOX 4294  
HOUSTON, TX 77210

Greetings:

Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

- \* If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.
- \* If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.
- \* The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.
- \* This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website [www.ose.state.nm.us](http://www.ose.state.nm.us).

Sincerely,

A handwritten signature in black ink that reads "Vanessa Clements".

Vanessa Clements  
(575) 622-6521

Enclosure

explore

Elizabeth K. Anderson, P.E.  
State Engineer



Roswell Office  
1900 WEST SECOND STREET  
ROSWELL, NM 88201

**STATE OF NEW MEXICO  
OFFICE OF THE STATE ENGINEER**

Trn Nbr: 770626  
File Nbr: C 04908

Nov. 08, 2024

KELLY LOWERY  
ENSOLUM, LLC  
601 N. MARIENFIELD ST. STE 400  
MIDLAND, TX 79701

Greetings:

Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

- \* If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.
- \* If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.
- \* The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.
- \* This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website [www.ose.state.nm.us](http://www.ose.state.nm.us).

Sincerely,

A handwritten signature in cursive script that reads "Vanessa Clements".

Vanessa Clements  
(575) 622-6521

Enclosure

explore



**4. SPECIFIC REQUIREMENTS:** The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

<p><b>Exploratory*:</b> Is proposed well a future public water supply well? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> NO If Yes, an application must be filed with NMED-DWB, concurrently. <input type="checkbox"/> Include a description of any proposed pump test, if applicable.</p> <p><b>Monitoring*:</b> <input type="checkbox"/> Include the reason for the monitoring well, and, <input type="checkbox"/> The duration of the planned monitoring.</p>	<p><b>Pollution Control and/or Recovery:</b> <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for the pollution control or recovery operation. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The annual diversion amount. <input type="checkbox"/> The annual consumptive use amount. <input type="checkbox"/> The maximum amount of water to be diverted and injected for the duration of the operation. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> The method of measurement of water produced and discharged. <input type="checkbox"/> The source of water to be injected. <input type="checkbox"/> The method of measurement of water injected. <input type="checkbox"/> The characteristics of the aquifer. <input type="checkbox"/> The method of determining the resulting annual consumptive use of water and depletion from any related stream system. <input type="checkbox"/> Proof of any permit required from the New Mexico Environment Department. <input type="checkbox"/> An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.</p>	<p><b>Construction De-Watering:</b> <input type="checkbox"/> Include a description of the proposed dewatering operation. <input type="checkbox"/> The estimated duration of the operation. <input type="checkbox"/> The maximum amount of water to be diverted. <input type="checkbox"/> A description of the need for the dewatering operation, and, <input type="checkbox"/> A description of how the diverted water will be disposed of.</p> <p><b>Ground Source Heat Pump:</b> <input type="checkbox"/> Include a description of the geothermal heat exchange project. <input type="checkbox"/> The number of boreholes for the completed project and required depths. <input type="checkbox"/> The time frame for constructing the geothermal heat exchange project, and, <input type="checkbox"/> The duration of the project. <input type="checkbox"/> Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.</p>	<p><b>Mine De-Watering:</b> <input type="checkbox"/> Include a plan for Mine De-Watering, that includes the following: <input type="checkbox"/> A description of the need for mine dewatering. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The source(s) of the water to be diverted. <input type="checkbox"/> The geohydrologic characteristics of the aquifer(s). <input type="checkbox"/> The maximum amount of water to be diverted per annum. <input type="checkbox"/> The maximum amount of water to be diverted for the duration of the operation. <input type="checkbox"/> The quality of the water. <input type="checkbox"/> The method of measurement of water diverted. <input type="checkbox"/> The recharge of water to the aquifer. <input type="checkbox"/> Description of the estimated area of hydrologic effect of the project. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. <input type="checkbox"/> A description of the methods employed to estimate effects on surface water rights and underground water rights. <input type="checkbox"/> Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.</p>
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(\* if exploration or monitoring drilling activity is required by NMED, then you must also submit the NMED Work Plan)

#### ACKNOWLEDGEMENT

I, We (name of applicant(s)), Kelly Lowery, Wade Dittrich

Print Name(s)

affirm that the foregoing statements are true to the best of (my,our) knowledge and belief.

Kelly Lowery  
Applicant Signature

Wade Dittrich  
Applicant Signature

#### ACTION OF THE STATE ENGINEER

This application is:  
☒ approved ☐ partially approved ☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 8th day of November 2024, for the State Engineer,

Elizabeth K. Anderson, P.E

State Engineer

By: K. Parekh  
Signature

Kashyap Parekh

Print

Title:  
Print

Water Resources Manager I



FOR USE INTERNAL USE

Application for Permit, Form WR-07 Version 10/02/2024

File No.: C-4908

Trm No.: 770626

Page 3 of 3

NEW MEXICO STATE ENGINEER OFFICE  
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL

- 17-16 Construction of a water well by anyone without a valid New Mexico Well Driller License is illegal, and the landowner shall bear the cost of plugging the well by a licensed New Mexico well driller. This does not apply to driven wells, the casing of which does not exceed two and three-eighths inches outside diameter.
- 17-1A Depth of the well shall not exceed the thickness of the valley fill.
- 17-4 No water shall be appropriated and beneficially used under this permit.
- 17-6 The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable and approved by the state engineer. The well shall be plugged with an office of the state engineer approved sealant for use in the plugging of non-artesian wells. The well driller shall cut the casing off at least four (4) feet below ground surface and fill the open hole with at least two vertical feet of approved sealant. The driller must fill or cover any open annulus with sealant. Once the sealant has cured, the well driller or well owner may cover the seal with soil. A Plugging Report for said well shall be filed with the Office of the State Engineer in a District Office within 30 days of completion of the plugging.

Trn Desc: C 04908 POD1

File Number: C 04908

Trn Number: 770626

page: 1



**NEW MEXICO STATE ENGINEER OFFICE  
PERMIT TO EXPLORE**

**SPECIFIC CONDITIONS OF APPROVAL (Continued)**

- 17-R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.
- LOG The Point of Diversion C 04908 POD1 must be completed and the Well Log filed on or before 11/08/2025.

IT IS THE PERMITTEE'S RESPONSIBILITY TO OBTAIN ALL AUTHORIZATIONS AND PERMISSIONS TO DRILL ON PROPERTY OF OTHER OWNERSHIP BEFORE COMMENCING ACTIVITIES UNDER THIS PERMIT.

**ACTION OF STATE ENGINEER**

Notice of Intention Rcvd:	Date Rcvd. Corrected:
Formal Application Rcvd: 10/31/2024	Pub. of Notice Ordered:
Date Returned - Correction:	Affidavit of Pub. Filed:

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 08 day of Nov A.D., 2024

Elizabeth K. Anderson, P.E., State Engineer

By:

K. Parekh  
KASHYAP PAREKH



Trn Desc: C 04908 POD1

File Number: C 04908

Trn Number: 770626

**MICHELLE LUJAN GRISHAM**  
GOVERNOR



**ELIZABETH K. ANDERSON, P.E.**  
STATE ENGINEER

**State of New Mexico**  
**Office of the State Engineer**

**DISTRICT 2 OFFICE**

October 31, 2024

Oxy USA Inc.  
P.O. Box 4294  
Denver, CO 80206

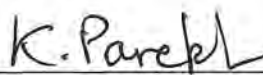
RE: Well Plugging Plan of Operations for well No. C-4908-POD1

Greetings:

Enclosed is your copy of the Well Plugging Plan of Operations for the above referenced well subject to the attached Conditions of Approval. The proposed method of operation is found to be acceptable and in accordance with the Rules and Regulations Governing Well Driller Licensing; Construction, Repair and Plugging of Wells 19.27.4 NMAC adopted June 30, 2017 by the State Engineer. subject to the attached Conditions of Approval.

Within 30 days after the well is plugged, the well driller is required to file a complete plugging record with the OSE and the permit holder.

Sincerely,

  
Kashyap Parekh  
Water Resources Manager I

1900 WEST SECOND STREET, ROSWELL, NM 88201  
(575) 622/6521 FAX (575) 623-8559

[WWW.OSE.STATE.NM.GOV](http://WWW.OSE.STATE.NM.GOV)



## Office of the State Engineer State of New Mexico

### DISTRICT 2 OFFICE

1900 West Second St.  
Roswell, New Mexico 88201  
Phone: (575) 622-6521  
Fax: (575) 623- 8559

Applicant has identified a well, listed below, to be plugged. West Texas Water Well Service (WD-1184) will perform the plugging.

Permittee: Oxy USA Inc.  
NMOSE Permit Number: C-4908-POD1

NMOSE File	Casing diameter (inches)	Well depth (feet bgl)	Approximate static water level (feet bgl)	Latitude	Longitude
C-4908-POD1	6.0 (Borehole)	110.0	Unknown	32° 21' 24.2094"	103° 37' 51.2034"

### **Specific Plugging Conditions of Approval for Well located in Lea County.**

1. Water well drilling and well drilling activities, including well plugging, are regulated under 19.27.4 NMAC, which requires any person engaged in the business of well drilling within New Mexico to obtain a Well Driller License issued by the New Mexico Office of the State Engineer (NMOSE). Therefore, the firm of a New Mexico licensed Well Driller shall perform the well plugging.
2. Theoretical volume of sealant required for abandonment is approximately 161.5 gallons. Total minimum volume of necessary sealant shall be calculated upon sounding the actual pluggable depth of well, which is estimated at 110.0 feet below ground surface (b.g.s.).
3. A Type I/II Portland cement mixed with 5.2 to 6.0 gallons of fresh water per 94-lb sack of cement is approved for the plugging the well.
4. Sealant shall be placed by pumping through a tremie pipe extended to near well bottom and kept below top of the slurry column as the well is plugged from bottom-upwards in a manner



that displaces the standing water column upwards from below. Tremie pipe may be pulled as necessary to retain minimal submergence in the advancing column of sealant.

5. Should cement "shrinks-back" occur in the well, use of a tremie for topping off is required for cement placement deeper than 20 feet below land surface or if water is present in the casing. The approved sealant for topping off is identified in condition 3. of these Specific Conditions of Approval.
6. Any open annulus encountered surrounding the casing shall also be sealed by the placement of the approved sealant. When plugging shallow wells with no construction or environmental concerns, and if the well record on a well to be plugged shows a proper 20-foot annular seal, a plugging plan can propose the use of clean fill material to a nominal 30 feet bgs, then placing an OSE approved sealant to surface. Lacking that information, we would require an excavation of at least 2-feet which shall then be filled in its entirety with sealant to surface.
7. Should the NMED, or another regulatory agency sharing jurisdiction of the project authorize, or by regulation require a more stringent well plugging procedure than herein acknowledged, the more-stringent procedure should be followed. This, in part, includes provisions regarding pre-authorization to proceed, contaminant remediation, inspection, pulling/perforating of casing, or prohibition of free discharge of any fluid from the borehole during or related to the plugging process.
8. NMOSE witnessing of the plugging of the soil boring hole will not be required.
9. Any deviation from this plan must obtain an approved variance from this office prior to implementation.
10. A Well Plugging Record itemizing actual abandonment process and materials used shall be filed with the State Engineer within 30 days after completion of well plugging. For the plugging record, please resurvey coordinate location for well and note coordinate system for GPS unit. Please attach a copy of these plugging conditions.

The NMOSE Well Plugging Plan of Operations is hereby approved with the aforesaid conditions applied.

Witness my hand and seal this 31<sup>st</sup> day of October 2024

Elizabeth K. Anderson, P.E. State Engineer

By: K. Parekh

Kashyap Parekh  
Water Resources Manager I





## WELL PLUGGING PLAN OF OPERATIONS



NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging. This form may be used to plug a single well, or if you are plugging multiple monitoring wells on the same site using the same plugging methodology.

**Alert!** Your well may be eligible to participate in the Aquifer Mapping Program (AMP)-NM Bureau of Geology [geoinfo.nmt.edu/resources/water/cgmn/](http://geoinfo.nmt.edu/resources/water/cgmn/) if within an area of interest and meets the minimum construction requirements, such as there is still water in your well, and the well construction reflected in a well record and log is not compromised, contact AMP at 575-835-5038 or -6951, or by email [ambg-waterlevels@nmt.edu](mailto:ambg-waterlevels@nmt.edu), prior to completing this prior form. Showing proof to the OSE that your well was accepted in this program, may delay the plugging of your well until a later date.

**I. FILING FEE:** There is no filing fee for this form.

**II. GENERAL / WELL OWNERSHIP:** ☐ Check here if proposing one plan for multiple monitoring wells on the same site and attaching WD-08m

Existing Office of the State Engineer POD Number (Well Number) for well to be plugged: C-4908-POD1

Name of well owner: Oxy USA Inc.

Mailing address: PO BOX 4294 County: Harris

City: Houston State: Texas Zip code: 77210

Phone number: 575-390-2828 E-mail: wade\_dittrich@oxy.com

**III. WELL DRILLER INFORMATION:**

Well Driller contracted to provide plugging services: West Texas Water Well Service

New Mexico Well Driller License No.: WD-1184 Expiration Date: 10/31/2025

**IV. WELL INFORMATION:** ☐ Check here if this plan describes method for plugging multiple monitoring wells on the same site and attach supplemental form WD-08m and skip to #2 in this section.

Note: A copy of the existing Well Record for the well(s) to be plugged should be attached to this plan.

1) GPS Well Location: Latitude: 32 deg, 21 min, 24.2094 sec  
Longitude: -103 deg, 37 min, 51.2034 sec, NAD 83

2) Reason(s) for plugging well(s):

Investigation soil boring to determine groundwater level.

3) Was well used for any type of monitoring program? N/A If yes, please use section VII of this form to detail what hydrogeologic parameters were monitored. If the well was used to monitor contaminated or poor quality water, authorization from the New Mexico Environment Department may be required prior to plugging.

4) Does the well tap brackish, saline, or otherwise poor quality water? N/A If yes, provide additional detail, including analytical results and/or laboratory report(s):

5) Static water level: Unknown feet below land surface / feet above land surface (circle one)

6) Depth of the well: 110 feet



- 7) Inside diameter of innermost casing: N/A inches.
- 8) Casing material: N/A
- 9) The well was constructed with:  
☐ an open-hole production interval, state the open interval: \_\_\_\_\_  
☐ a well screen or perforated pipe, state the screened interval(s): \_\_\_\_\_
- 10) What annular interval surrounding the artesian casing of this well is cement-grouted? N/A
- 11) Was the well built with surface casing? No If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? No If yes, please describe:  
 \_\_\_\_\_
- 12) Has all pumping equipment and associated piping been removed from the well? N/A If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.

**V. DESCRIPTION OF PLANNED WELL PLUGGING:** ☐ If plugging method differs between multiple wells on same site, a separate form must be completed for each method.

Note: If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie pipe, a detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional technical information, such as geophysical logs, that are necessary to adequately describe the proposal. Attach a copy of any signed OSE variance to this plugging plan.

Also, if this planned plugging plan requires a variance to 19.27.4 NMAC, attach a detailed variance request signed by the applicant.

- 1) Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well:  
 \_\_\_\_\_  
 The soil boring will be plugged tremie from bottom to a slurry of Portland TYPE I/II Neat cement in lifts.
- 2) Will well head be cut-off below land surface after plugging? N/A

**VI. PLUGGING AND SEALING MATERIALS:**

Note: The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant. Attach a copy of the batch mix recipe from the cement company and/or product description for specialty cement mixes or any sealant that deviates from the list of OSE approved sealants.

- 1) For plugging intervals that employ cement grout, complete and attach Table A.
- 2) For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.
- 3) Theoretical volume of grout required to plug the well to land surface: 100
- 4) Type of Cement proposed: Type I/II Neat Cement
- 5) Proposed cement grout mix: <6.0 gallons of water per 94 pound sack of Portland cement.
- 6) Will the grout be: \_\_\_\_\_ batch-mixed and delivered to the site  
X mixed on site



- 7) Grout additives requested, and percent by dry weight relative to cement:

N/A

- 8) Additional notes and calculations:

N/A

**VII. ADDITIONAL INFORMATION:** List additional information below, or on separate sheet(s):

Volumes calculated on an up to an approximate 6" boring.

**VIII. SIGNATURE:**

I, Kelly Lowery, say that I have carefully read the foregoing Well Plugging Plan of Operations and any attachments, which are a part hereof; that I am familiar with the rules and regulations of the State Engineer pertaining to the plugging of wells and will comply with them, and that each and all of the statements in the Well Plugging Plan of Operations and attachments are true to the best of my knowledge and belief.

*Kelly Lowery*

Signature of Applicant

10/21/2024

Date

**IX. ACTION OF THE STATE ENGINEER:**

This Well Plugging Plan of Operations is:

☒ Approved subject to the attached conditions.  
☐ Not approved for the reasons provided on the attached letter.

October

2024

Witness my hand and official seal this

31<sup>st</sup> day of

Elizabeth K. Anderson P.E.

., New Mexico State Engineer

By: *K. Parekh*  
 Kashyap Parekh

Water Resources Manager I

WD-08 Well Plugging Plan  
 Version: March 07, 2022  
 Page 3 of 5



**TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.**

	<b>Interval 1 – deepest</b>	<b>Interval 2</b>	<b>Interval 3 – most shallow</b>
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)	N/A	N/A	0
Bottom of proposed interval of grout placement (ft bgl)	N/A	N/A	100
Theoretical volume of grout required per interval (gallons)	N/A	N/A	50
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement	N/A	N/A	<6.0
Mixed on-site or batch-mixed and delivered?	N/A		
Grout additive 1 requested	N/A	N/A	N/A
Additive 1 percent by dry weight relative to cement	N/A	N/A	N/A
Grout additive 2 requested	N/A	N/A	N/A
Additive 2 percent by dry weight relative to cement	N/A	N/A	N/A

**TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.**

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)	N/A	N/A	0
Bottom of proposed sealant or grout placement (ft bgl)	N/A	N/A	10
Theoretical volume of sealant required per interval (gallons)	N/A	N/A	52
Proposed abandonment sealant (manufacturer and trade name)	N/A	N/A	Bariod Hole Plug



## C-4908-POD1 (SB-1)

## ENSOLUM

<b>PROJECT NUMBER</b> 03B1417144	<b>DRILLING DATE</b> 12/09/2024 - 12/09/2024	<b>COORDINATES</b> 32.354063, -103.631131
<b>PROJECT NAME</b> Shell State 1C CTB	<b>TOTAL DEPTH</b> 110' BGS	<b>COORD SYS</b> N/A
<b>CLIENT</b> Oxy USA, Inc	<b>DIAMETER</b> 6.25"	<b>COMPLETION</b> Plugged after 72 hrs
<b>ADDRESS</b> PO Box 4294 Houston, Texas 77210	<b>CASING</b> Temporary 2" PVC.	<b>SURFACE ELEVATION</b> N/A
<b>LICENCE NO.</b> WD-1184	<b>SCREEN</b> 10'	<b>WELL TOC</b> N/A

<b>COMMENTS</b> Temporary casing removed after 72 hours. The borehole was backfilled with cuttings (3' - 110') and plugged with Quikrete (0 - 3') 72 hours after drilling. No water was encountered.	<b>LOGGED BY</b> Nicolas Christakos <b>CHECKED BY</b> Kelly Lowery
--	---

Depth (ft)	Water	Well Diagram	Graphic Log	Material Description
10				Gravelly sand, light brown, some gravel, coarse to large gravel, non-cohesive, non-plastic, non-uniform, dry, no odor
20				Gravelly sand, reddish - grey, few gravel, fine to large gravel, non-cohesive, non-plastic, non-uniform, dry, no odor
30				Gravelly sand, reddish - grey, few gravel, fine to large gravel, non-cohesive, non-plastic, non-uniform, dry, no odor
40				Gravelly sand, reddish-grey, trace gravel, fine to little gravel, non-cohesive, non-plastic, non-uniform, dry, no odor
50				Sand, reddish-brown, fine to very fine, uniform, non-cohesive, non-plastic, dry, no odor
60				Gravelly sand, reddish-brown, trace gravel, fine to very fine, non-uniform, non-cohesive, non-plastic, dry, no odor
70				Sand, reddish-brown, very fine to fine, uniform, non-cohesive, non-plastic, no odor, dry
80				Clayey sand, reddish-brown, very fine to fine, some clay aggregates, oxidized, non-uniform, non-cohesive, non plastic, no odor, dry
90				Clayey sand, reddish-brown, very fine - fine, few clay aggregates, oxidized, non-uniform, non-cohesive, non-plastic, dry, no odor
100				Sandy clay, reddish-brown, trace gravel, coarse - small gravel, loose clay aggregates, non-uniform, non-cohesive, non-plastic, dry, no odor
110				Gravelly clay, reddish-brown, coarse to large gravel, non-uniform, non-cohesive, non-plastic, dry, no odor

**Disclaimer** This bore log is intended for environmental not geotechnical purposes.

Page 1 of 1



**Kelly Lowery**

---

**From:** Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>  
**Sent:** Friday, October 18, 2024 4:03 PM  
**To:** Kelly Lowery  
**Cc:** Wade Dittrich; Tyson Pierce; Beaux Jennings; Bratcher, Michael, EMNRD; Wells, Shelly, EMNRD  
**Subject:** Re: [EXTERNAL] Extension Request: Shell State 1C CTB (Incident ID: nAPP2402456040)

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

Good afternoon Kelly,

Thank you for the correspondence. Based on our telephone conversation, your 90-day time extension is approved. Remediation Due date has been updated to January 16, 2025.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

The OCD requires a copy of all correspondence relative to remedial activities be included in all proposals and/or final closure reports. Correspondence required to be included in reports may include, but not limited to, notifications for liner inspections, sample events, spill/release/fire, and request for time extensions or variances.

Regards,

**Nelson Velez** • Environmental Specialist - Adv  
Environmental Bureau | EMNRD - Oil Conservation Division  
1000 Rio Brazos Road | Aztec, NM 87410  
(505) 469-6146 | [nelson.velez@emnrd.nm.gov](mailto:nelson.velez@emnrd.nm.gov)  
<http://www.emnrd.nm.gov/oed>



---

**From:** Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>  
**Sent:** Friday, October 18, 2024 11:47 AM  
**To:** Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>  
**Cc:** Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>  
**Subject:** FW: [EXTERNAL] Extension Request: Shell State 1C CTB (Incident ID: nAPP2402456040)

---

**From:** Kelly Lowery <klowery@ensolum.com>  
**Sent:** Friday, October 18, 2024 11:33 AM



**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>  
**Cc:** Dittrich, John W <Wade\_Dittrich@oxy.com>; Pierce, Tyson (Legacy Safety & Consulting LLC) <tyson\_pierce@oxy.com>; Beaux Jennings <bjennings@ensolum.com>  
**Subject:** [EXTERNAL] Extension Request: Shell State 1C CTB (Incident ID: nAPP2402456040)


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

Good afternoon,

On behalf of Oxy USA, Inc., Ensolum, LLC would like to request a 90-day extension for the Shell State 1C CTB (Incident ID: nAPP2402456040). Excavation and remediation activities are currently on-going at the Site to delineate both vertically and horizontally. Additionally, we are currently waiting on approval from the New Mexico Office of State Engineer to drill a depth-to-water (DTW) boring to confirm the presence or absence of groundwater at the Site. We respectfully ask that the OCD grants us this 90-day extension for future sampling and subsequent reporting.

Thank you and have a great day,



**Kelly Lowery, GIT**  
Project Geologist  
214-733-3165  
**Ensolum, LLC**  
in f 

**Kelly Lowery**

---

**From:** Dittrich, John W <Wade\_Dittrich@oxy.com>  
**Sent:** Monday, January 27, 2025 3:02 PM  
**To:** Kelly Lowery; Beaux Jennings  
**Cc:** Hadlie Green; Georgiana McSwane  
**Subject:** Fw: The Oil Conservation Division (OCD) has approved the application, Application ID: 421823

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

Shell St. 1C CTB-1/23/2024

**Wade Dittrich**

Environmental Advisor

New Mexico

575-390-2828

wade\_dittrich@oxy.com

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**From:** OCDOnline@state.nm.us <OCDOnline@state.nm.us>  
**Sent:** Monday, January 27, 2025 11:43 AM  
**To:** Dittrich, John W <wade\_dittrich@oxy.com>  
**Subject:** [EXTERNAL] The Oil Conservation Division (OCD) has approved the application, Application ID: 421823

**WARNING - This message is from an EXTERNAL SENDER - be CAUTIOUS, particularly with links and attachments.**

---

To whom it may concern (c/o Wade Dittrich for OXY USA INC),  
The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2402456040,  
with the following conditions:

- Remediation plan is approved as written except with the following condition; 1. Variance request increasing the sampling frequency to 400 square feet (ft.2) per one (1) five-point composite (5pc) from the excavation floor and 200 ft.2 from the sidewalls is approved. 2. Prior to backfilling the open excavation per 19.15.29.12D (2) NMAC, OXY must collect a minimum of one (1) 5pc from the media being used as backfill to verify that it meets non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. This is especially important for the material being used within the top four (4) feet from the ground surface. 3. OXY has 90-days (April 28, 2025) to submit to OCD its appropriate or final remediation closure report.

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you,

Nelson Velez

Environmental Specialist - Advanced

505-469-6146

Nelson.Velez@emnrd.nm.gov

**New Mexico Energy, Minerals and Natural Resources Department**

1220 South St. Francis Drive

Santa Fe, NM 87505

**Kelly Lowery**

---

**From:** Knight, Tami C. <tknight@nmslo.gov>  
**Sent:** Wednesday, January 29, 2025 7:07 AM  
**To:** Kelly Lowery  
**Cc:** Dittrich, John W; Pierce, Tyson (Legacy Safety & Consulting LLC); Beaux Jennings  
**Subject:** (Remediation Plan) Oxy USA, Inc. - Shell State 1C CTB- nAPP2402456040) - 1/23/24 - Approved w/ Conditions  
**Attachments:** Sand Reclaim Tips.pdf

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

Kelly

Documentation of proposed remediation actions for the subject release incident was received from your office on January 16, 2025. The NMSLO Environmental Compliance Office (ECO) has reviewed the plan, and based on the information provided in the document received from your office, ECO has approved the remediation plan with the following conditions:

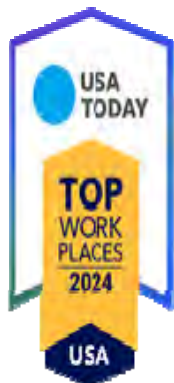
1. Note, site delineation plans are required to be submitted to ECO for review where site delineation and remediation closure will not meet the 90 day NMOCD closure window. This is especially a sensitive requirement where earth disturbance will occur off pad.
2. Due to the sensitive soils, please keep all traffic in and out of the excavation area to a minimum and use one point of access into the remediation area.
3. Backfill material must match natural soil horizons. Due to the sensitive soil, ECO recommends amending the backfill with organics; see attached.
4. Submit a reclamation plan to [eco@nmslo.gov](mailto:eco@nmslo.gov).
5. NMSLO maps and Wetland maps document a pond immediately north of the subject facility. Due to the distance from the release this does not appear to alter closure criteria, but this should be noted for future projects at this facility.



Respond to this email that you understand and agree to the conditions of approval.

Please submit the remediation closure report to [eco@nmslo.gov](mailto:eco@nmslo.gov).

Lessee and/or their contractor are responsible for ensuring the project manager and field personnel performing the work follow the approved work plan.



**Environmental Compliance Office**  
 Surface Resources Division  
[eco@nmslo.gov](mailto:eco@nmslo.gov)  
[nmstatelands.org](http://nmstatelands.org)



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---

**From:** Kelly Lowery <klowery@ensolum.com>  
**Sent:** Thursday, January 16, 2025 4:40 PM  
**To:** SLO Spills <spills@nmslo.gov>; SLO Spills <spills@nmslo.gov>  
**Cc:** Dittrich, John W <Wade\_Dittrich@oxy.com>; Pierce, Tyson (Legacy Safety & Consulting LLC) <tyson\_pierce@oxy.com>; Beaux Jennings <bjennings@ensolum.com>  
**Subject:** [EXTERNAL] (Remediation Work Plan and Variance Request) Oxy USA, Inc. - Shell State 1C CTB (Facility ID: fAPP2127031415/Incident #: nAPP2402456040) - Incident Date: January 23, 2024

Good afternoon,

The *Remediation Work Plan and Variance Request* for Shell State 1C CTB (Facility ID: fAPP2127031415/Incident #: nAPP2402456040) has been uploaded to the NMOCD Online Portal with PO#: T9LJJ-250116-C-1410 on 01/16/2025.

Please let me know if you have any questions.

Thank you,



**Kelly Lowery, GIT**  
 Project Geologist  
 214-733-3165  
**Ensolum, LLC**  
 in f



# NMSLO Seed Mix

# Deep Sand (DS)

## 1.1 BLOW SAND SITES REVEGETATION PLAN (BS)

Use this Revegetation Plan with the following ESD's:

**CP2** – Sandy Plains, Sandhills, Deep Sand, Shallow Plains

**HP3** – Loamy Sand, Sandy Plains, Sandhills, Deep Sand

**SD3** – Loamy Sand, Deep Sand, Sandhills, Salt Meadow

**Soil Texture:** Fine Sand, Sand, Course Sand

### Revegetation Procedures:

#### I. For flat or gently sloping areas with slopes less than or equal to 3H:1V:

1. **Soil Amendments:** Apply composted manure or similar at the rate of 30.0 air dry tons/acre.
2. **Fertilize:** Type 2
3. **Mulch** – Grass Hay mulch applied at 2.0 tons/acre
4. **Prepare the seedbed and incorporate mulch, fertilizer, and soil amendments:**
  - a. Scarify
  - b. Disc (thoroughly mix mulch, fertilizer, and soil amendments in top 6-8 inches of soil before proceeding).
5. **Drill Seed** – use rangeland drill and apply Drill box seed to 0.5-0.75 inch depth, apply small seed to surface and lightly cover with drag chains or packer wheels or equal.
6. **Mulch** – Grass Hay mulch applied at 2.0 tons/acre
7. **Crimp**
8. **Tackify** – tackify to minimize risk of mulch blowing and to hold soil and mulch in place until vegetation begins to establish.
9. **Wind Fence** – Install wind fence.



**NMSLO Seed Mix****Deep Sand (DS)****DEEP SAND (DS) SITES SEED MIXTURE:**

COMMON NAME	VARIETY	APPLICATION RATE (PLS/Acre)	DRILL BOX
<b>Grasses:</b>			
Sand bluestem	Elida, VNS, So.	4.0	F
Sideoats grama	Vaughn, El Reno	4.0	F
Little bluestem	Cimarron, Pastura	3.0	F
Plains bristlegrass	VNS, Southern	1.0	D
Sand dropseed	VNS, Southern	2.0	S
Blue grama	Lovington	1.0	D
<b>Forbs:</b>			
Firewheel (Gaillardia)	VNS, Southern	1.0	D
Annual Sunflower	VNS, Southern	0.5	D
Prairie Conflower	VNS, Southern	0.5	D
<b>Total PLS/acre</b>		<b>17</b>	

S = Small seed drill box, D = Standard seed drill box, F = Fluffy seed drill box  
 VNS = Variety Not Stated, PLS = Pure Live Seed

- Seed mixes should be provided in bags separating seed types into the three categories: small (S), standard (D) and fluffy (F).
- VNS, Southern – Seed should be from a southern latitude collection of this species.
- Double seed application rate for broadcast or hydroseeding.
- If one species is not available, contact the SLO for an approved substitute; alternatively the SLO may require other species proportionately increased.
- Additional information on these seed species can be found on the USDA Plants Database website at <http://plants.usda.gov>.





## APPENDIX C

### Photographic Documentation

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Project: Shell State 1C CTB  
Entity: Oxy USA, Inc  
Incident ID: nAPP2402456040



View of release extent prior to remediation activities, facing southeast (January 25, 2024).



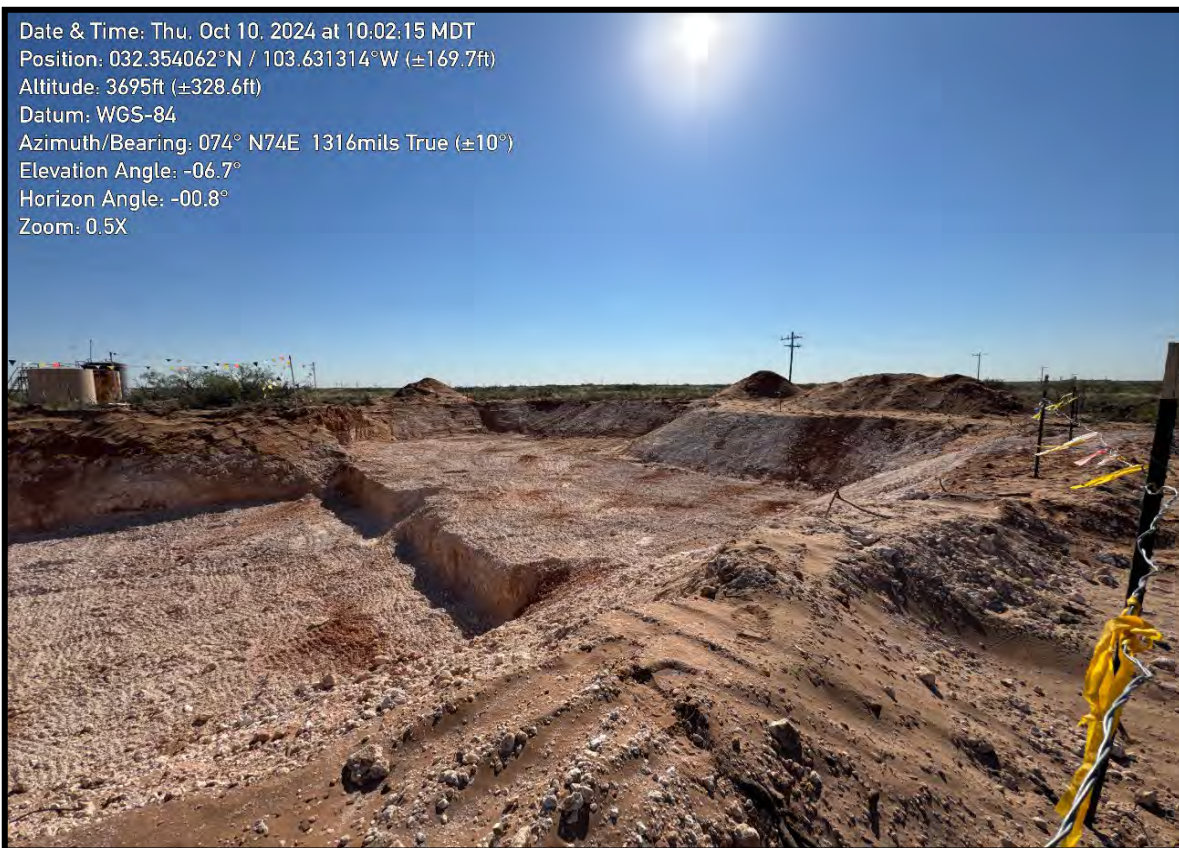
View of release extent prior to remediation activities, facing southeast (January 25, 2024).



Project: Shell State 1C CTB  
Entity: Oxy USA, Inc  
Incident ID: nAPP2402456040



Date & Time: Thu, Oct 10, 2024 at 10:02:15 MDT  
Position: 032.354062°N / 103.631314°W ( $\pm 169.7$ ft)  
Altitude: 3695ft ( $\pm 328.6$ ft)  
Datum: WGS-84  
Azimuth/Bearing: 074° N74E 1316mils True ( $\pm 10^\circ$ )  
Elevation Angle: -06.7°  
Horizon Angle: -00.8°  
Zoom: 0.5X



View of release extent during remediation activities, facing northeast (October 10, 2024).

Date & Time: Thu, Oct 10, 2024 at 10:02:18 MDT  
Position: 032.353983°N / 103.631301°W ( $\pm 23.4$ ft)  
Altitude: 3741ft ( $\pm 43.7$ ft)  
Datum: WGS-84  
Azimuth/Bearing: 026° N26E 0462mils True ( $\pm 10^\circ$ )  
Elevation Angle: -16.3°  
Horizon Angle: +00.5°  
Zoom: 0.5X



View of release extent during remediation activities, facing northeast (October 10, 2024).



Project: Shell State 1C CTB  
Entity: Oxy USA, Inc  
Incident ID: nAPP2402456040



View of release extent during remediation activities, facing northeast (January 24, 2025).



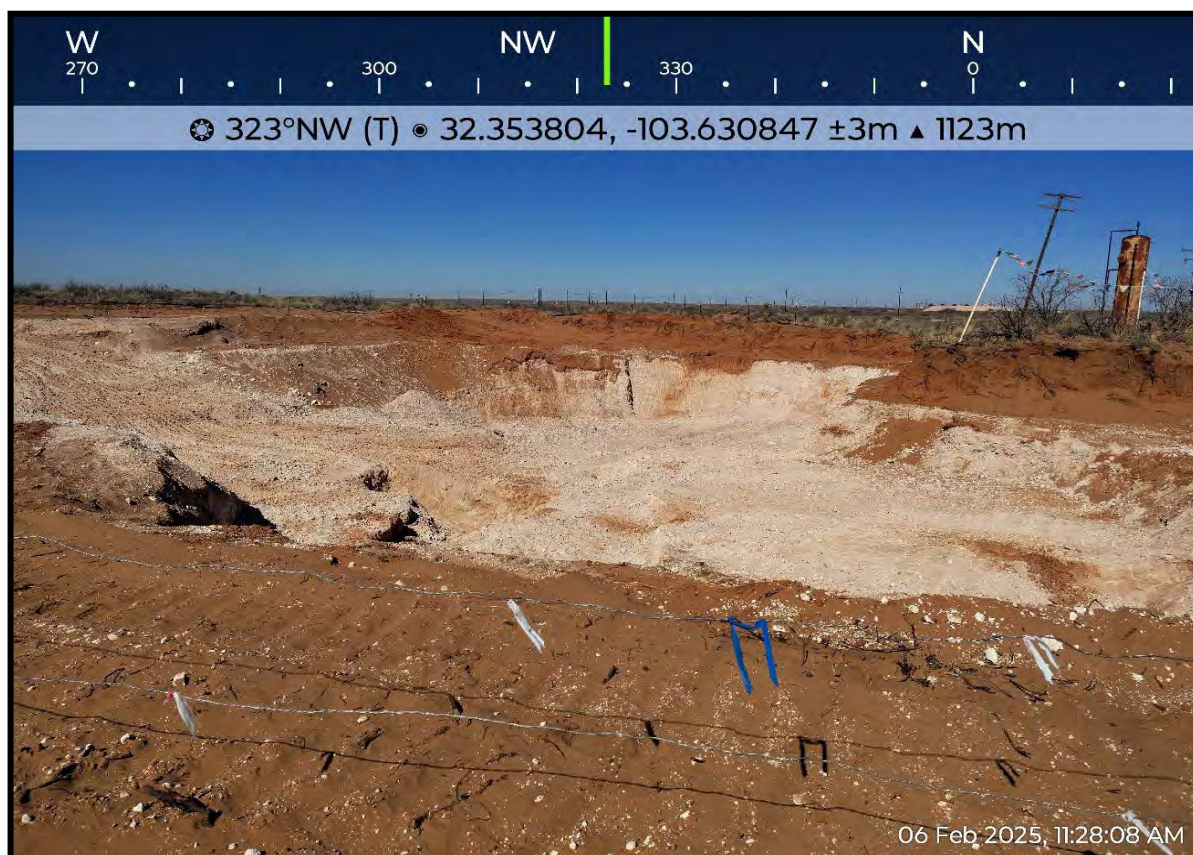
View of release extent during remediation activities, facing east (January 24, 2025).



Project: Shell State 1C CTB  
Entity: Oxy USA, Inc  
Incident ID: nAPP2402456040



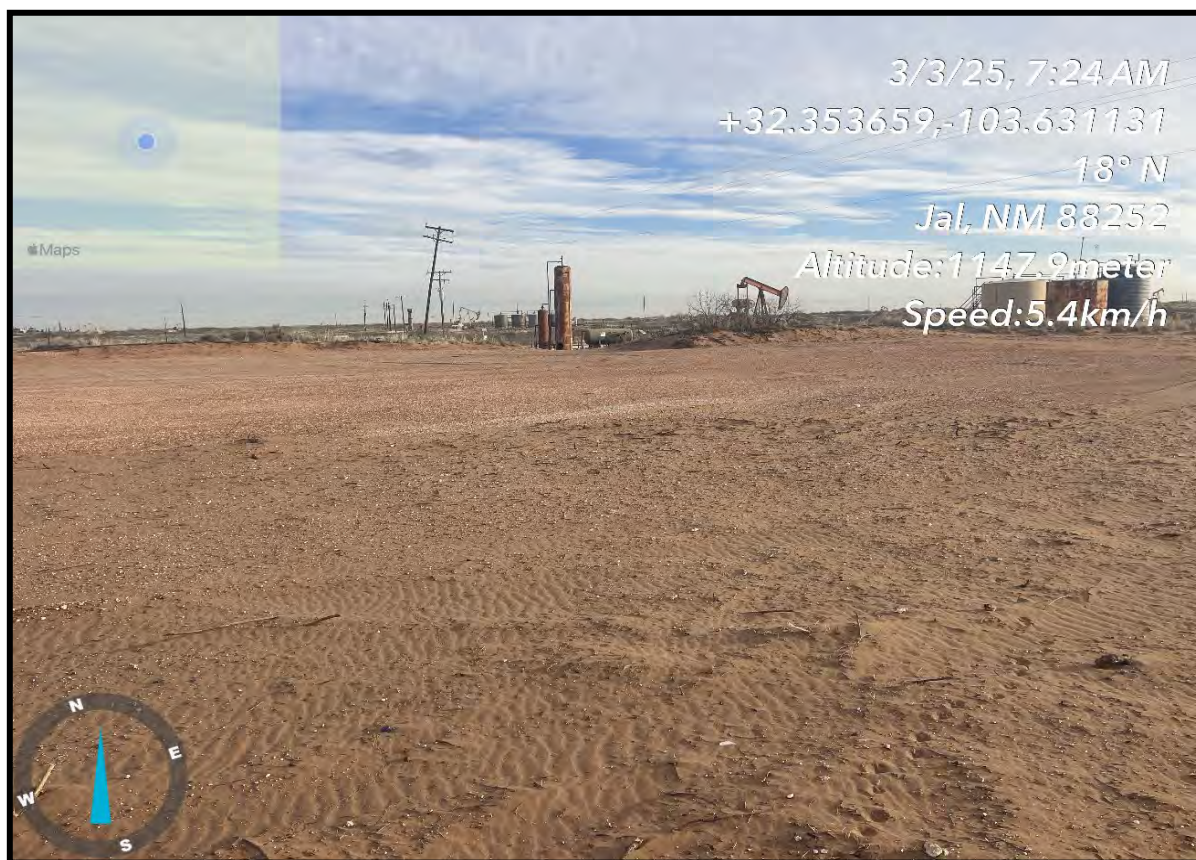
View of release extent during remediation activities, facing west (February 6, 2025).



View of release extent during remediation activities, facing northwest (February 6, 2025).



Project: Shell State 1C CTB  
Entity: Oxy USA, Inc  
Incident ID: nAPP2402456040



View of release extent post backfill activities, facing north (March 3, 2025).



View of release extent post backfill activities, facing west (March 3, 2025).



## APPENDIX D

Table(s)

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**TABLE 1**  
**FLOOR & SIDEWALL SOIL SAMPLE ANALYTICAL RESULTS (REMEDIATION ZONE)**

Shell State 1C CTB  
Oxy USA, Inc.  
Lea County, New Mexico  
Ensolum Project No. 03B1417144

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (GRO+DRO) (mg/kg)	TPH MRO (mg/kg)	Total TPH (GRO+DRO+MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (> 100 feet)			10	NE	NE	NE	50	1,000	NE	2,500	20,000
Composite Floor Soil Sample Analytical Results											
FS01	10/10/2024	13	<0.050	<0.050	<0.050	<0.150	<0.300	33.5	<10.0	33.5	39,200
	01/22/2025	17	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	4,000
FS02	10/10/2024	13	<0.050	<0.050	<0.050	<0.150	<0.300	78.4	18.2	96.6	45,600
	01/22/2025	17	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	1,600
FS03	10/10/2024	13	<0.050	<0.050	<0.050	<0.150	<0.300	17.5	<10.0	17.5	44,000
	01/22/2025	15	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	992
FS04	10/10/2024	13	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	48,800
	01/22/2025	15	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	2,000
FS05	10/10/2024	13	<0.050	<0.050	<0.050	<0.150	<0.300	47.4	<10.0	47.4	48,000
	01/22/2025	15	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	6,880
FS06	10/10/2024	13	<0.050	<0.050	<0.050	<0.150	<0.300	11.1	<10.0	11.1	43,200
	01/22/2025	15	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	528
FS07	10/10/2024	13	<0.050	<0.050	<0.050	<0.150	<0.300	14.4	<10.0	14.4	46,400
	01/22/2025	15	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	15,800
FS08	10/10/2024	13	<0.050	<0.050	<0.050	<0.150	<0.300	175	42.7	218	44,000
	01/22/2025	15	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	13,400
FS09	10/10/2024	13	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	6,530
FS10	10/10/2024	13	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	65,600
	01/22/2025	15	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	11,900
FS11	10/10/2024	13	<0.050	<0.050	<0.050	<0.150	<0.300	125	40.9	166	64,800
	01/22/2025	15	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	10,000
FS12	10/10/2024	13	<0.050	<0.050	<0.050	<0.150	<0.300	20.6	<10.0	20.6	52,000
	01/22/2025	15	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	8,930
FS13	10/10/2024	9	<0.050	<0.050	<0.050	<0.150	<0.300	110	24.0	134	38,400
	01/24/2025	11	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	10,000
FS14	10/10/2024	9	<0.050	<0.050	<0.050	<0.150	<0.300	97.7	18.6	116	54,400
	01/24/2025	11	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	11,100
FS15	10/10/2024	9	<0.050	<0.050	<0.050	<0.150	<0.300	142	40.4	182	42,400
	01/24/2025	13	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	13,500
FS16	10/10/2024	9	<0.050	<0.050	<0.050	<0.150	<0.300	526	144	670	24,000
	01/24/2025	13	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	20,600
	02/06/2025	18	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	10,000
FS17	10/10/2024	9	<0.050	<0.050	<0.050	<0.150	<0.300	50.1	19.0	69.1	44,800
	01/24/2025	11	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	18,800



**TABLE 1**  
**FLOOR & SIDEWALL SOIL SAMPLE ANALYTICAL RESULTS (REMEDIATION ZONE)**

Shell State 1C CTB  
Oxy USA, Inc.  
Lea County, New Mexico  
Ensolum Project No. 03B1417144

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (GRO+DRO) (mg/kg)	TPH MRO (mg/kg)	Total TPH (GRO+DRO+MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (> 100 feet)			10	NE	NE	NE	50	1,000	NE	2,500	20,000
FS18	10/10/2024	9	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	21,200
	01/24/2025	11	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	10,200
FS19	10/10/2024	9	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	60,800
	01/24/2025	11	<0.050	<0.050	<0.050	<0.150	<0.300	10.6	<10.0	10.6	6,880
FS20	10/10/2024	9	<0.050	<0.050	<0.050	<0.150	<0.300	14.1	<10.0	14.1	65,600
	01/24/2025	11	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	17,000
FS21	10/10/2024	9	<0.050	<0.050	<0.050	<0.150	<0.300	85.9	33.1	119	51,200
	01/24/2025	13	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	16,600
FS22	10/10/2024	9	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	35,200
	01/24/2025	13	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	18,000
FS23	10/10/2024	9	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	8,130
FS24	10/10/2024	9	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	864
FS25	10/10/2024	9	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	160
FS26	10/10/2024	9	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	19,200
FS27	10/10/2024	9	<0.050	<0.050	<0.050	<0.150	<0.300	216	65.9	282	32,400
	01/24/2025	13	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	7,680
FS28	10/10/2024	9	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	13,600
FS29	10/10/2024	9	<0.050	<0.050	<0.050	<0.150	<0.300	269	84.9	354	37,200
	01/24/2025	11	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	11,800
FS30	10/10/2024	9	<0.050	<0.050	<0.050	<0.150	<0.300	73.9	29.2	103	29,200
	01/24/2025	11	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	2,920
FS31	10/10/2024	9	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	56,000
	01/24/2025	11	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	1,100
FS32	10/10/2024	9	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	14,000
	01/24/2025	15	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	4,640
FS33	01/24/2025	15	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	3,080

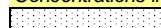


**TABLE 1**  
**FLOOR & SIDEWALL SOIL SAMPLE ANALYTICAL RESULTS (REMEDIATION ZONE)**

Shell State 1C CTB  
Oxy USA, Inc.  
Lea County, New Mexico  
Ensolum Project No. 03B1417144

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (GRO+DRO) (mg/kg)	TPH MRO (mg/kg)	Total TPH (GRO+DRO+MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (> 100 feet)			10	NE	NE	NE	50	1,000	NE	2,500	20,000
Composite Sidewall Soil Sample Analytical Results											
SW01	10/10/2024	4 - 9	<0.050	<0.050	<0.050	<0.150	<0.300	<b>50.0</b>	<10.0	<b>50.0</b>	<b>76,800</b>
	01/24/2025	4 - 15	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<b>1,090</b>
SW02	10/10/2024	4 - 9	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<b>9,600</b>
SW03	10/10/2024	4 - 9	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<b>6,660</b>
SW04	10/10/2024	4 - 9	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<b>864</b>
SW05	10/10/2024	4 - 9	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<b>272</b>
SW06	10/10/2024	4 - 9	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<b>2,800</b>
SW07	10/10/2024	4 - 13	<0.050	<0.050	<0.050	<0.150	<0.300	<b>328</b>	<b>104</b>	<b>432</b>	<b>8,000</b>
SW08	10/10/2024	4 - 13	<0.050	<0.050	<0.050	<0.150	<0.300	<b>65.7</b>	<b>11.4</b>	<b>77.1</b>	<b>17,800</b>
SW09	10/10/2024	4 - 13	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<b>40,000</b>
	01/23/2025	4 - 15	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<b>10,000</b>
SW10	10/10/2024	4 - 13	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<b>90,600</b>
	01/23/2025	4 - 15	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<b>6,000</b>
SW11	10/10/2024	4 - 13	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<b>26,400</b>
	01/23/2025	4 - 15	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<b>10,700</b>
SW12	10/10/2024	4 - 13	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<b>32,000</b>
	01/23/2025	4 - 15	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<b>13,300</b>
SW13*	10/10/2024	9 - 13	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<b>64,000</b>
SW14*	10/10/2024	9 - 13	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<b>29,200</b>
SW16	02/06/2025	13 - 18	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<b>3,080</b>

Concentrations in **bold** and yellow exceed the New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (> 100 feet)

 Additional Excavation and/or Re-Sample

\*: Sample Location Removed During Additional Excavation Activities

bgs: below ground surface

mg/kg: milligrams per kilogram

NE: Not Established

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

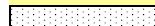
MRO: Motor Oil/Lube Oil Range Organics

TPH: Total Petroleum Hydrocarbon

**TABLE 2**  
**SIDEWALL SOIL SAMPLE ANALYTICAL RESULTS (RECLAMATION ZONE)**  
 Shell State 1C CTB  
 Oxy USA, Inc.  
 Lea County, New Mexico  
 Ensolum Project No. 03B1417144

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (GRO+DRO+MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (≤ 50 feet)			10	NE	NE	NE	50	NE	NE	NE	100	600
Composite Sidewall Soil Sample Analytical Results												
SW01	10/10/2024	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	176
SW02	10/10/2024	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	1,520
	01/23/2025	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	48.0
SW03	10/10/2024	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	26,400
	01/23/2025	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	80.0
SW04	10/10/2024	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	7,600
	01/23/2025	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0
SW05	10/10/2024	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	2,200
	01/23/2025	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	16.0
SW06	10/10/2024	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	832
	01/23/2025	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.0
SW07	10/10/2024	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	10.4	<10.0	10.4	48,800
	01/23/2025	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	240
SW08	10/10/2024	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	30.8	<10.0	30.8	8,660
	01/23/2025	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.0
SW09	10/10/2024	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	68,000
	01/23/2025	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	32.0
SW10	10/10/2024	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	22,400
	01/23/2025	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	80.0
SW11	10/10/2024	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	8,800
	01/23/2025	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	16.0
SW12	10/10/2024	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	40,000
	01/23/2025	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	256

Concentrations in **bold** and yellow exceed the New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (≤ 50 feet)

 Additional Excavation and/or Re-Sample

bgs: below ground surface

mg/kg: milligrams per kilogram

NE: Not Established

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

MRO: Motor Oil/Lube Oil Range Organics

TPH: Total Petroleum Hydrocarbon

**TABLE 3**  
**BACKFILL SOIL SAMPLE ANALYTICAL RESULTS**  
 DR PI Topsoil  
 Oxy USA, Inc.  
 Lea County, New Mexico  
 Ensolum Project No. NA

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (GRO+DRO+MRO) (mg/kg)	Chloride (mg/kg)
<b>New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (≤ 50 feet)</b>			<b>10</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>100</b>	<b>600</b>
<b>Composite Background Soil Sample Analytical Result</b>												
DR PI Topsoil	02/06/2025	NA	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<b>64.0</b>

bgs: below ground surface

mg/kg: milligrams per kilogram

NA: Not Applicable

NE: Not Established

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

MRO: Motor Oil/Lube Oil Range Organics

TPH: Total Petroleum Hydrocarbon



**TABLE 4**  
**BACKFILL SOIL SAMPLE ANALYTICAL RESULTS**  
 Mills Ranch Pit  
 Oxy USA, Inc.  
 Lea County, New Mexico  
 Ensolum Project No. NA

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (GRO+DRO+MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (≤ 50 feet)			10	NE	NE	NE	50	NE	NE	NE	100	600
Composite Background Soil Sample Analytical Result												
Mills Ranch Pit	09/30/2024	NA	<0.050	0.060	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<16.0

bgs: below ground surface

mg/kg: milligrams per kilogram

NA: Not Applicable

NE: Not Established

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

MRO: Motor Oil/Lube Oil Range Organics

TPH: Total Petroleum Hydrocarbon





## APPENDIX E

### Laboratory Analytical Reports & Chain-of-Custody Documentation

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

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October 17, 2024

KELLY LOWERY

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: SHELL STATE 1C CTB

Enclosed are the results of analyses for samples received by the laboratory on 10/11/24 13:55.

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  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 01 13' (H246214-01)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/16/2024	ND	2.03	102	2.00	3.40		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	2.33		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.14	107	2.00	1.90		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.41	107	6.00	2.13		
Total BTX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	39200	16.0	10/16/2024	ND	416	104	400	0.00	QM-07	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	211	105	200	7.34	
DRO >C10-C28*	33.5	10.0	10/15/2024	ND	191	95.6	200	4.86	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 93.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 02 13' (H246214-02)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/16/2024	ND	2.03	102	2.00	3.40	
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	2.33	
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.14	107	2.00	1.90	
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.41	107	6.00	2.13	
Total BTEx	<0.300	0.300	10/16/2024	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	45600	16.0	10/16/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	211	105	200	7.34	
DRO >C10-C28*	78.4	10.0	10/15/2024	ND	191	95.6	200	4.86	
EXT DRO >C28-C36	18.2	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 03 13' (H246214-03)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/16/2024	ND	2.03	102	2.00	3.40	
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	2.33	
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.14	107	2.00	1.90	
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.41	107	6.00	2.13	
Total BTEx	<0.300	0.300	10/16/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	44000	16.0	10/16/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	211	105	200	7.34	
DRO >C10-C28*	17.5	10.0	10/15/2024	ND	191	95.6	200	4.86	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 98.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 04 13' (H246214-04)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/16/2024	ND	2.03	102	2.00	3.40		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	2.33		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.14	107	2.00	1.90		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.41	107	6.00	2.13		
Total BTEX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48800	16.0	10/16/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	211	105	200	7.34	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	191	95.6	200	4.86	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 96.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 05 13' (H246214-05)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/16/2024	ND	2.03	102	2.00	3.40		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	2.33		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.14	107	2.00	1.90		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.41	107	6.00	2.13		
Total BTX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48000	16.0	10/16/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	211	105	200	7.34	
DRO >C10-C28*	47.4	10.0	10/15/2024	ND	191	95.6	200	4.86	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 95.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.8 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 06 13' (H246214-06)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/16/2024	ND	2.03	102	2.00	3.40		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	2.33		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.14	107	2.00	1.90		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.41	107	6.00	2.13		
Total BTEX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	43200	16.0	10/16/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	211	105	200	7.34	
DRO >C10-C28*	11.1	10.0	10/15/2024	ND	191	95.6	200	4.86	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 07 13' (H246214-07)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/16/2024	ND	2.03	102	2.00	3.40	
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	2.33	
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.14	107	2.00	1.90	
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.41	107	6.00	2.13	
Total BTEX	<0.300	0.300	10/16/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	46400	16.0	10/16/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	211	105	200	7.34	
DRO >C10-C28*	14.4	10.0	10/15/2024	ND	191	95.6	200	4.86	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 08 13' (H246214-08)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/16/2024	ND	2.03	102	2.00	3.40	
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	2.33	
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.14	107	2.00	1.90	
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.41	107	6.00	2.13	
Total BTEx	<0.300	0.300	10/16/2024	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	44000	16.0	10/16/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	211	105	200	7.34	
DRO >C10-C28*	175	10.0	10/15/2024	ND	191	95.6	200	4.86	
EXT DRO >C28-C36	42.7	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 119 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 09 13' (H246214-09)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/16/2024	ND	2.03	102	2.00	3.40		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	2.33		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.14	107	2.00	1.90		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.41	107	6.00	2.13		
Total BTX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6530	16.0	10/16/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	211	105	200	7.34	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	191	95.6	200	4.86	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 98.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 10 13' (H246214-10)**

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	10/16/2024	ND	2.03	102	2.00	3.40		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	2.33		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.14	107	2.00	1.90		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.41	107	6.00	2.13		
Total BTEX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	65600	16.0	10/16/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	211	105	200	7.34	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	191	95.6	200	4.86	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 11 13' (H246214-11)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/16/2024	ND	2.03	102	2.00	3.40	
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	2.33	
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.14	107	2.00	1.90	
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.41	107	6.00	2.13	
Total BTX	<0.300	0.300	10/16/2024	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64800	16.0	10/16/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	211	105	200	7.34	
DRO >C10-C28*	125	10.0	10/15/2024	ND	191	95.6	200	4.86	
EXT DRO >C28-C36	40.9	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 12 13' (H246214-12)**

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	10/16/2024	ND	2.03	102	2.00	3.40		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	2.33		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.14	107	2.00	1.90		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.41	107	6.00	2.13		
Total BTEX	<0.300	0.300	10/16/2024	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	52000	16.0	10/16/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	211	105	200	7.34	
DRO >C10-C28*	20.6	10.0	10/15/2024	ND	191	95.6	200	4.86	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 13 9' (H246214-13)**

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	10/16/2024	ND	2.03	102	2.00	3.40	
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	2.33	
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.14	107	2.00	1.90	
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.41	107	6.00	2.13	
Total BTEx	<0.300	0.300	10/16/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	38400	16.0	10/16/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	211	105	200	7.34	
DRO >C10-C28*	110	10.0	10/15/2024	ND	191	95.6	200	4.86	
EXT DRO >C28-C36	24.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 14 9' (H246214-14)**

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	10/16/2024	ND	2.07	104	2.00	0.356		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	3.52		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.18	109	2.00	4.66		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.50	108	6.00	4.46		
Total BTEX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	54400	16.0	10/16/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	211	105	200	7.34	
DRO >C10-C28*	97.7	10.0	10/15/2024	ND	191	95.6	200	4.86	
EXT DRO >C28-C36	18.6	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 15 9' (H246214-15)**

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	10/16/2024	ND	2.07	104	2.00	0.356		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	3.52		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.18	109	2.00	4.66		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.50	108	6.00	4.46		
Total BTEX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	42400	16.0	10/16/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	211	105	200	7.34	
DRO >C10-C28*	142	10.0	10/15/2024	ND	191	95.6	200	4.86	
EXT DRO >C28-C36	40.4	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 16 9' (H246214-16)**

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	10/16/2024	ND	2.07	104	2.00	0.356		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	3.52		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.18	109	2.00	4.66		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.50	108	6.00	4.46		
Total BTEx	<0.300	0.300	10/16/2024	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	24000	16.0	10/16/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	211	105	200	7.34	
DRO >C10-C28*	526	10.0	10/15/2024	ND	191	95.6	200	4.86	
EXT DRO >C28-C36	144	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 17 9' (H246214-17)**

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	10/16/2024	ND	2.07	104	2.00	0.356		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	3.52		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.18	109	2.00	4.66		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.50	108	6.00	4.46		
Total BTEX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	44800	16.0	10/16/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	211	105	200	7.34	
DRO >C10-C28*	50.1	10.0	10/15/2024	ND	191	95.6	200	4.86	
EXT DRO >C28-C36	19.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 18 9' (H246214-18)**

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	10/16/2024	ND	2.07	104	2.00	0.356		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	3.52		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.18	109	2.00	4.66		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.50	108	6.00	4.46		
Total BTEx	<0.300	0.300	10/16/2024	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	21200	16.0	10/16/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	211	105	200	7.34	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	191	95.6	200	4.86	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 118 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 19 9' (H246214-19)**

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	10/16/2024	ND	2.07	104	2.00	0.356		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	3.52		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.18	109	2.00	4.66		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.50	108	6.00	4.46		
Total BTEX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	60800	16.0	10/16/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	208	104	200	0.708	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	187	93.3	200	1.06	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 98.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 20 9' (H246214-20)**

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	10/16/2024	ND	2.07	104	2.00	0.356		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	3.52		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.18	109	2.00	4.66		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.50	108	6.00	4.46		
Total BTEx	<0.300	0.300	10/16/2024	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	65600	16.0	10/16/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	208	104	200	0.708	
DRO >C10-C28*	14.1	10.0	10/15/2024	ND	187	93.3	200	1.06	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 21 9' (H246214-21)**

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	10/16/2024	ND	2.07	104	2.00	0.356		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	3.52		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.18	109	2.00	4.66		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.50	108	6.00	4.46		
Total BTEx	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	51200	16.0	10/16/2024	ND	416	104	400	3.77	QM-07	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	208	104	200	0.708	
DRO >C10-C28*	85.9	10.0	10/15/2024	ND	187	93.3	200	1.06	
EXT DRO >C28-C36	33.1	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 90.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.9 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 22 9' (H246214-22)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/16/2024	ND	2.07	104	2.00	0.356		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	3.52		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.18	109	2.00	4.66		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.50	108	6.00	4.46		
Total BTX	<0.300	0.300	10/16/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 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	35200	16.0	10/16/2024	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	10/15/2024	ND	208	104	200	0.708	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	187	93.3	200	1.06	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 23 9' (H246214-23)**

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	10/16/2024	ND	2.07	104	2.00	0.356		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	3.52		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.18	109	2.00	4.66		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.50	108	6.00	4.46		
Total BTEx	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8130	16.0	10/16/2024	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	10/15/2024	ND	208	104	200	0.708	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	187	93.3	200	1.06	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 124 % 48.2-134

Surrogate: 1-Chlorooctadecane 124 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 24 9' (H246214-24)**

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	10/16/2024	ND	2.07	104	2.00	0.356		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	3.52		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.18	109	2.00	4.66		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.50	108	6.00	4.46		
Total BTEx	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	864	16.0	10/16/2024	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	10/15/2024	ND	208	104	200	0.708	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	187	93.3	200	1.06	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 117 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 25 9' (H246214-25)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/16/2024	ND	2.07	104	2.00	0.356		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	3.52		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.18	109	2.00	4.66		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.50	108	6.00	4.46		
Total BTX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	10/16/2024	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	10/15/2024	ND	208	104	200	0.708	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	187	93.3	200	1.06	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 117 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 26 9' (H246214-26)**

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	10/16/2024	ND	2.07	104	2.00	0.356		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	3.52		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.18	109	2.00	4.66		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.50	108	6.00	4.46		
Total BTEx	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	19200	16.0	10/16/2024	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	10/15/2024	ND	208	104	200	0.708	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	187	93.3	200	1.06	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 116 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 27 9' (H246214-27)**

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	10/16/2024	ND	2.07	104	2.00	0.356		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	3.52		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.18	109	2.00	4.66		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.50	108	6.00	4.46		
Total BTEx	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32400	16.0	10/16/2024	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	10/15/2024	ND	208	104	200	0.708	
DRO >C10-C28*	216	10.0	10/15/2024	ND	187	93.3	200	1.06	
EXT DRO >C28-C36	65.9	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 116 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 28 9' (H246214-28)**

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	10/16/2024	ND	2.07	104	2.00	0.356		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	3.52		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.18	109	2.00	4.66		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.50	108	6.00	4.46		
Total BTEx	<0.300	0.300	10/16/2024	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	13600	16.0	10/16/2024	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	10/15/2024	ND	208	104	200	0.708	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	187	93.3	200	1.06	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 121 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 29 9' (H246214-29)**

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	10/16/2024	ND	2.07	104	2.00	0.356		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	3.52		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.18	109	2.00	4.66		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.50	108	6.00	4.46		
Total BTEx	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	37200	16.0	10/16/2024	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	10/15/2024	ND	208	104	200	0.708	
DRO >C10-C28*	269	10.0	10/15/2024	ND	187	93.3	200	1.06	
EXT DRO >C28-C36	84.9	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 30 9' (H246214-30)**

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	10/16/2024	ND	2.07	104	2.00	0.356		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	3.52		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.18	109	2.00	4.66		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.50	108	6.00	4.46		
Total BTEx	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	29200	16.0	10/16/2024	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	10/15/2024	ND	208	104	200	0.708	
DRO >C10-C28*	73.9	10.0	10/15/2024	ND	187	93.3	200	1.06	
EXT DRO >C28-C36	29.2	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 31 9' (H246214-31)**

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	10/16/2024	ND	2.07	104	2.00	0.356		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	3.52		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.18	109	2.00	4.66		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.50	108	6.00	4.46		
Total BTEX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	56000	16.0	10/16/2024	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	10/15/2024	ND	208	104	200	0.708	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	187	93.3	200	1.06	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: FS 32 9' (H246214-32)**

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	10/16/2024	ND	2.07	104	2.00	0.356		
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	3.52		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.18	109	2.00	4.66		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.50	108	6.00	4.46		
Total BTEX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	14000	16.0	10/16/2024	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	10/15/2024	ND	208	104	200	0.708	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	187	93.3	200	1.06	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 01 0-4' (H246214-33)**

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	10/16/2024	ND	2.07	104	2.00	0.356	
Toluene*	<0.050	0.050	10/16/2024	ND	2.10	105	2.00	3.52	
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.18	109	2.00	4.66	
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.50	108	6.00	4.46	
Total BTEX	<0.300	0.300	10/16/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	10/16/2024	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	10/15/2024	ND	208	104	200	0.708	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	187	93.3	200	1.06	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 117 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 01 4-9' (H246214-34)**

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	10/16/2024	ND	2.07	104	2.00	2.34	
Toluene*	<0.050	0.050	10/16/2024	ND	2.01	100	2.00	2.34	
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.04	102	2.00	1.49	
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.10	102	6.00	1.36	
Total BTEX	<0.300	0.300	10/16/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	76800	16.0	10/16/2024	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	10/15/2024	ND	208	104	200	0.708	
DRO >C10-C28*	50.0	10.0	10/15/2024	ND	187	93.3	200	1.06	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 117 % 48.2-134

Surrogate: 1-Chlorooctadecane 119 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 02 0-4' (H246214-35)**

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	10/16/2024	ND	2.07	104	2.00	2.34		
Toluene*	<0.050	0.050	10/16/2024	ND	2.01	100	2.00	2.34		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.04	102	2.00	1.49		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.10	102	6.00	1.36		
Total BTEX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1520	16.0	10/16/2024	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	10/15/2024	ND	208	104	200	0.708	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	187	93.3	200	1.06	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 116 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 02 4-9' (H246214-36)**

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	10/16/2024	ND	2.07	104	2.00	2.34		
Toluene*	<0.050	0.050	10/16/2024	ND	2.01	100	2.00	2.34		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.04	102	2.00	1.49		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.10	102	6.00	1.36		
Total BTEX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	9600	16.0	10/16/2024	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	10/15/2024	ND	208	104	200	0.708	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	187	93.3	200	1.06	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 03 0-4' (H246214-37)**

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	10/16/2024	ND	2.07	104	2.00	2.34		
Toluene*	<0.050	0.050	10/16/2024	ND	2.01	100	2.00	2.34		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.04	102	2.00	1.49		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.10	102	6.00	1.36		
Total BTEx	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	26400	16.0	10/16/2024	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	10/15/2024	ND	208	104	200	0.708	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	187	93.3	200	1.06	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 03 4-9' (H246214-38)**

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	10/16/2024	ND	2.07	104	2.00	2.34	
Toluene*	<0.050	0.050	10/16/2024	ND	2.01	100	2.00	2.34	
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.04	102	2.00	1.49	
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.10	102	6.00	1.36	
Total BTEX	<0.300	0.300	10/16/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6660	16.0	10/16/2024	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	10/15/2024	ND	208	104	200	0.708	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	187	93.3	200	1.06	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 04 0-4' (H246214-39)**

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	10/16/2024	ND	2.07	104	2.00	2.34	
Toluene*	<0.050	0.050	10/16/2024	ND	2.01	100	2.00	2.34	
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.04	102	2.00	1.49	
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.10	102	6.00	1.36	
Total BTEX	<0.300	0.300	10/16/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	7600	16.0	10/16/2024	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	10/15/2024	ND	207	103	200	2.57	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	208	104	200	0.872	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.8 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 04 4-9' (H246214-40)**

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	10/16/2024	ND	2.07	104	2.00	2.34	
Toluene*	<0.050	0.050	10/16/2024	ND	2.01	100	2.00	2.34	
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.04	102	2.00	1.49	
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.10	102	6.00	1.36	
Total BTEX	<0.300	0.300	10/16/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	864	16.0	10/16/2024	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	10/15/2024	ND	207	103	200	2.57	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	208	104	200	0.872	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 124 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 05 0-4' (H246214-41)**

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	10/16/2024	ND	2.07	104	2.00	2.34		
Toluene*	<0.050	0.050	10/16/2024	ND	2.01	100	2.00	2.34		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.04	102	2.00	1.49		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.10	102	6.00	1.36		
Total BTEx	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2200	16.0	10/15/2024	ND	432	108	400	0.00	QM-07	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	207	103	200	2.57	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	208	104	200	0.872	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 98.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 05 4-9' (H246214-42)**

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	10/16/2024	ND	2.07	104	2.00	2.34	
Toluene*	<0.050	0.050	10/16/2024	ND	2.01	100	2.00	2.34	
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.04	102	2.00	1.49	
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.10	102	6.00	1.36	
Total BTEX	<0.300	0.300	10/16/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	10/15/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	207	103	200	2.57	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	208	104	200	0.872	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.2 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 06 0-4' (H246214-43)**

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	10/16/2024	ND	2.07	104	2.00	2.34		
Toluene*	<0.050	0.050	10/16/2024	ND	2.01	100	2.00	2.34		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.04	102	2.00	1.49		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.10	102	6.00	1.36		
Total BTEx	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	832	16.0	10/15/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	207	103	200	2.57	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	208	104	200	0.872	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 95.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 06 4-9' (H246214-44)**

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	10/16/2024	ND	2.07	104	2.00	2.34	
Toluene*	<0.050	0.050	10/16/2024	ND	2.01	100	2.00	2.34	
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.04	102	2.00	1.49	
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.10	102	6.00	1.36	
Total BTEX	<0.300	0.300	10/16/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2800	16.0	10/15/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	207	103	200	2.57	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	208	104	200	0.872	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 07 0-4' (H246214-45)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/16/2024	ND	2.07	104	2.00	2.34		
Toluene*	<0.050	0.050	10/16/2024	ND	2.01	100	2.00	2.34		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.04	102	2.00	1.49		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.10	102	6.00	1.36		
Total BTX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48800	16.0	10/15/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	207	103	200	2.57	
DRO >C10-C28*	10.4	10.0	10/15/2024	ND	208	104	200	0.872	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 118 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 07 4-13' (H246214-46)**

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	10/16/2024	ND	2.07	104	2.00	2.34		
Toluene*	<0.050	0.050	10/16/2024	ND	2.01	100	2.00	2.34		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.04	102	2.00	1.49		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.10	102	6.00	1.36		
Total BTEX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8000	16.0	10/15/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	207	103	200	2.57	
DRO >C10-C28*	328	10.0	10/15/2024	ND	208	104	200	0.872	
EXT DRO >C28-C36	104	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 08 0-4' (H246214-47)**

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	10/16/2024	ND	2.07	104	2.00	2.34	
Toluene*	<0.050	0.050	10/16/2024	ND	2.01	100	2.00	2.34	
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.04	102	2.00	1.49	
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.10	102	6.00	1.36	
Total BTEX	<0.300	0.300	10/16/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8660	16.0	10/15/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	207	103	200	2.57	
DRO >C10-C28*	30.8	10.0	10/15/2024	ND	208	104	200	0.872	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 08 4-13' (H246214-48)**

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	10/16/2024	ND	2.07	104	2.00	2.34		
Toluene*	<0.050	0.050	10/16/2024	ND	2.01	100	2.00	2.34		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.04	102	2.00	1.49		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.10	102	6.00	1.36		
Total BTEx	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	17800	16.0	10/15/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	207	103	200	2.57	
DRO >C10-C28*	65.7	10.0	10/15/2024	ND	208	104	200	0.872	
EXT DRO >C28-C36	11.4	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 86.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.7 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 09 0-4' (H246214-49)**

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	10/16/2024	ND	2.07	104	2.00	2.34		
Toluene*	<0.050	0.050	10/16/2024	ND	2.01	100	2.00	2.34		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.04	102	2.00	1.49		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.10	102	6.00	1.36		
Total BTEx	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	68000	16.0	10/15/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	207	103	200	2.57	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	208	104	200	0.872	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 09 4-13' (H246214-50)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/16/2024	ND	2.07	104	2.00	2.34		
Toluene*	<0.050	0.050	10/16/2024	ND	2.01	100	2.00	2.34		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.04	102	2.00	1.49		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.10	102	6.00	1.36		
Total BTX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	40000	16.0	10/15/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	207	103	200	2.57	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	208	104	200	0.872	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 10 0-4' (H246214-51)**

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	10/16/2024	ND	2.07	104	2.00	2.34	
Toluene*	<0.050	0.050	10/16/2024	ND	2.01	100	2.00	2.34	
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.04	102	2.00	1.49	
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.10	102	6.00	1.36	
Total BTEX	<0.300	0.300	10/16/2024	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	22400	16.0	10/15/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	207	103	200	2.57	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	208	104	200	0.872	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 10 4-13' (H246214-52)**

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	10/16/2024	ND	2.07	104	2.00	2.34		
Toluene*	<0.050	0.050	10/16/2024	ND	2.01	100	2.00	2.34		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.04	102	2.00	1.49		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.10	102	6.00	1.36		
Total BTEX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	90600	16.0	10/15/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	207	103	200	2.57	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	208	104	200	0.872	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 98.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.8 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 11 0-4' (H246214-53)**

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	10/16/2024	ND	2.07	104	2.00	2.34		
Toluene*	<0.050	0.050	10/16/2024	ND	2.01	100	2.00	2.34		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.04	102	2.00	1.49		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.10	102	6.00	1.36		
Total BTEX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8800	16.0	10/15/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	207	103	200	2.57	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	208	104	200	0.872	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 11 4-13' (H246214-54)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/16/2024	ND	2.08	104	2.00	1.80		
Toluene*	<0.050	0.050	10/16/2024	ND	2.09	104	2.00	2.21		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.13	106	2.00	1.91		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.33	106	6.00	1.79		
Total BTX	<0.300	0.300	10/16/2024	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	26400	16.0	10/15/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	207	103	200	2.57	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	208	104	200	0.872	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 12 0-4' (H246214-55)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/16/2024	ND	2.08	104	2.00	1.80		
Toluene*	<0.050	0.050	10/16/2024	ND	2.09	104	2.00	2.21		
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.13	106	2.00	1.91		
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.33	106	6.00	1.79		
Total BTX	<0.300	0.300	10/16/2024	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	40000	16.0	10/15/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	207	103	200	2.57	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	208	104	200	0.872	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 96.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 12 4-13' (H246214-56)**

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	10/16/2024	ND	2.08	104	2.00	1.80	
Toluene*	<0.050	0.050	10/16/2024	ND	2.09	104	2.00	2.21	
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.13	106	2.00	1.91	
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.33	106	6.00	1.79	
Total BTEX	<0.300	0.300	10/16/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32000	16.0	10/15/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	207	103	200	2.57	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	208	104	200	0.872	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 13 9-13' (H246214-57)**

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	10/16/2024	ND	2.08	104	2.00	1.80	
Toluene*	<0.050	0.050	10/16/2024	ND	2.09	104	2.00	2.21	
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.13	106	2.00	1.91	
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.33	106	6.00	1.79	
Total BTEX	<0.300	0.300	10/16/2024	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	64000	16.0	10/15/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	207	103	200	2.57	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	208	104	200	0.872	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/11/2024  
 Reported: 10/17/2024  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

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

**Sample ID: SW 14 9-13' (H246214-58)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/16/2024	ND	2.08	104	2.00	1.80	
Toluene*	<0.050	0.050	10/16/2024	ND	2.09	104	2.00	2.21	
Ethylbenzene*	<0.050	0.050	10/16/2024	ND	2.13	106	2.00	1.91	
Total Xylenes*	<0.150	0.150	10/16/2024	ND	6.33	106	6.00	1.79	
Total BTX	<0.300	0.300	10/16/2024	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	29200	16.0	10/15/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2024	ND	207	103	200	2.57	
DRO >C10-C28*	<10.0	10.0	10/15/2024	ND	208	104	200	0.872	
EXT DRO >C28-C36	<10.0	10.0	10/15/2024	ND					

Surrogate: 1-Chlorooctane 97.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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

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

Celey D. Keene, Lab Director/Quality Manager





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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]





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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2066

Company Name: Ensolum, LLC

Project Manager: Kelly Lowery

Address: 601 N Marientfeld Street, Suite 400

City: Midland

State: TX Zip: 79701

Phone #: 214-733-3165

Fax #:

Project #: 03B1417144

Project Owner:

Project Name: Shell State 1C CTB

Project Location: Lea County, NM

Sampler Name: Tabitha Guadian/Azuka Udeh

BILL TO

P.O. #: Oxy, USA, Inc.

Attn: Wade Dittich

Address:

City:

State: Zip:

Phone #

Fax #:

ANALYSIS REQUEST

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)COMP.	# CONTAINERS	MATRIX						PRESERV.		DATE	TIME	ANALYSIS REQUEST		
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL			OTHER :	BTEX 8021B	TPH 8015M
H246214	F311	13'	C	1								10/10/24	12:18	X	X	X	
	F312	13'	C	1								10/10/24	12:20	X	X	X	
	F313	9'	C	1								10/10/24	12:22	X	X	X	
	F314	9'	C	1								10/10/24	12:24	X	X	X	
	F315	9'	C	1								10/10/24	12:26	X	X	X	
	F316	9'	C	1								10/10/24	12:28	X	X	X	
	F317	9'	C	1								10/10/24	12:30	X	X	X	
	F318	9'	C	1								10/10/24	12:32	X	X	X	
	F319	9'	C	1								10/10/24	12:34	X	X	X	
	F320	9'	C	1								10/10/24	12:36	X	X	X	

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Relinquished By:

Date: 10/11/24

Received By:

Verbal Result: ☐ Yes ☐ No

All Results are emailed. Please provide Email address:

REMARKS: klowery@ensolum.com

Relinquished By:

Date: 10/11/24

Received By:

Verbal Result: ☐ Yes ☐ No

Delivered By: (Circle One)

Observed Temp.: 08.5

Sample Condition

CHECKED BY: (Initials)

Turnaround Time: 140

Standard

Bacteria (only)

Sample Condition

Sampler - UPS - Bus - Other:

Corrected Temp.: 08.2

Sample Condition

CHECKED BY: (Initials)

Turnaround Time: 140

Standard

Bacteria (only)

Sample Condition

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





## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

306

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





## 4 or 6

Page 64 of 66





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: Kelly Lowery

Address: 601 N Marlenfeld Street, Suite 400

City: Midland State: TX Zip: 79701

Phone #: 214-733-3165 Fax #:

Project #: 03B1417144 Project Owner:

Project Name: Shell State 1C CTB

Project Location: Lea County, NM

Sample Name: Tabitha Guadian/Azuka Udeh

FOR LAB USE ONLY

BILL TO

P.O. #: Oxy, USA, Inc.

Attn: Wade Dittich

Address:

City:

State: Zip:

Phone #

Fax #:

ANALYSIS REQUEST

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)COMP.	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS REQUEST					
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :			BTEX 8021B	TPH 8015M	Chlorides 4500			
41	SW05	0-4'	C	1	X						10/10/24	1108	X	X	X			
42	SW05	4-9'	C	1	X						10/10/24	1110	X	X	X			
43	SW06	0-4'	C	1	X						10/10/24	1112	X	X	X			
44	SW06	4-9'	C	1	X						10/10/24	1114	X	X	X			
45	SW07	0-4'	C	1	X						10/10/24	1128	X	X	X			
46	SW07	4-9'	C	1	X						10/10/24	1130	X	X	X			
47	SW08	0-4'	C	1	X						10/10/24	1149	X	X	X			
48	SW08	4-9'	C	1	X						10/10/24	1150	X	X	X			
49	SW09	0-4'	C	1	X						10/10/24	1152	X	X	X			
50	SW09	4-9'	C	1	X						10/10/24	1152	X	X	X			

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Relinquished By:

Date: 10/11/24 Time: 12:00

Received By:

Date: 10/11/24 Time: 1355

Relinquished By:

Date: 10/11/24 Time: 1355

Received By:

Date: 10/11/24 Time: 1355

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

Observed Temp.:

Corrected Temp.:

Sample Condition

Cool Intact

Checked By:

Initials

Turnaround Time:

Thermometer ID #113

Standard

Rush

Bacteria (only) Sample Condition

Cool Intact

Observed Temp.:

Corrected Temp.:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:





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

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

6046

Page 66 of 66



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

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January 28, 2025

KELLY LOWERY

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: SHELL STATE 1C CTB

Enclosed are the results of analyses for samples received by the laboratory on 01/24/25 13:11.

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 with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/22/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 01 17' (H250446-01)**

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	01/27/2025	ND	2.16	108	2.00	2.08		
Toluene*	<0.050	0.050	01/27/2025	ND	2.20	110	2.00	2.81		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.18	109	2.00	2.28		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	6.60	110	6.00	1.74		
Total BTEX	<0.300	0.300	01/27/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4000	16.0	01/28/2025	ND	416	104	400	3.77	QM-07	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/27/2025	ND	232	116	200	3.49	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	228	114	200	1.86	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 91.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.5 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/22/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 02 17' (H250446-02)**

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	01/27/2025	ND	2.16	108	2.00	2.08	
Toluene*	<0.050	0.050	01/27/2025	ND	2.20	110	2.00	2.81	
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.18	109	2.00	2.28	
Total Xylenes*	<0.150	0.150	01/27/2025	ND	6.60	110	6.00	1.74	
Total BTEX	<0.300	0.300	01/27/2025	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1600	16.0	01/28/2025	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	01/27/2025	ND	232	116	200	3.49	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	228	114	200	1.86	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 98.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.4 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/22/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 03 15' (H250446-03)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/27/2025	ND	2.16	108	2.00	2.08		
Toluene*	<0.050	0.050	01/27/2025	ND	2.20	110	2.00	2.81		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.18	109	2.00	2.28		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	6.60	110	6.00	1.74		
Total BTX	<0.300	0.300	01/27/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	992	16.0	01/28/2025	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	01/27/2025	ND	232	116	200	3.49	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	228	114	200	1.86	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 94.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/22/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 04 15' (H250446-04)**

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	01/27/2025	ND	2.16	108	2.00	2.08		
Toluene*	<0.050	0.050	01/27/2025	ND	2.20	110	2.00	2.81		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.18	109	2.00	2.28		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	6.60	110	6.00	1.74		
Total BTEX	<0.300	0.300	01/27/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2000	16.0	01/28/2025	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	01/27/2025	ND	232	116	200	3.49	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	228	114	200	1.86	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 99.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.7 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/22/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 05 15' (H250446-05)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/27/2025	ND	2.16	108	2.00	2.08		
Toluene*	<0.050	0.050	01/27/2025	ND	2.20	110	2.00	2.81		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.18	109	2.00	2.28		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	6.60	110	6.00	1.74		
Total BTX	<0.300	0.300	01/27/2025	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	6880	16.0	01/28/2025	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	01/27/2025	ND	232	116	200	3.49	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	228	114	200	1.86	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 99.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.4 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/22/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 06 15' (H250446-06)**

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	01/27/2025	ND	2.16	108	2.00	2.08		
Toluene*	<0.050	0.050	01/27/2025	ND	2.20	110	2.00	2.81		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.18	109	2.00	2.28		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	6.60	110	6.00	1.74		
Total BTEx	<0.300	0.300	01/27/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	528	16.0	01/28/2025	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	01/27/2025	ND	232	116	200	3.49	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	228	114	200	1.86	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 93.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.6 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/22/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 07 15' (H250446-07)**

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	01/27/2025	ND	2.16	108	2.00	2.08		
Toluene*	<0.050	0.050	01/27/2025	ND	2.20	110	2.00	2.81		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.18	109	2.00	2.28		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	6.60	110	6.00	1.74		
Total BTEx	<0.300	0.300	01/27/2025	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	15800	16.0	01/28/2025	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	01/27/2025	ND	232	116	200	3.49	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	228	114	200	1.86	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 91.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.3 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/22/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 08 15' (H250446-08)**

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	01/27/2025	ND	2.16	108	2.00	2.08		
Toluene*	<0.050	0.050	01/27/2025	ND	2.20	110	2.00	2.81		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.18	109	2.00	2.28		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	6.60	110	6.00	1.74		
Total BTEX	<0.300	0.300	01/27/2025	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	13400	16.0	01/28/2025	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	01/27/2025	ND	232	116	200	3.49	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	228	114	200	1.86	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 96.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/22/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 10 15' (H250446-09)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/27/2025	ND	2.16	108	2.00	2.08		
Toluene*	<0.050	0.050	01/27/2025	ND	2.20	110	2.00	2.81		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.18	109	2.00	2.28		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	6.60	110	6.00	1.74		
Total BTX	<0.300	0.300	01/27/2025	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	11900	16.0	01/28/2025	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	01/27/2025	ND	232	116	200	3.49	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	228	114	200	1.86	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 94.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/22/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 11 15' (H250446-10)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/27/2025	ND	2.16	108	2.00	2.08	
Toluene*	<0.050	0.050	01/27/2025	ND	2.20	110	2.00	2.81	
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.18	109	2.00	2.28	
Total Xylenes*	<0.150	0.150	01/27/2025	ND	6.60	110	6.00	1.74	
Total BTX	<0.300	0.300	01/27/2025	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	10000	16.0	01/28/2025	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	01/27/2025	ND	232	116	200	3.49	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	228	114	200	1.86	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 94.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/22/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 12 15' (H250446-11)**

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	01/27/2025	ND	2.16	108	2.00	2.08		
Toluene*	<0.050	0.050	01/27/2025	ND	2.20	110	2.00	2.81		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.18	109	2.00	2.28		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	6.60	110	6.00	1.74		
Total BTEx	<0.300	0.300	01/27/2025	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	8930	16.0	01/28/2025	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	01/27/2025	ND	232	116	200	3.49	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	228	114	200	1.86	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 94.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/24/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 13 11' (H250446-12)**

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	01/27/2025	ND	2.16	108	2.00	2.08		
Toluene*	<0.050	0.050	01/27/2025	ND	2.20	110	2.00	2.81		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.18	109	2.00	2.28		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	6.60	110	6.00	1.74		
Total BTEX	<0.300	0.300	01/27/2025	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	10000	16.0	01/28/2025	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	01/27/2025	ND	232	116	200	3.49	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	228	114	200	1.86	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 97.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/24/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 14 11' (H250446-13)**

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	01/27/2025	ND	2.16	108	2.00	2.08		
Toluene*	<0.050	0.050	01/27/2025	ND	2.20	110	2.00	2.81		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.18	109	2.00	2.28		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	6.60	110	6.00	1.74		
Total BTEX	<0.300	0.300	01/27/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	11100	16.0	01/28/2025	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	01/27/2025	ND	232	116	200	3.49	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	228	114	200	1.86	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 95.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/24/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 15 13' (H250446-14)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/27/2025	ND	2.16	108	2.00	2.08		
Toluene*	<0.050	0.050	01/27/2025	ND	2.20	110	2.00	2.81		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.18	109	2.00	2.28		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	6.60	110	6.00	1.74		
Total BTX	<0.300	0.300	01/27/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	13500	16.0	01/28/2025	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	01/27/2025	ND	232	116	200	3.49	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	228	114	200	1.86	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/24/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 16 13' (H250446-15)**

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	01/27/2025	ND	2.16	108	2.00	2.08		
Toluene*	<0.050	0.050	01/27/2025	ND	2.20	110	2.00	2.81		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.18	109	2.00	2.28		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	6.60	110	6.00	1.74		
Total BTEx	<0.300	0.300	01/27/2025	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	20600	16.0	01/28/2025	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	01/27/2025	ND	232	116	200	3.49	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	228	114	200	1.86	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 96.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/24/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 17 11' (H250446-16)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/27/2025	ND	2.16	108	2.00	2.08		
Toluene*	<0.050	0.050	01/27/2025	ND	2.20	110	2.00	2.81		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.18	109	2.00	2.28		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	6.60	110	6.00	1.74		
Total BTX	<0.300	0.300	01/27/2025	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	18800	16.0	01/28/2025	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	01/27/2025	ND	232	116	200	3.49	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	228	114	200	1.86	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 97.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.4 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/24/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 18 11' (H250446-17)**

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	01/27/2025	ND	2.16	108	2.00	2.08		
Toluene*	<0.050	0.050	01/27/2025	ND	2.20	110	2.00	2.81		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.18	109	2.00	2.28		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	6.60	110	6.00	1.74		
Total BTEX	<0.300	0.300	01/27/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10200	16.0	01/28/2025	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	01/27/2025	ND	199	99.4	200	4.45	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	208	104	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 98.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/24/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 19 11' (H250446-18)**

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	01/27/2025	ND	2.16	108	2.00	2.08		
Toluene*	<0.050	0.050	01/27/2025	ND	2.20	110	2.00	2.81		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.18	109	2.00	2.28		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	6.60	110	6.00	1.74		
Total BTEx	<0.300	0.300	01/27/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6880	16.0	01/28/2025	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	01/27/2025	ND	199	99.4	200	4.45	
DRO >C10-C28*	10.6	10.0	01/27/2025	ND	208	104	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 94.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/24/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 20 11' (H250446-19)**

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	01/27/2025	ND	2.16	108	2.00	2.08		
Toluene*	<0.050	0.050	01/27/2025	ND	2.20	110	2.00	2.81		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.18	109	2.00	2.28		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	6.60	110	6.00	1.74		
Total BTEX	<0.300	0.300	01/27/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	17000	16.0	01/28/2025	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	01/27/2025	ND	199	99.4	200	4.45	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	208	104	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 97.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/24/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 21 13' (H250446-20)**

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	01/27/2025	ND	2.25	112	2.00	1.64		
Toluene*	<0.050	0.050	01/27/2025	ND	2.35	117	2.00	3.37		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.43	121	2.00	3.67		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	7.27	121	6.00	4.09		
Total BTEx	<0.300	0.300	01/27/2025	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	16600	16.0	01/28/2025	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	01/27/2025	ND	199	99.4	200	4.45	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	208	104	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 92.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/24/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 22 13' (H250446-21)**

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	01/27/2025	ND	2.25	112	2.00	1.64		
Toluene*	<0.050	0.050	01/27/2025	ND	2.35	117	2.00	3.37		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.43	121	2.00	3.67		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	7.27	121	6.00	4.09		
Total BTEx	<0.300	0.300	01/27/2025	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	18000	16.0	01/28/2025	ND	400	100	400	7.69	QM-07	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/27/2025	ND	199	99.4	200	4.45	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	208	104	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 97.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/24/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 27 13' (H250446-22)**

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	01/27/2025	ND	2.25	112	2.00	1.64		
Toluene*	<0.050	0.050	01/27/2025	ND	2.35	117	2.00	3.37		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.43	121	2.00	3.67		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	7.27	121	6.00	4.09		
Total BTEx	<0.300	0.300	01/27/2025	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	7680	16.0	01/28/2025	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	01/27/2025	ND	199	99.4	200	4.45	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	208	104	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 118 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/24/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 29 11' (H250446-23)**

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	01/27/2025	ND	2.25	112	2.00	1.64		
Toluene*	<0.050	0.050	01/27/2025	ND	2.35	117	2.00	3.37		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.43	121	2.00	3.67		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	7.27	121	6.00	4.09		
Total BTEX	<0.300	0.300	01/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 122 % 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	11800	16.0	01/28/2025	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	01/27/2025	ND	199	99.4	200	4.45	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	208	104	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 95.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/24/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 30 11' (H250446-24)**

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	01/27/2025	ND	2.25	112	2.00	1.64		
Toluene*	<0.050	0.050	01/27/2025	ND	2.35	117	2.00	3.37		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.43	121	2.00	3.67		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	7.27	121	6.00	4.09		
Total BTEX	<0.300	0.300	01/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 124 % 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	2920	16.0	01/28/2025	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	01/27/2025	ND	199	99.4	200	4.45	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	208	104	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 96.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.5 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/24/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 31 11' (H250446-25)**

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	01/27/2025	ND	2.25	112	2.00	1.64		
Toluene*	<0.050	0.050	01/27/2025	ND	2.35	117	2.00	3.37		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.43	121	2.00	3.67		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	7.27	121	6.00	4.09		
Total BTEx	<0.300	0.300	01/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 124 % 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	1100	16.0	01/28/2025	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	01/27/2025	ND	199	99.4	200	4.45	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	208	104	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 96.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/24/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 32 15' (H250446-26)**

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	01/27/2025	ND	2.25	112	2.00	1.64		
Toluene*	<0.050	0.050	01/27/2025	ND	2.35	117	2.00	3.37		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.43	121	2.00	3.67		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	7.27	121	6.00	4.09		
Total BTEx	<0.300	0.300	01/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 126 % 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	4640	16.0	01/28/2025	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	01/27/2025	ND	199	99.4	200	4.45	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	208	104	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 92.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.3 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/24/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 33 15' (H250446-27)**

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	01/27/2025	ND	2.25	112	2.00	1.64		
Toluene*	<0.050	0.050	01/27/2025	ND	2.35	117	2.00	3.37		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.43	121	2.00	3.67		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	7.27	121	6.00	4.09		
Total BTEx	<0.300	0.300	01/27/2025	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	3080	16.0	01/28/2025	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	01/27/2025	ND	199	99.4	200	4.45	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	208	104	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 95.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/24/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 01 4-15' (H250446-28)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/27/2025	ND	2.25	112	2.00	1.64		
Toluene*	<0.050	0.050	01/27/2025	ND	2.35	117	2.00	3.37		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.43	121	2.00	3.67		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	7.27	121	6.00	4.09		
Total BTX	<0.300	0.300	01/27/2025	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	1090	16.0	01/28/2025	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	01/27/2025	ND	199	99.4	200	4.45	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	208	104	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 96.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/23/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 02 0-4' (H250446-29)**

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	01/27/2025	ND	2.25	112	2.00	1.64		
Toluene*	<0.050	0.050	01/27/2025	ND	2.35	117	2.00	3.37		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.43	121	2.00	3.67		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	7.27	121	6.00	4.09		
Total BTEx	<0.300	0.300	01/27/2025	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	48.0	16.0	01/28/2025	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	01/27/2025	ND	199	99.4	200	4.45	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	208	104	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 99.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.9 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/23/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 03 0-4' (H250446-30)**

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	01/27/2025	ND	2.25	112	2.00	1.64		
Toluene*	<0.050	0.050	01/27/2025	ND	2.35	117	2.00	3.37		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.43	121	2.00	3.67		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	7.27	121	6.00	4.09		
Total BTEX	<0.300	0.300	01/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 126 % 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	01/28/2025	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	01/27/2025	ND	199	99.4	200	4.45	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	208	104	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 82.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/23/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 04 0-4' (H250446-31)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/27/2025	ND	2.25	112	2.00	1.64		
Toluene*	<0.050	0.050	01/27/2025	ND	2.35	117	2.00	3.37		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	2.43	121	2.00	3.67		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	7.27	121	6.00	4.09		
Total BTX	<0.300	0.300	01/27/2025	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	<16.0	16.0	01/28/2025	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	01/27/2025	ND	199	99.4	200	4.45	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	208	104	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 93.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.8 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/23/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 05 0-4' (H250446-32)**

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	01/27/2025	ND	1.99	99.4	2.00	3.27		
Toluene*	<0.050	0.050	01/27/2025	ND	2.06	103	2.00	3.27		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	1.96	97.8	2.00	3.02		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	5.72	95.3	6.00	3.26		
Total BTEX	<0.300	0.300	01/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.9 % 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	16.0	16.0	01/28/2025	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	01/27/2025	ND	199	99.4	200	4.45	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	208	104	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/23/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 06 0-4' (H250446-33)**

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	01/27/2025	ND	1.99	99.4	2.00	3.27		
Toluene*	<0.050	0.050	01/27/2025	ND	2.06	103	2.00	3.27		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	1.96	97.8	2.00	3.02		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	5.72	95.3	6.00	3.26		
Total BTEX	<0.300	0.300	01/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.8 % 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	32.0	16.0	01/28/2025	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	01/27/2025	ND	199	99.4	200	4.45	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	208	104	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 91.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/23/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 07 0-4' (H250446-34)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/27/2025	ND	1.99	99.4	2.00	3.27		
Toluene*	<0.050	0.050	01/27/2025	ND	2.06	103	2.00	3.27		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	1.96	97.8	2.00	3.02		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	5.72	95.3	6.00	3.26		
Total BTX	<0.300	0.300	01/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.2 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	01/28/2025	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	01/27/2025	ND	199	99.4	200	4.45	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	208	104	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 97.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/23/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 08 0-4' (H250446-35)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/27/2025	ND	1.99	99.4	2.00	3.27		
Toluene*	<0.050	0.050	01/27/2025	ND	2.06	103	2.00	3.27		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	1.96	97.8	2.00	3.02		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	5.72	95.3	6.00	3.26		
Total BTX	<0.300	0.300	01/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.8 % 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	32.0	16.0	01/28/2025	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	01/27/2025	ND	199	99.4	200	4.45	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	208	104	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 90.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/23/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 09 0-4' (H250446-36)**

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	01/27/2025	ND	1.99	99.4	2.00	3.27		
Toluene*	<0.050	0.050	01/27/2025	ND	2.06	103	2.00	3.27		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	1.96	97.8	2.00	3.02		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	5.72	95.3	6.00	3.26		
Total BTEX	<0.300	0.300	01/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.4 % 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	32.0	16.0	01/28/2025	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	01/27/2025	ND	199	99.4	200	4.45	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	208	104	200	5.31	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/23/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 10 0-4' (H250446-37)**

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	01/27/2025	ND	1.99	99.4	2.00	3.27		
Toluene*	<0.050	0.050	01/27/2025	ND	2.06	103	2.00	3.27		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	1.96	97.8	2.00	3.02		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	5.72	95.3	6.00	3.26		
Total BTEX	<0.300	0.300	01/27/2025	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	
Chloride	80.0	16.0	01/28/2025	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	01/27/2025	ND	187	93.3	200	1.23	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	209	105	200	1.24	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 84.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/23/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 11 0-4' (H250446-38)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/27/2025	ND	1.99	99.4	2.00	3.27		
Toluene*	<0.050	0.050	01/27/2025	ND	2.06	103	2.00	3.27		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	1.96	97.8	2.00	3.02		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	5.72	95.3	6.00	3.26		
Total BTX	<0.300	0.300	01/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	01/28/2025	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	01/27/2025	ND	187	93.3	200	1.23	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	209	105	200	1.24	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 81.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/23/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 12 0-4' (H250446-39)**

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	01/27/2025	ND	1.99	99.4	2.00	3.27		
Toluene*	<0.050	0.050	01/27/2025	ND	2.06	103	2.00	3.27		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	1.96	97.8	2.00	3.02		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	5.72	95.3	6.00	3.26		
Total BTEX	<0.300	0.300	01/27/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	01/28/2025	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	01/27/2025	ND	187	93.3	200	1.23	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	209	105	200	1.24	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 87.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/23/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 09 4-15' (H250446-40)**

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	01/27/2025	ND	1.99	99.4	2.00	3.27		
Toluene*	<0.050	0.050	01/27/2025	ND	2.06	103	2.00	3.27		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	1.96	97.8	2.00	3.02		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	5.72	95.3	6.00	3.26		
Total BTEx	<0.300	0.300	01/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.0 % 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	10000	16.0	01/28/2025	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	01/27/2025	ND	187	93.3	200	1.23	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	209	105	200	1.24	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 79.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/23/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 10 4-15' (H250446-41)**

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	01/27/2025	ND	1.99	99.4	2.00	3.27		
Toluene*	<0.050	0.050	01/27/2025	ND	2.06	103	2.00	3.27		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	1.96	97.8	2.00	3.02		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	5.72	95.3	6.00	3.26		
Total BTEX	<0.300	0.300	01/27/2025	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	6000	16.0	01/27/2025	ND	416	104	400	0.00	QM-07	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/27/2025	ND	187	93.3	200	1.23	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	209	105	200	1.24	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 81.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.3 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/23/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 11 4-15' (H250446-42)**

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	01/27/2025	ND	1.99	99.4	2.00	3.27		
Toluene*	<0.050	0.050	01/27/2025	ND	2.06	103	2.00	3.27		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	1.96	97.8	2.00	3.02		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	5.72	95.3	6.00	3.26		
Total BTEX	<0.300	0.300	01/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	10700	16.0	01/28/2025	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	01/27/2025	ND	187	93.3	200	1.23	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	209	105	200	1.24	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 85.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 01/24/2025  
 Reported: 01/28/2025  
 Project Name: SHELL STATE 1C CTB  
 Project Number: 03B1417144  
 Project Location: OXY - LEA CO NM

Sampling Date: 01/23/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 12 4-15' (H250446-43)**

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	01/27/2025	ND	1.99	99.4	2.00	3.27		
Toluene*	<0.050	0.050	01/27/2025	ND	2.06	103	2.00	3.27		
Ethylbenzene*	<0.050	0.050	01/27/2025	ND	1.96	97.8	2.00	3.02		
Total Xylenes*	<0.150	0.150	01/27/2025	ND	5.72	95.3	6.00	3.26		
Total BTEX	<0.300	0.300	01/27/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.5 % 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	13300	16.0	01/28/2025	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	01/27/2025	ND	187	93.3	200	1.23	
DRO >C10-C28*	<10.0	10.0	01/27/2025	ND	209	105	200	1.24	
EXT DRO >C28-C36	<10.0	10.0	01/27/2025	ND					

Surrogate: 1-Chlorooctane 84.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.8 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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Notes and Definitions

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

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A handwritten signature in black ink, appearing to read "C. 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				<b>BILL TO</b>				ANALYSIS REQUEST																						
Project Manager: Kelly Lowery				P.O. #:																										
Address: 601 N. Marland St. STE 400				Company: Oxy																										
City: Midland State: TX Zip: 79701				Attn: Wade D. Smith																										
Phone #: 214-733-3165 Email: Klowery@ensolum.com				Address:																										
Project #: 03B1417144 Project Owner: Oxy				City:																										
Project Name: Shell Store 1C QTB				State: Zip:																										
Project Location: Cee Co. Plm				Phone #:																										
Sample Name: Sher D. 114				Email:																										
FOR LAB USE ONLY																														
Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX					PRESERV.	SAMPLING																			
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME															
HS0446	ES-01	17	C 1	X	X	X	X	X	X	X	X	X	X	1-22-25	1135	TPH 8015	BTEX 80216	Chlorides 4500												
1	ES-02	17	C 1	X	X	X	X	X	X	X	X	X	X	1-22-25	1132	X	X	X												
2	ES-03	15	C 1	X	X	X	X	X	X	X	X	X	X	1-22-25	1147	X	X	X												
3	ES-04	15	C 1	X	X	X	X	X	X	X	X	X	X	1-22-25	1149	X	X	X												
4	ES-05	15	C 1	X	X	X	X	X	X	X	X	X	X	1-22-25	1155	X	X	X												
5	ES-06	15	C 1	X	X	X	X	X	X	X	X	X	X	1-22-25	1157	X	X	X												
6	ES-07	15	C 1	X	X	X	X	X	X	X	X	X	X	1-22-25	1159	X	X	X												
7	ES-08	15	C 1	X	X	X	X	X	X	X	X	X	X	1-22-25	1201	X	X	X												
8	ES-09	14	C 1	X	X	X	X	X	X	X	X	X	X	1-22-25	1203	X	X	X												
9	ES-10	13	C 1	X	X	X	X	X	X	X	X	X	X	1-22-25	1203	X	X	X												
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Relinquished By: <i>[Signature]</i>				Date: 1-25-25				Received By: <i>[Signature]</i>				Date: 1-25-25				Time: 1311				REMARKS: Paykey/AE/NO/AF:										
Relinquished By: <i>[Signature]</i>				Date: 1-25-25				Received By: <i>[Signature]</i>				Date: 1-25-25				Time: 1311				REMARKS: Paykey/AE/NO/AF:										
Delivered By: (Circle One) Sampler - UPS - Bus - Other:				Observed Temp. °C Corrected Temp. °C				Sample Condition Cool Intact <input checked="" type="checkbox"/> No <input type="checkbox"/>				CHECKED BY: (Initials) <i>[Signature]</i>				Thermometer ID: #119 Correction Factor: -0.1°C				Add'l Phone #:										
				1.5°C				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				<i>[Signature]</i>								<input type="checkbox"/> Yes <input type="checkbox"/> No										

FORM-006 R 3.2 10/07/21

† Cardenal cannot accept verbal changes. Please email changes to celey.keene@cardenallabsnm.com

1 of 5



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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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[illegible]





CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

3 of 5

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

Company Name: Ensolum, LLC		P.O. #:		BILL TO		ANALYSIS REQUEST	
Project Manager: Kelly Lowery		City: Midland		State: TX Zip: 79701		Company: OKY	
Address: 601 N. Marland St. STE 400		City: Midland		State: TX Zip: 79701		Attn: Wade D. Pirrie	
Phone #: 214-733-3165		Email: Klowery@ensolum.com		Address:		City:	
Project #: 0381417144		Project Owner: OKY		State:		Zip:	
Project Name: Skelton Street LC CTB		City:		State:		Zip:	
Project Location: Levee Co. NM		Phone #:		Email:			
Sample Name: Skelton Diller		Matrix:		PRESERV.		SAMPLING	
FOR LAB USE ONLY		GROUNDWATER		WASTEWATER		SOIL	
OIL		SLUDGE		OTHER:		ACID/BASE:	
ICE / COOL		OTHER:		DATE		TIME	
Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	DATE	TIME	
11050444	ES-21	13	C 1	X	1-24-25	9:56	TPH 8015
20	ES-22	13	C 1	X	1-24-25	9:58	BTE x 80216
21	ES-27	13	C 1	X	1-24-25	10:00	Chlorides 4500
22	ES-24	11	C 1	X	1-24-25	9:38	
23	ES-30	11	C 1	X	1-24-25	9:46	
24	ES-31	11	C 1	X	1-24-25	9:28	
25	ES-32	15	C 1	X	1-24-25	10:04	
26	ES-33	15	C 1	X	1-24-25	10:06	
27	SW-61	4-15	C 1	X	1-24-25	10:08	
28	SW-62	0-4	C 1	X	1-23-25	14:34	
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Relinquished By: [Signature]		Date: 4/25		Received By: [Signature]		Date: 4/25	
Time: 1311		Time: 1311		Time: 1311		Time: 1311	
Delivered By: (Circle One)		Observed Temp. °C		Corrected Temp. °C		Sample Condition	
Cool Impact		Cool Impact		Cool Impact		Cool Impact	
No		No		No		No	
Yes		Yes		Yes		Yes	
Sample - UPS - Bus - Other:		1.5c		2.1c		2.1c	
CHECKED BY: [Signature]		CHECKED BY: [Signature]		CHECKED BY: [Signature]		CHECKED BY: [Signature]	
Thermometer ID: 4413		Thermometer ID: 4413		Thermometer ID: 4413		Thermometer ID: 4413	
Correction Factor: -0.10		Correction Factor: -0.10		Correction Factor: -0.10		Correction Factor: -0.10	
Turnaround Time: Standard		Turnaround Time: Standard		Turnaround Time: Standard		Turnaround Time: Standard	
Cool Impact		Cool Impact		Cool Impact		Cool Impact	
No		No		No		No	
Yes		Yes		Yes		Yes	
Verbal Result: Yes No		Verbal Result: Yes No		Verbal Result: Yes No		Verbal Result: Yes No	
All Results are emailed. Please provide Email address: Klowery@ensolum.com / Bjerrings@ensolum.com		All Results are emailed. Please provide Email address: Klowery@ensolum.com / Bjerrings@ensolum.com		All Results are emailed. Please provide Email address: Klowery@ensolum.com / Bjerrings@ensolum.com		All Results are emailed. Please provide Email address: Klowery@ensolum.com / Bjerrings@ensolum.com	
REMARKS: Pykrete/NonAF: [Signature]		REMARKS: Pykrete/NonAF: [Signature]		REMARKS: Pykrete/NonAF: [Signature]		REMARKS: Pykrete/NonAF: [Signature]	

FORM-006 R 3.2 10/07/21

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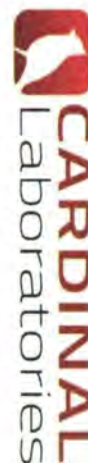
101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

4 of 5

Company Name: Ensolum, LLC										P.O. #:										BILL TO										ANALYSIS REQUEST																			
Project Manager: Kelly Lowery										Company: Oxy																																							
Address: 601 N. Marlenfield St. STE 400										Attn: Wade D. Birrell																																							
City: Midland State: TX Zip: 79701										Address:																																							
Phone #: 214-733-3165 Email: Mowery@ensolum.com																																																	
Project #: 0381417144 Project Owner: Oxy										City:																																							
Project Name: Shell Steam IC BTB										State:										Zip:																													
Project Location: 444 Co Plan										Phone #:																																							
Sample Name: 3444 D. 114										Email:																																							
FOR LAB USE ONLY										MATRIX										PRESERV.										SAMPLING																			
Lab I.D.										Sample I.D.										Sample Depth (feet)										(G)RAB OR (C)OMP.																			
HSC444										30										0-4										C										# CONTAINERS									
										31										0-4										C										GROUNDWATER									
										32										0-4										C										WASTEWATER									
										33										0-4										C										SOIL									
										34										0-4										C										OIL									
										35										0-4										C										SLUDGE									
										36										0-4										C										OTHER:									
										37										0-4										C										ACID/BASE:									
										38										0-4										C										ICE / COOL									
										39										0-4										C										OTHER:									
										40										0-4										C										DATE									
										41										0-4										C										TIME									
										42										0-4										C										TPH 8015									
										43										0-4										C										BTEX 8021b									
										44										0-4										C										Chloride 4500									
										45										0-4										C																			
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										94																																							





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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

595

[illegible]

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

---

February 11, 2025

KELLY LOWERY

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: SHELL STATE 1C CTB

Enclosed are the results of analyses for samples received by the laboratory on 02/06/25 13:48.

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

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

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

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

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

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

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

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**ENSOLUM, LLC  
705 W WADLEY AVE.  
MIDLAND TX, 79705Project: SHELL STATE 1C CTB  
Project Number: 03B1417144  
Project Manager: KELLY LOWERY  
Fax To:Reported:  
11-Feb-25 15:35**Sample ID****Laboratory ID****Matrix****Date Sampled****Date Received**

FS - 16 18' BGS

H250733-01

Soil

06-Feb-25 09:45

06-Feb-25 13:48

02/11/25 - Client added depth to sample ID (see COC). This is the revised report and will replace the one sent earlier today, 02/11/25.

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\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Project: SHELL STATE 1C CTB  
Project Number: 03B1417144  
Project Manager: KELLY LOWERY  
Fax To:

Reported:  
11-Feb-25 15:35

**FS - 16 18' BGS**  
**H250733-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>10000</b>		16.0	mg/kg	4	5020724	HM	07-Feb-25	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5020703	JH	07-Feb-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5020703	JH	07-Feb-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5020703	JH	07-Feb-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5020703	JH	07-Feb-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5020703	JH	07-Feb-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134 5020703 JH 07-Feb-25 8021B

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5020639	MS	07-Feb-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5020639	MS	07-Feb-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5020639	MS	07-Feb-25	8015B	

Surrogate: 1-Chlorooctane 82.9 % 48.2-134 5020639 MS 07-Feb-25 8015B

Surrogate: 1-Chlorooctadecane 80.1 % 49.1-148 5020639 MS 07-Feb-25 8015B

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Project: SHELL STATE 1C CTB  
Project Number: 03B1417144  
Project Manager: KELLY LOWERY  
Fax To:

Reported:  
11-Feb-25 15:35

**Inorganic Compounds - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 5020724 - 1:4 DI Water</b>									
<b>Blank (5020724-BLK1)</b>				Prepared & Analyzed: 07-Feb-25					
Chloride	ND	16.0	mg/kg						
<b>LCS (5020724-BS1)</b>				Prepared & Analyzed: 07-Feb-25					
Chloride	416	16.0	mg/kg	400		104	80-120		
<b>LCS Dup (5020724-BSD1)</b>				Prepared & Analyzed: 07-Feb-25					
Chloride	432	16.0	mg/kg	400		108	80-120	3.77	20

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

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

Project: SHELL STATE 1C CTB  
Project Number: 03B1417144  
Project Manager: KELLY LOWERY  
Fax To:

Reported:  
11-Feb-25 15:35

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5020703 - Volatiles****Blank (5020703-BLK1)**

Prepared &amp; Analyzed: 07-Feb-25

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0532		mg/kg	0.0500		106	71.5-134			

**LCS (5020703-BS1)**

Prepared &amp; Analyzed: 07-Feb-25

Benzene	1.77	0.050	mg/kg	2.00		88.6	82.8-130			
Toluene	1.92	0.050	mg/kg	2.00		96.2	86-128			
Ethylbenzene	1.91	0.050	mg/kg	2.00		95.7	85.9-128			
m,p-Xylene	3.95	0.100	mg/kg	4.00		98.8	89-129			
o-Xylene	2.06	0.050	mg/kg	2.00		103	86.1-125			
Total Xylenes	6.01	0.150	mg/kg	6.00		100	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	0.0503		mg/kg	0.0500		101	71.5-134			

**LCS Dup (5020703-BSD1)**

Prepared &amp; Analyzed: 07-Feb-25

Benzene	1.75	0.050	mg/kg	2.00		87.7	82.8-130	1.04	15.8	
Toluene	1.92	0.050	mg/kg	2.00		96.1	86-128	0.0354	15.9	
Ethylbenzene	1.90	0.050	mg/kg	2.00		95.0	85.9-128	0.721	16	
m,p-Xylene	3.90	0.100	mg/kg	4.00		97.5	89-129	1.23	16.2	
o-Xylene	1.95	0.050	mg/kg	2.00		97.5	86.1-125	5.30	16.7	
Total Xylenes	5.85	0.150	mg/kg	6.00		97.5	88.2-128	2.60	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0491		mg/kg	0.0500		98.1	71.5-134			

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Project: SHELL STATE 1C CTB  
Project Number: 03B1417144  
Project Manager: KELLY LOWERY  
Fax To:

Reported:  
11-Feb-25 15:35

**Petroleum Hydrocarbons by GC FID - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5020639 - General Prep - Organics****Blank (5020639-BLK1)**

Prepared: 06-Feb-25 Analyzed: 07-Feb-25

GRO C6-C10	ND	10.0	mg/kg						
DRO >C10-C28	ND	10.0	mg/kg						
EXT DRO >C28-C36	ND	10.0	mg/kg						
Surrogate: 1-Chlorooctane	52.0		mg/kg	50.0		104	48.2-134		
Surrogate: 1-Chlorooctadecane	52.2		mg/kg	50.0		104	49.1-148		

**LCS (5020639-BS1)**

Prepared: 06-Feb-25 Analyzed: 07-Feb-25

GRO C6-C10	217	10.0	mg/kg	200		108	81.5-123		
DRO >C10-C28	213	10.0	mg/kg	200		107	77.7-122		
Total TPH C6-C28	430	10.0	mg/kg	400		108	80.9-121		
Surrogate: 1-Chlorooctane	50.8		mg/kg	50.0		102	48.2-134		
Surrogate: 1-Chlorooctadecane	51.7		mg/kg	50.0		103	49.1-148		

**LCS Dup (5020639-BSD1)**

Prepared: 06-Feb-25 Analyzed: 07-Feb-25

GRO C6-C10	206	10.0	mg/kg	200		103	81.5-123	5.10	13
DRO >C10-C28	199	10.0	mg/kg	200		99.5	77.7-122	6.98	15.6
Total TPH C6-C28	405	10.0	mg/kg	400		101	80.9-121	6.02	18.5
Surrogate: 1-Chlorooctane	51.6		mg/kg	50.0		103	48.2-134		
Surrogate: 1-Chlorooctadecane	52.5		mg/kg	50.0		105	49.1-148		

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

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

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A handwritten signature in black ink, appearing to read "Celey D. Keene", is written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager

**BILL TO**

## ANALYSIS REQUEST

P.O. #:	
Company:	
Attn:	Wade D. Frick
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

[illegible][illegible]

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Relinquished By: <i>[Signature]</i>	Date: <i>2-10-25</i>	Received By: <i>[Signature]</i>	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By: <i>2/6/25</i>	Time: <i>13:48</i>	<i>Relinquished</i>	All Results are emailed. Please provide Email address:	
Date:				
Time:				
Delivered By: (Circle One)	Observed Temp. °C: <i>0.0</i>	Sample Condition	CHECKED BY: <i>[Signature]</i>	Turnaround Time: <i>5 days</i>
Sampler - UPS - Bus - Other:	Corrected Temp. °C: <i>0.9</i>	Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>	Thermometer ID #140	Standard <input type="checkbox"/> Rush <input checked="" type="checkbox"/>
			Correction Factor 405°C	<i>+0.3</i>
			Bacteria (only) <input type="checkbox"/>	Sample Condition
			Cool <input type="checkbox"/> Intact <input type="checkbox"/>	Observed Temp. °C
			Yes <input type="checkbox"/> No <input type="checkbox"/>	Corrected Temp. °C
REMARKS: <i>* Customer requested Dupth analysis. 2-21/1/25</i>				

† 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

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February 11, 2025

KELLY LOWERY

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: SHELL STATE 1C CTB

Enclosed are the results of analyses for samples received by the laboratory on 02/06/25 13:48.

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

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

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

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

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

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

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

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**ENSOLUM, LLC  
705 W WADLEY AVE.  
MIDLAND TX, 79705Project: SHELL STATE 1C CTB  
Project Number: 03B1417144  
Project Manager: KELLY LOWERY  
Fax To:Reported:  
11-Feb-25 15:38

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
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SW 16 13-18' BGS	H250734-01	Soil	06-Feb-25 11:00	06-Feb-25 13:48
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02/11/25 - Client added depth to sample ID (see COC). This is the revised report and will replace the one sent earlier today, 02/11/25.

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

Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Project: SHELL STATE 1C CTB  
Project Number: 03B1417144  
Project Manager: KELLY LOWERY  
Fax To:

Reported:  
11-Feb-25 15:38

**SW 16 13-18' BGS**  
**H250734-01 (Soil)**

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

<b>Chloride</b>	<b>3080</b>		16.0	mg/kg	4	5020724	HM	07-Feb-25	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050	0.050	mg/kg	50	5020703	JH	07-Feb-25	8021B	
Toluene*	<0.050	0.050	mg/kg	50	5020703	JH	07-Feb-25	8021B	
Ethylbenzene*	<0.050	0.050	mg/kg	50	5020703	JH	07-Feb-25	8021B	
Total Xylenes*	<0.150	0.150	mg/kg	50	5020703	JH	07-Feb-25	8021B	
Total BTEX	<0.300	0.300	mg/kg	50	5020703	JH	07-Feb-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)	105 %	71.5-134			5020703	JH	07-Feb-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0	10.0	mg/kg	1	5020639	MS	07-Feb-25	8015B	
DRO >C10-C28*	<10.0	10.0	mg/kg	1	5020639	MS	07-Feb-25	8015B	
EXT DRO >C28-C36	<10.0	10.0	mg/kg	1	5020639	MS	07-Feb-25	8015B	

Surrogate: 1-Chlorooctane	57.8 %	48.2-134			5020639	MS	07-Feb-25	8015B	
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Surrogate: 1-Chlorooctadecane	56.9 %	49.1-148			5020639	MS	07-Feb-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Project: SHELL STATE 1C CTB  
Project Number: 03B1417144  
Project Manager: KELLY LOWERY  
Fax To:

Reported:  
11-Feb-25 15:38

**Inorganic Compounds - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 5020724 - 1:4 DI Water</b>									
<b>Blank (5020724-BLK1)</b>					Prepared & Analyzed: 07-Feb-25				
Chloride	ND	16.0	mg/kg						
<b>LCS (5020724-BS1)</b>					Prepared & Analyzed: 07-Feb-25				
Chloride	416	16.0	mg/kg	400		104	80-120		
<b>LCS Dup (5020724-BSD1)</b>					Prepared & Analyzed: 07-Feb-25				
Chloride	432	16.0	mg/kg	400		108	80-120	3.77	20

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Project: SHELL STATE 1C CTB  
Project Number: 03B1417144  
Project Manager: KELLY LOWERY  
Fax To:

Reported:  
11-Feb-25 15:38

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5020703 - Volatiles****Blank (5020703-BLK1)**

Prepared &amp; Analyzed: 07-Feb-25

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0532		mg/kg	0.0500		106	71.5-134			

**LCS (5020703-BS1)**

Prepared &amp; Analyzed: 07-Feb-25

Benzene	1.77	0.050	mg/kg	2.00		88.6	82.8-130			
Toluene	1.92	0.050	mg/kg	2.00		96.2	86-128			
Ethylbenzene	1.91	0.050	mg/kg	2.00		95.7	85.9-128			
m,p-Xylene	3.95	0.100	mg/kg	4.00		98.8	89-129			
o-Xylene	2.06	0.050	mg/kg	2.00		103	86.1-125			
Total Xylenes	6.01	0.150	mg/kg	6.00		100	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	0.0503		mg/kg	0.0500		101	71.5-134			

**LCS Dup (5020703-BSD1)**

Prepared &amp; Analyzed: 07-Feb-25

Benzene	1.75	0.050	mg/kg	2.00		87.7	82.8-130	1.04	15.8	
Toluene	1.92	0.050	mg/kg	2.00		96.1	86-128	0.0354	15.9	
Ethylbenzene	1.90	0.050	mg/kg	2.00		95.0	85.9-128	0.721	16	
m,p-Xylene	3.90	0.100	mg/kg	4.00		97.5	89-129	1.23	16.2	
o-Xylene	1.95	0.050	mg/kg	2.00		97.5	86.1-125	5.30	16.7	
Total Xylenes	5.85	0.150	mg/kg	6.00		97.5	88.2-128	2.60	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0491		mg/kg	0.0500		98.1	71.5-134			

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Project: SHELL STATE 1C CTB  
Project Number: 03B1417144  
Project Manager: KELLY LOWERY  
Fax To:

Reported:  
11-Feb-25 15:38

**Petroleum Hydrocarbons by GC FID - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	----------------	-----	--------------	-------

**Batch 5020639 - General Prep - Organics****Blank (5020639-BLK1)**

Prepared: 06-Feb-25 Analyzed: 07-Feb-25

GRO C6-C10	ND	10.0	mg/kg						
DRO >C10-C28	ND	10.0	mg/kg						
EXT DRO >C28-C36	ND	10.0	mg/kg						
Surrogate: 1-Chlorooctane	52.0		mg/kg	50.0		104	48.2-134		
Surrogate: 1-Chlorooctadecane	52.2		mg/kg	50.0		104	49.1-148		

**LCS (5020639-BS1)**

Prepared: 06-Feb-25 Analyzed: 07-Feb-25

GRO C6-C10	217	10.0	mg/kg	200		108	81.5-123		
DRO >C10-C28	213	10.0	mg/kg	200		107	77.7-122		
Total TPH C6-C28	430	10.0	mg/kg	400		108	80.9-121		
Surrogate: 1-Chlorooctane	50.8		mg/kg	50.0		102	48.2-134		
Surrogate: 1-Chlorooctadecane	51.7		mg/kg	50.0		103	49.1-148		

**LCS Dup (5020639-BSD1)**

Prepared: 06-Feb-25 Analyzed: 07-Feb-25

GRO C6-C10	206	10.0	mg/kg	200		103	81.5-123	5.10	13
DRO >C10-C28	199	10.0	mg/kg	200		99.5	77.7-122	6.98	15.6
Total TPH C6-C28	405	10.0	mg/kg	400		101	80.9-121	6.02	18.5
Surrogate: 1-Chlorooctane	51.6		mg/kg	50.0		103	48.2-134		
Surrogate: 1-Chlorooctadecane	52.5		mg/kg	50.0		105	49.1-148		

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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### Notes and Definitions

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

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A handwritten signature in black ink, appearing to read "Celey D. Keene", is written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager



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---

February 11, 2025

KELLY LOWERY

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: SHELL STATE 1C CTB

Enclosed are the results of analyses for samples received by the laboratory on 02/06/25 13:48.

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

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

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

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

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

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

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

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**ENSOLUM, LLC  
705 W WADLEY AVE.  
MIDLAND TX, 79705Project: SHELL STATE 1C CTB  
Project Number: 03B1417144  
Project Manager: KELLY LOWERY  
Fax To:Reported:  
11-Feb-25 15:43**Sample ID****Laboratory ID****Matrix****Date Sampled****Date Received**

DR PI TOPSOIL

H250735-01

Soil

06-Feb-25 12:42

06-Feb-25 13:48

02/11/25 - Client clarified the sample ID. This is the revised report and will replace the one sent earlier today, 02/ 11/25.

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Project: SHELL STATE 1C CTB  
Project Number: 03B1417144  
Project Manager: KELLY LOWERY  
Fax To:

Reported:  
11-Feb-25 15:43

**DR PI TOPSOIL**  
**H250735-01 (Soil)**

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

Chloride	64.0		16.0	mg/kg	4	5020724	HM	07-Feb-25	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5020703	JH	07-Feb-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5020703	JH	07-Feb-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5020703	JH	07-Feb-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5020703	JH	07-Feb-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5020703	JH	07-Feb-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134 5020703 JH 07-Feb-25 8021B

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5020640	MS	07-Feb-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5020640	MS	07-Feb-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5020640	MS	07-Feb-25	8015B	

Surrogate: 1-Chlorooctane 97.9 % 48.2-134 5020640 MS 07-Feb-25 8015B

Surrogate: 1-Chlorooctadecane 97.1 % 49.1-148 5020640 MS 07-Feb-25 8015B

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

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

Project: SHELL STATE 1C CTB  
Project Number: 03B1417144  
Project Manager: KELLY LOWERY  
Fax To:

Reported:  
11-Feb-25 15:43

**Inorganic Compounds - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 5020724 - 1:4 DI Water</b>									
<b>Blank (5020724-BLK1)</b>					Prepared & Analyzed: 07-Feb-25				
Chloride	ND	16.0	mg/kg						
<b>LCS (5020724-BS1)</b>					Prepared & Analyzed: 07-Feb-25				
Chloride	416	16.0	mg/kg	400	104	80-120			
<b>LCS Dup (5020724-BSD1)</b>					Prepared & Analyzed: 07-Feb-25				
Chloride	432	16.0	mg/kg	400	108	80-120	3.77	20	

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**Analytical Results For:**

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

Project: SHELL STATE 1C CTB  
Project Number: 03B1417144  
Project Manager: KELLY LOWERY  
Fax To:

Reported:  
11-Feb-25 15:43

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5020703 - Volatiles****Blank (5020703-BLK1)**

Prepared &amp; Analyzed: 07-Feb-25

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0532		mg/kg	0.0500		106	71.5-134			

**LCS (5020703-BS1)**

Prepared &amp; Analyzed: 07-Feb-25

Benzene	1.77	0.050	mg/kg	2.00		88.6	82.8-130			
Toluene	1.92	0.050	mg/kg	2.00		96.2	86-128			
Ethylbenzene	1.91	0.050	mg/kg	2.00		95.7	85.9-128			
m,p-Xylene	3.95	0.100	mg/kg	4.00		98.8	89-129			
o-Xylene	2.06	0.050	mg/kg	2.00		103	86.1-125			
Total Xylenes	6.01	0.150	mg/kg	6.00		100	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	0.0503		mg/kg	0.0500		101	71.5-134			

**LCS Dup (5020703-BSD1)**

Prepared &amp; Analyzed: 07-Feb-25

Benzene	1.75	0.050	mg/kg	2.00		87.7	82.8-130	1.04	15.8	
Toluene	1.92	0.050	mg/kg	2.00		96.1	86-128	0.0354	15.9	
Ethylbenzene	1.90	0.050	mg/kg	2.00		95.0	85.9-128	0.721	16	
m,p-Xylene	3.90	0.100	mg/kg	4.00		97.5	89-129	1.23	16.2	
o-Xylene	1.95	0.050	mg/kg	2.00		97.5	86.1-125	5.30	16.7	
Total Xylenes	5.85	0.150	mg/kg	6.00		97.5	88.2-128	2.60	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0491		mg/kg	0.0500		98.1	71.5-134			

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**Analytical Results For:**

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

Project: SHELL STATE 1C CTB  
Project Number: 03B1417144  
Project Manager: KELLY LOWERY  
Fax To:

Reported:  
11-Feb-25 15:43

**Petroleum Hydrocarbons by GC FID - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5020640 - General Prep - Organics****Blank (5020640-BLK1)**

Prepared: 06-Feb-25 Analyzed: 07-Feb-25

GRO C6-C10	ND	10.0	mg/kg						
DRO >C10-C28	ND	10.0	mg/kg						
EXT DRO >C28-C36	ND	10.0	mg/kg						
Surrogate: 1-Chlorooctane	62.5		mg/kg	50.0		125	48.2-134		
Surrogate: 1-Chlorooctadecane	67.3		mg/kg	50.0		135	49.1-148		

**LCS (5020640-BS1)**

Prepared: 06-Feb-25 Analyzed: 07-Feb-25

GRO C6-C10	207	10.0	mg/kg	200		104	81.5-123		
DRO >C10-C28	208	10.0	mg/kg	200		104	77.7-122		
Total TPH C6-C28	415	10.0	mg/kg	400		104	80.9-121		
Surrogate: 1-Chlorooctane	66.8		mg/kg	50.0		134	48.2-134		
Surrogate: 1-Chlorooctadecane	68.8		mg/kg	50.0		138	49.1-148		

**LCS Dup (5020640-BSD1)**

Prepared: 06-Feb-25 Analyzed: 07-Feb-25

GRO C6-C10	203	10.0	mg/kg	200		102	81.5-123	1.91	13
DRO >C10-C28	201	10.0	mg/kg	200		100	77.7-122	3.49	15.6
Total TPH C6-C28	404	10.0	mg/kg	400		101	80.9-121	2.70	18.5
Surrogate: 1-Chlorooctane	63.2		mg/kg	50.0		126	48.2-134		
Surrogate: 1-Chlorooctadecane	64.5		mg/kg	50.0		129	49.1-148		

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

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

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Cardinal Laboratories

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

---

Celey D. Keene, Lab Director/Quality Manager



**BILL TO**

## ANALYSIS REQUEST

[illegible]

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

Relinquished By:

Date: 25-7-20

Received By:

Refiniquished By:

Date:

Received By:

Time:

Delivered By: (Circle One)

Observed Temp. °C 61.02

Sample Condition

**CHECKED**

Turnaround Time:

Standard

Bacteria (only) Sample Condition

**Sampler - UPS - Bus - Other:**

Corrected Temp. °C 19.6

☒ Yes ☐ Yes

(initials)

Thermometer ID #1

115011

Cool	Intact	Observed Temp. °C
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	

† 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

---

October 03, 2024

KELLY LOWERY

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: MILLS RANCH PIT

Enclosed are the results of analyses for samples received by the laboratory on 09/30/24 13:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](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  
 KELLY LOWERY  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/30/2024  
 Reported: 10/03/2024  
 Project Name: MILLS RANCH PIT  
 Project Number: 03B1417139  
 Project Location: OXY - LEA COUNTY, NM

Sampling Date: 09/30/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: MILLS RANCH PIT 0.25' (H245925-01)**

BTEX 8021B		mg/kg	Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/02/2024	ND	1.99	99.6	2.00	6.75	
<b>Toluene*</b>	<b>0.060</b>	0.050	10/02/2024	ND	2.05	103	2.00	6.79	
Ethylbenzene*	<0.050	0.050	10/02/2024	ND	2.07	104	2.00	7.11	
Total Xylenes*	<0.150	0.150	10/02/2024	ND	6.16	103	6.00	7.03	
Total BTEX	<0.300	0.300	10/02/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/01/2024	ND	432	108	400	7.14	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/01/2024	ND	205	103	200	1.17	
DRO >C10-C28*	<10.0	10.0	10/01/2024	ND	183	91.5	200	3.28	
EXT DRO >C28-C36	<10.0	10.0	10/01/2024	ND					

Surrogate: 1-Chlorooctane 72.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 62.3 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

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

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

---

Celey D. Keene, Lab Director/Quality Manager



## BILL TO

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

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QUESTIONS

Action 456289

**QUESTIONS**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 456289
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2402456040
Incident Name	NAPP2402456040 SHELL STATE 1C CTB @ 30-025-20810
Incident Type	Release Other
Incident Status	Remediation Closure Report Received
Incident Well	[30-025-20810] SHELL STATE #001

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

Site Name	SHELL STATE 1C CTB
Date Release Discovered	01/23/2024
Surface Owner	State

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

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

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

Crude Oil Released (bbls) Details	Cause: Human Error   Valve   Crude Oil   Released: 10 BBL   Recovered: 3 BBL   Lost: 7 BBL.
Produced Water Released (bbls) Details	Cause: Human Error   Valve   Produced Water   Released: 40 BBL   Recovered: 3 BBL   Lost: 37 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)	Produced oil and produced water release



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QUESTIONS, Page 2

Action 456289

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 456289
	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)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

**Initial Response**

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

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

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

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

I hereby agree and sign off to the above statement	Name: Wade Dittrich Title: Environmental Coordinator Email: wade_dittrich@oxy.com Date: 04/28/2025
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QUESTIONS, Page 3

Action 456289

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 456289
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Site Characterization</b>	
<i>Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	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	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

<b>Remediation Plan</b>	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
<b>Soil Contamination Sampling:</b> (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	90600
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	670
GRO+DRO (EPA SW-846 Method 8015M)	526
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
On what estimated date will the remediation commence	03/20/2024
On what date will (or did) the final sampling or liner inspection occur	04/16/2025
On what date will (or was) the remediation complete(d)	04/16/2025
What is the estimated surface area (in square feet) that will be reclaimed	6281
What is the estimated volume (in cubic yards) that will be reclaimed	931
What is the estimated surface area (in square feet) that will be remediated	6281
What is the estimated volume (in cubic yards) that will be remediated	8208
<i>These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.</i>	
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 4

Action 456289

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:	16696
	Action Number:	456289
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Remediation Plan (continued)</b>	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
<b>This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:</b>	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	LEA LAND LANDFILL [fEEM0112342028]
<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
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Wade Dittrich Title: Environmental Coordinator Email: <a href="mailto:wade_dittrich@oxy.com">wade_dittrich@oxy.com</a> Date: 04/28/2025
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 5

Action 456289

QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 456289
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

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

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QUESTIONS, Page 6

Action 456289

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 456289
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

Sampling Event Information	
Last sampling notification (C-141N) recorded	427462
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	02/06/2025
What was the (estimated) number of samples that were to be gathered	1
What was the sampling surface area in square feet	400

**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	9872
What was the total volume (cubic yards) remediated	4733
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	9872
What was the total volume (in cubic yards) reclaimed	1463
Summarize any additional remediation activities not included by answers (above)	NA

*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: Wade Dittrich Title: Environmental Coordinator Email: wade_dittrich@oxy.com Date: 04/28/2025
--	---



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QUESTIONS, Page 7  
  
Action 456289

QUESTIONS (continued)

Operator:  OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:  16696
	Action Number:  456289
	Action Type:  [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

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

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CONDITIONS

Action 456289

**CONDITIONS**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 456289
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**CONDITIONS**

Created By	Condition	Condition Date
michael.buchanan	The remediation closure is approved.	6/25/2025
michael.buchanan	The reclamation report will need to include: Executive Summary of the reclamation activities; Scaled Site Map including sampling locations; Analytical results including, but not limited to, results showing that any remaining impacts meet the reclamation standards and results to prove the backfill is non-waste containing; At least one (1) representative 5-point composite sample will need to be collected from the backfill material that will be used for the reclamation of the top four feet of the excavation. The OCD reserves the right to request additional sampling if needed; pictures of the backfilled areas showing that the area is back, as nearly as practical, to the original condition or the final land use and maintain those areas to control dust and minimize erosion to the extent practical; pictures of the top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater; and a revegetation plan.	6/25/2025
michael.buchanan	A reclamation report will not be accepted until reclamation of the release area, including areas reasonably needed for production or drilling activities, is complete and meet the requirements of 19.15.29.13 NMAC. Areas not reasonably needed for production or drilling activities will still need to be reclaimed and revegetated as early as practicable.	6/25/2025
michael.buchanan	All revegetation activities will need to be documented and included in the revegetation report. The revegetation report will need to include: An executive summary of the revegetation activities including: Seed mix, Method of seeding, dates of when the release area was reseeded, information pertinent to inspections, information about any amendments added to the soil, information on how the vegetative cover established meets the life-form ratio of plus or minus fifty percent of pre-disturbance levels and a total percent plant cover of at least seventy percent of pre-disturbance levels, excluding noxious weeds per 19.15.29.13 D.(3) NMAC, and any additional information; a scaled Site Map including area that was revegetated in square feet; and pictures of the revegetated areas during reseeding activities, inspections, and final pictures when revegetation is achieved.	6/25/2025
michael.buchanan	A revegetation report will not be accepted until revegetation of the release area, including areas reasonably needed for production or drilling activities, is complete and meet the requirements of 19.15.29.13 NMAC. Areas not reasonably needed for production or drilling activities will still need to be reclaimed and revegetated as early as practicable.	6/25/2025
michael.buchanan	Per 19.15.29.13 E. NMAC, if a reclamation and revegetation report has been submitted to the surface owner, it may be used if the requirements of the surface owner provide equal or better protection of freshwater, human health, and the environment. A copy of the approval of the reclamation and revegetation report from the surface owner and a copy of the approved reclamation and revegetation report will need to be submitted to the OCD via the Permitting website.	6/25/2025