



## CLOSURE REPORT

Property:

**Federal 12-1H Battery**

**Eddy County, New Mexico  
32.32150° N, 103.81203° W  
NMOCD Incident ID: nAB1700440047**

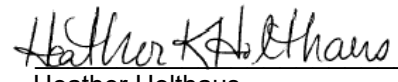
December 13, 2023  
Ensolum Project No. 03B1417058

Prepared for:

**Oxy USA Inc.  
P.O. Box 4294  
Houston, TX 77210  
Attn: Mr. Wade Dittrich**

Prepared by:

  
Beaux Jennings  
Senior Project Manager

  
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Senior Project Manager



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# ENSOLUM

## CLOSURE REPORT

Federal 12-1H Battery

Eddy County, New Mexico  
32.32150° N, 103.81203° W  
NMOCD Incident ID: nAB1700440047

Ensolum Project No. 03B1417058

## 1.0 INTRODUCTION

### 1.1 Executive Summary

- On December 16, 2016, a release of produced water was reported from a water transfer line due to a failure in the line at the Federal 12-1H Battery, hereinafter referred to as the "Site". Approximately 20 barrels (bbls) of produced water were released onto the ground surface with approximately 10 bbls recovered. The release impacted an area approximately 75 feet long by 175 feet wide. The line was shut down and repaired and initial response actions were conducted at the Site. The Remediation Work Plan, prepared by BBC International Incorporated (BBC) on behalf of Oxy USA Inc. (Oxy), stated that the impacted area would be excavated to depths ranging from 3.5 to 5.5 feet below ground surface (bgs). A copy of the approved Remediation Work Plan is included in Appendix B.
- Excavation activities were conducted based on visual and laboratory evidence of impairment. Subsequent to completion of excavation activities, between September 12 and September 19, 2023, Ensolum arrived on-Site and collected a total of 48 composite soil samples from 48 locations on the excavation floor (FS-1 through FS-48), and 13 composite soil samples from 12 locations on the excavation sidewalls (SW-1 through SW-12). The composite floor samples were collected from depths ranging from 3 to 6 feet bgs, and the composite sidewall samples were collected from depths ranging from 0-3 feet bgs. In addition, Ensolum collected nine delineation soil samples from locations outside the release area (DS-1 through DS-9) at a depth of 0-0.25 feet bgs. Additionally, in accordance with the BBC Remediation Work Plan, a liner was placed in the vicinity of previously collected soil sample location SP1, inside the excavation, prior to backfilling.
- Based on the laboratory analytical results of the final soil samples, no additional excavation was required.
- The primary objective of the closure activities was to reduce chemical of concern (COC) concentrations in the on-Site soils to below the applicable New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD) Closure Criteria for Soils Impacted by a Release using the New Mexico Administrative Code (NMAC) 19.15.29 *Releases* as guidance.
- Based on the laboratory analytical results, the final composite and delineation soil samples collected from the excavation did not exhibit benzene, total benzene, toluene, ethylbenzene, and xylene (BTEX), total petroleum hydrocarbons (TPH), gasoline range organics (GRO), diesel range organics (DRO), motor oil range organics (MRO) or chloride concentrations above the applicable NMOCD Closure Criteria. Subsequent to the results of the confirmation soil sampling, the excavated soils were removed and taken off-Site for proper disposal and the excavated area was backfilled with clean fill material, and then contoured to the original surrounding grade. Once the area was brought back to original grade, a Bureau of Land Management (BLM) approved seed mixture was sown into the surface area of the backfill for re-vegetation.

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

## 1.2 Site Description & Background

<b>Operator:</b>	Oxy USA Inc. (Oxy)
<b>Site Name:</b>	Federal 12-1H Battery
<b>Location:</b>	32. 32150 N, 103.81203 W Eddy County, New Mexico
<b>Property:</b>	Bureau of Land Management (BLM)
<b>Regulatory:</b>	New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

The Topographic Map depicting the location of the Site is included as **Figure 1**, the Site Vicinity Map is included as **Figure 2**, the Site Map indicating the locations of composite soil samples is included as **Figure 3**, and the Closure Criteria Map is included as **Figure 4** in **Appendix A**.

## 1.3 Project Objective

The primary objective of the closure activities was to reduce COC concentrations in the on-Site soils to below 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 NMAC 19.15.29 *Releases*, which establishes investigation and abatement action requirements for sites subject to reporting and/or corrective action. 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.

- The Site is not located within 300 feet of a New Mexico EMNRD OCD-defined continuously flowing watercourse or any other 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 from an occupied 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 (5) households for domestic or stock water purposes identified within 500 feet of the Site.
- According to the OSE WRSS database there are no freshwater wells identified within 1,000 feet of the Site as declared in the previous bullet.
- The Site is not located within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3.

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- The Site is not located within 300 feet of a wetland.
- Based on information identified on the New Mexico Mining and Minerals Division's 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 Bureau of Land Management (BLM), the Site is not located within an unstable area.
- The Site is noted to be located within an area of minimal flood hazard.
- A search of the OSE WRSS database was conducted for water wells within 0.5-mile radius of the Site in order to determine the depth to groundwater in the vicinity of the Site. C-02492-POD2 was identified approximately 1,050 feet north of the Site, with a recorded depth to groundwater of 125 feet bgs (C-02492-POD2). The search also identified information on several historical USGS wells within 500 feet of the Site (321918103484301, 321918103484302, and 321913103483701), dating back to 1959. These wells were plugged and abandoned in the mid 1980's to early 1990s.

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			
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)	EPA SW-846 Method 8015M	1,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 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 December 16, 2016, a release of produced water was reported from a water transfer line due to a failure in the line at the Federal 12-1H Battery. Approximately 20 bbls of produced water were released onto the ground surface with approximately 10 bbls recovered. The release impacted an area approximately 75 feet long by 175 feet wide. The line was shut down and repaired and initial response actions were conducted at the Site. The Remediation Work Plan, prepared by BBC on behalf of Oxy, stated that the impacted area would be excavated to depths ranging from 3.5 to 5.5 feet bgs, and was approved by the NMOCD on February 7, 2017, and the BLM on February 14, 2017. A copy of the approved Remediation Work Plan is included in **Appendix B**.

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Excavation activities were conducted based on visual and laboratory evidence of impairment. Subsequent to completion of excavation activities, between September 12 and September 19, 2023, Ensolum arrived on-Site and collected a total of 48 composite soil samples from 48 locations on the excavation floor (FS-1 through FS-48), and 13 composite soil samples from 12 locations on the excavation sidewalls (SW-1 through SW-12). The composite floor samples were collected from depths ranging from 3 to 6 feet bgs, and the composite sidewall samples were collected from depths ranging from 0-3 feet bgs. In addition, Ensolum collected nine delineation soil samples from locations outside the release area (DS-1 through DS-9) at a depth of 0-0.25 feet bgs. Additionally, in accordance with the BBC Remediation Work Plan, a liner was placed in the vicinity of previously collected soil sample location SP1, inside the excavation, prior to backfilling.

Based on the laboratory analytical results of the final soil samples, no additional excavation was required.

The lithology encountered during the completion of sampling activities consisted primarily of a pink and yellow silty sand.

**Figure 3** identifies approximate pothole soil sample locations and approximate dimensions of the impacted area with respect to the Site (**Appendix A**). Photographic documentation of the field activities is included in **Appendix C**.

#### 4.0 SOIL SAMPLING PROGRAM

Ensolum's composite soil sampling program included the collection of 48 composite soil samples from 48 locations on the excavation floor (FS-1 through FS-48), and 13 composite soil samples from 12 locations on the excavation sidewalls (SW-1 through SW-12). The composite floor samples were collected from depths ranging from 3 to 6 feet bgs, and the composite sidewall samples were collected from depths ranging from 0-3 feet bgs. In addition, Ensolum collected nine delineation soil samples from locations outside the release area (DS-1 through DS-9) at a depth of 0-0.25 feet bgs. In addition, a liner was placed in the vicinity of SP1 inside the excavation.

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 for standard laboratory analysis.

#### 5.0 SOIL LABORATORY ANALYTICAL METHODS

The composite and delineation soil samples were analyzed for BTEX utilizing Environmental Protection Agency (EPA) SW-846 Method 8021B, TPH GRO/DRO/MRO utilizing EPA SW-846 Method 8015M, and chloride utilizing EPA Method 4500-Cl B.

Laboratory analytical results are summarized in **Table 1** in **Appendix D**. The executed chain-of-custody forms and laboratory analytical reports are provided in **Appendix E**.

#### 6.0 DATA EVALUATION

Ensolum compared the benzene, total BTEX, TPH GRO/DRO, TPH GRO/DRO/MRO, and chloride concentrations associated with the final composite soil samples collected from the excavation floor (FS-1 through FS-48), the excavation sidewalls (SW-1 through SW-12), and the delineation soil samples collected from locations outside the release area (DS-1 through DS-9) to the applicable NMOCD Closure Criteria.

- Laboratory analytical results indicate benzene concentrations for the composite and delineation soil samples are below the laboratory sample detection limits (SDLs), which are below the applicable NMOCD Closure Criteria of 10 milligrams per kilogram (mg/kg).

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- Laboratory analytical results indicate that total BTEX concentrations for the composite and delineation soil samples are below the laboratory SDLs, which are below the applicable NMOCD Closure Criteria of 50 mg/kg.
- Laboratory analytical results indicate combined TPH GRO/DRO concentrations for the composite and delineation soil samples are below the laboratory SDLs, which are below the applicable NMOCD Closure Criteria of 1,000 mg/kg for groundwater at >100 feet.
- Laboratory analytical results indicate combined TPH GRO/DRO/MRO concentrations for the composite and delineation soil samples are below the laboratory SDLs, which are below the applicable NMOCD Closure Criteria of 2,500 mg/kg for groundwater at >100 feet.
- Laboratory analytical results indicate chloride concentrations for the final composite and delineation soil samples are below the applicable NMOCD Closure Criteria of 20,000 mg/kg for groundwater at >100 feet.

Laboratory analytical results are summarized in **Table 1** in **Appendix D**.

## 7.0 RECLAMATION AND RE-VEGETATION

Subsequent to the results of the final confirmation soil sampling, the identified impacted soils were removed and taken off-Site for proper disposal. The excavated area was backfilled with clean fill material, and then contoured to the original surrounding grade. Once the area was brought back to original grade, a BLM approved seed mixture was sown into the surface area of the backfill for re-vegetation.

## 8.0 FINDINGS AND RECOMMENDATION

- On December 16, 2016, a release of produced water was reported from a water transfer line due to a failure in the line at the Federal 12-1H Battery. Approximately 20 bbls of produced water were released onto the ground surface with approximately 10 bbls recovered. The release impacted an area approximately 75 feet long by 175 feet wide. The line was shut down and repaired and initial response actions were conducted at the Site. The Remediation Work Plan, prepared by BBC on behalf of Oxy, stated that the impacted area would be excavated to depths ranging from 3.5 to 5.5 feet bgs. A copy of the approved Remediation Work Plan is included in Appendix B.
- Excavation activities were conducted based on visual and laboratory evidence of impairment. Subsequent to completion of excavation activities, between September 12 and September 19, 2023, Ensolum arrived on-Site and collected a total of 48 composite soil samples from 48 locations on the excavation floor (FS-1 through FS-48), and 13 composite soil samples from 12 locations on the excavation sidewalls (SW-1 through SW-12). The composite floor samples were collected from depths ranging from 3 to 6 feet bgs, and the composite sidewall samples were collected from depths ranging from 0-3 feet bgs. In addition, Ensolum collected nine delineation soil samples from locations outside the release area (DS-1 through DS-9) at a depth of 0-0.25 feet bgs. Additionally, in accordance with the BBC Remediation Work Plan, a liner was placed in the vicinity of previously collected soil sample location SP1, inside the excavation, prior to backfilling.
- Based on the laboratory analytical data of the final soil samples, no additional excavation was required.
- The primary objective of the closure activities was to reduce COC concentrations in the on-Site soils to below the applicable New Mexico EMNRD OCD Closure Criteria for Soils Impacted by a Release using the NMAC 19.15.29 *Releases* as guidance.



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- Based on the laboratory analytical results, the final composite and delineation soil samples collected from the excavation did not exhibit benzene, BTEX, TPH GRO/DRO, TPH GRO/DRO/MRO or chloride concentrations above the applicable NMOCD Closure Criteria.
- Subsequent to the results of the final confirmation soil sampling, the identified impacted soils were removed and taken off-Site for proper disposal. The excavated area was backfilled with clean fill material, and then contoured to the original surrounding grade. Once the area was brought back to original grade, a BLM approved seed mixture was sown into the surface area of the backfill for re-vegetation.

**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 at 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**

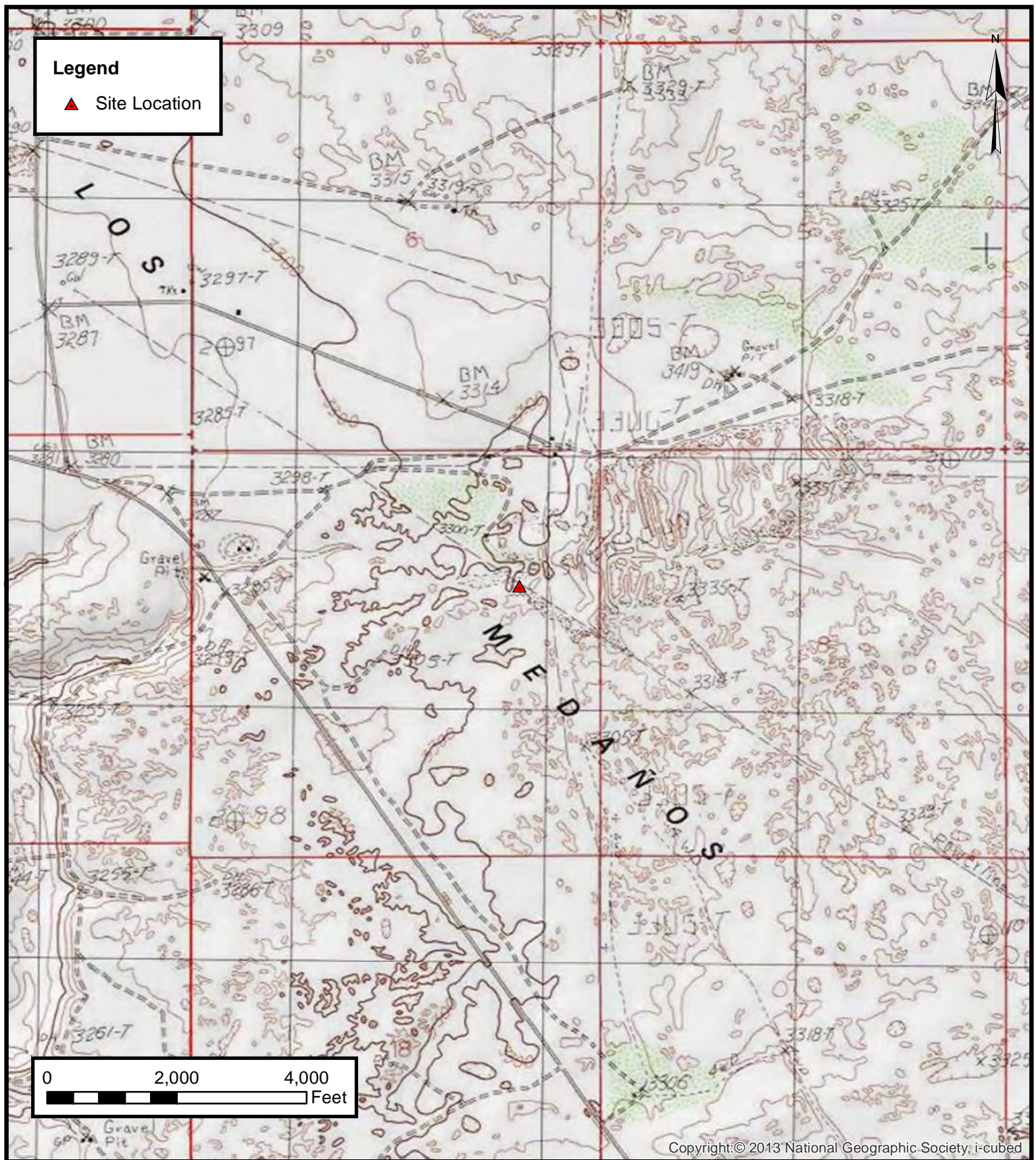
This report has been prepared for the exclusive use of Oxy USA, Inc., and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization Oxy USA, Inc. and Ensolum. Any unauthorized distribution 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



## Topographic Map

Oxy USA Inc.  
Federal 12-1H Battery  
32.32150° N, 103.81203° W  
Eddy County, New Mexico

PROJECT NUMBER: 03B1417058

**FIGURE**  
**1**





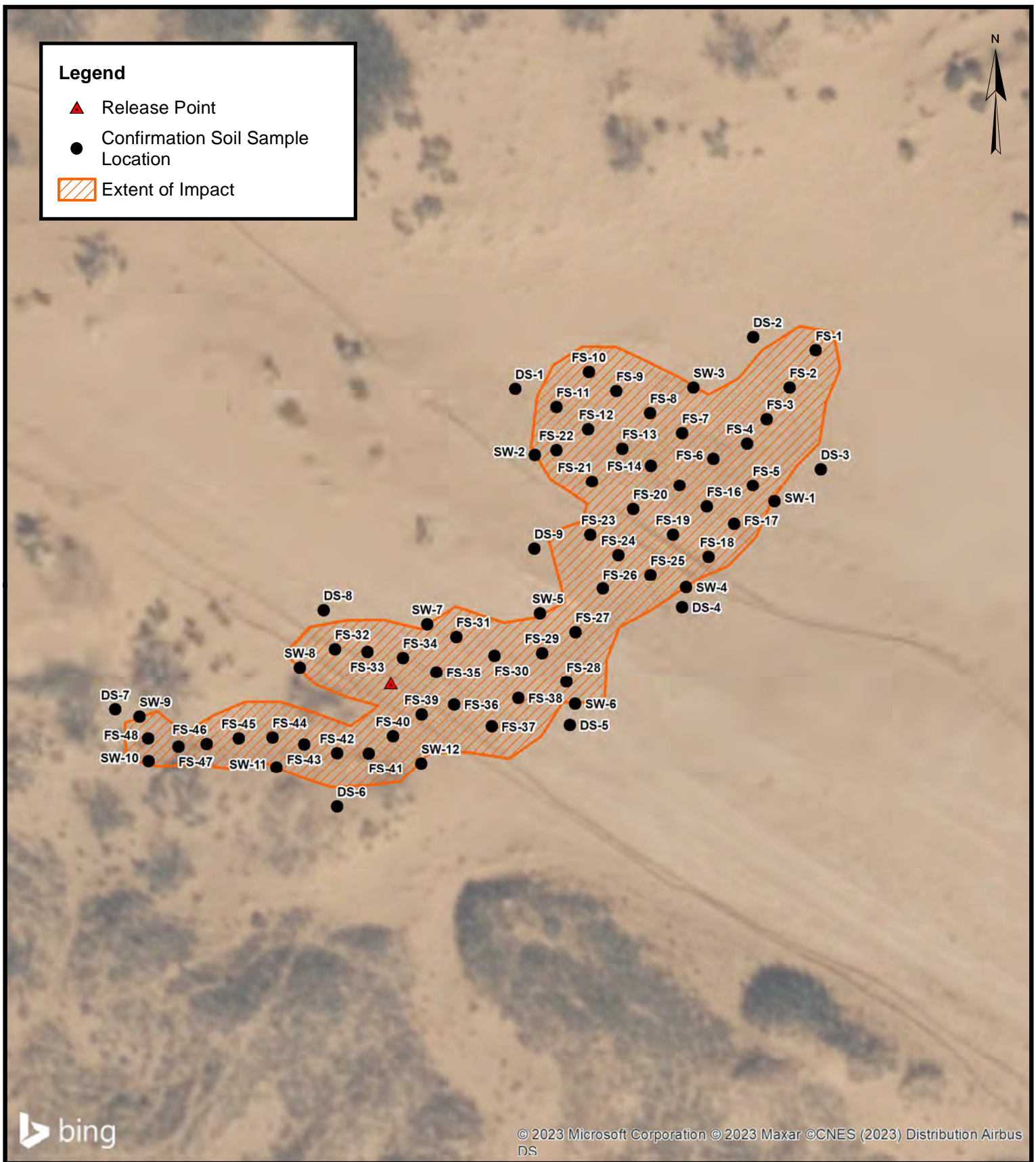
## Site Vicinity Map

Oxy USA Inc.  
Federal 12-1H Battery  
32.32150° N, 103.81203° W  
Eddy County, New Mexico

PROJECT NUMBER: 03B1417058

FIGURE  
2





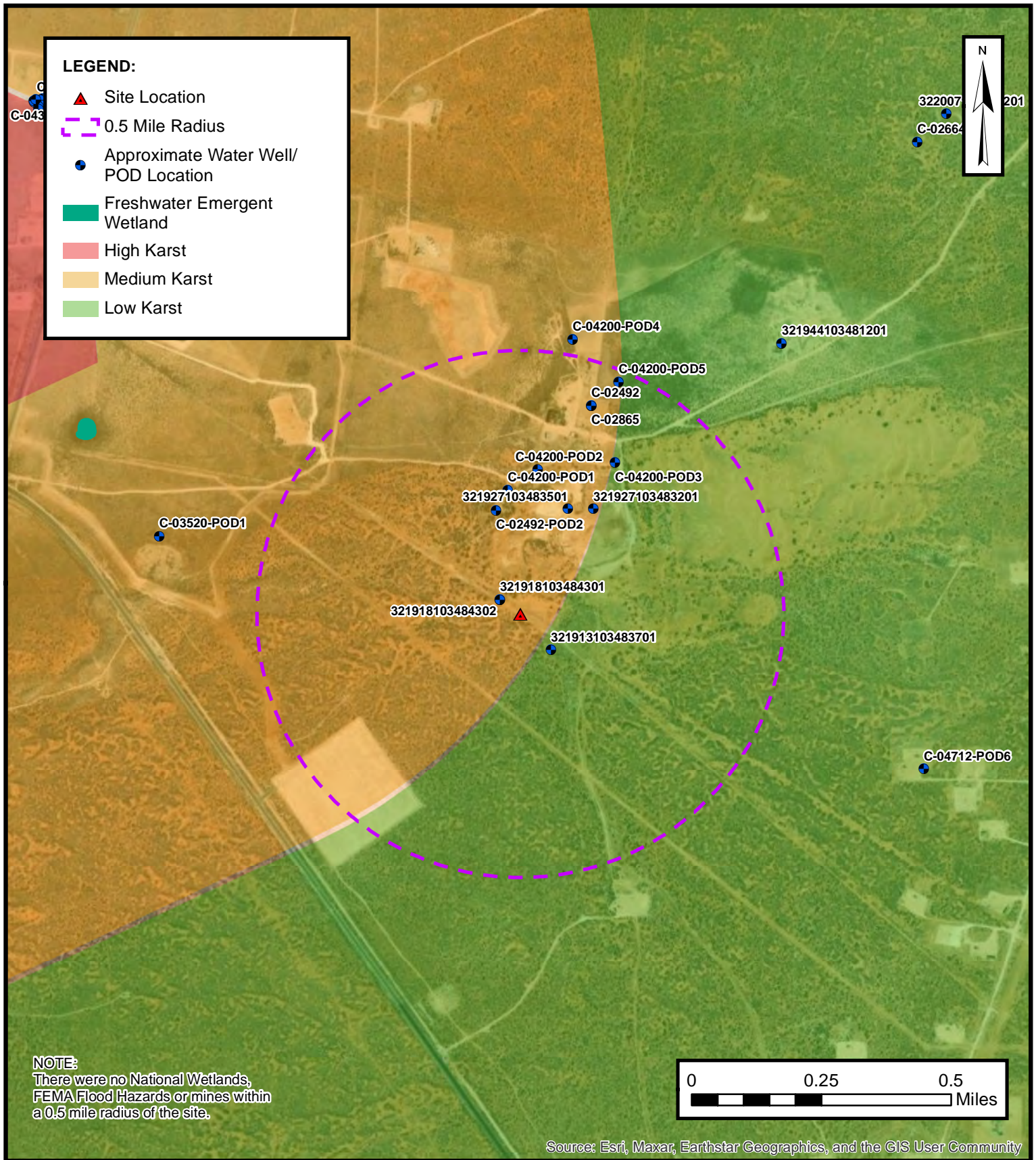
## Site Map

Oxy USA Inc.  
Federal 12-1H Battery  
32.32150° N, 103.81203° W  
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**FIGURE**  
**3**





## Closure Criteria Map

Oxy USA Inc.  
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32.32150° N, 103.81203° W  
Eddy County, New Mexico

PROJECT NUMBER: 03B1417058

**FIGURE**  
**4**

**ENSOLUM**  
Environmental, Engineering and  
Hydrogeologic Consultants



## APPENDIX B

### Supporting Documentation

## NM OIL CONSERVATION

District I  
1625 N. French Dr., Hobbs, NM 88240District II  
811 S. First St., Artesia, NM 88210District III  
1000 Rio Brazos Road, Aztec, NM 87410District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505State of New Mexico  
Energy Minerals and Natural ResourcesOil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505Form C-141  
Revised August 8, 2011Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

## Release Notification and Corrective Action

**OPERATOR** ☒ Initial Report ☐ Final Report

**Name of Company** Oxy Permian Ltd. **Contact** Casey Summers

**Address** PO Box 4294; Houston, TX 77210 **Telephone No.** (575) 513-8289

**Facility Name** Federal 12-1H Battery **Facility Type** Battery

**Surface Owner** BLM **Mineral Owner** **API No.** 30-015-40840

## LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	7	23S	31E					Eddy County, NM

Latitude N 32.32150° Longitude W 103.81203°

## NATURE OF RELEASE

<b>Type of Release</b> Produced water	<b>Volume of Release</b> 20 bbls	<b>Volume Recovered</b> 10 bbls
<b>Source of Release</b> Ruptured water transfer line	<b>Date and Hour of Occurrence</b> 12/16/2016	<b>Date and Hour of Discovery</b>
<b>Was Immediate Notice Given?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	<b>If YES, To Whom?</b> Mike Bratcher, Heather Patterson, Crystal Weaver- NMOCD; Shelly Tucker- BLM	
<b>By Whom?</b> Kathy@ BBC International, Inc.	<b>Date and Hour</b> 12/16/2016 @ 4:43 pm	
<b>Was a Watercourse Reached?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>If YES, Volume Impacting the Watercourse.</b>	

If a Watercourse was Impacted, Describe Fully.\*


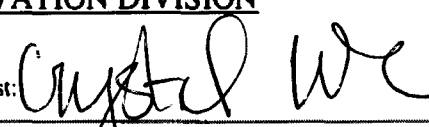
Describe Cause of Problem and Remedial Action Taken.\*

A ruptured water transfer line leaked 20 bbls of produced water into the pasture. A vacuum truck recovered 10 bbls of produced water and the line was repaired.

Describe Area Affected and Cleanup Action Taken.\*

The affected area is approximately 175' x 75' off location in the pasture. Remediation will be completed in accordance with a plan approved by both NMOCD and the BLM.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

<b>Signature:</b> 	<b>OIL CONSERVATION DIVISION</b>	
<b>Printed Name:</b> Casey Summers	<b>Approved by Environmental Specialist:</b> 	
<b>Title:</b> NM Environmental Advisor	<b>Approval Date:</b> 11/4/17	<b>Expiration Date:</b> N/A
<b>E-mail Address:</b> Casey_Summers@oxy.com	<b>Conditions of Approval:</b> see attached	<b>Attached</b> <input checked="" type="checkbox"/>
<b>Date:</b> 12-29-16 <b>Phone:</b> (575) 513-8289		

\* Attach Additional Sheets If Necessary

ARP-4053



Operator/Responsible Party,

The OCD has received the form C-141 you provided on **12/29/16** regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number ARP-4053 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

*The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]*

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District II office in Artesia on or before 2/3/17. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

**Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.**

**Jim Griswold**

OCD Environmental Bureau Chief

1220 South St. Francis Drive

Santa Fe, New Mexico 87505

505-476-3465

jim.griswold@state.nm.us

## Weaver, Crystal, EMNRD

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**From:** Kathy Purvis <kathy@bbcinternational.com>  
**Sent:** Thursday, December 29, 2016 9:56 AM  
**To:** Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD; stucker@blm.gov  
**Cc:** Casey\_Summers@oxy.com; Jennifer\_Hudgens@oxy.com;  
cbrunson@bbcinternational.com; kswinney@bbcinternational.com; 'Jennifer Gilkey'  
**Subject:** Initial C-141, Federal 12-1H Battery  
**Attachments:** Initial C-141, Federal 12-1H Battery.pdf

Attached is the initial C-141 for a leak that occurred at the Federal 12-1H Battery on 12/16/2016 in Eddy County, NM. Receipt notification and the RP number via email are greatly appreciated.

### Kathy Purvis

BBC International, Inc.  
1324 W. Marland Blvd.  
Hobbs, NM 88240  
Business: (575) 397-6388  
Cell: (575) 441-8619  
[kathy@bbcinternational.com](mailto:kathy@bbcinternational.com)



PHONE (575) 397-6388 • FAX (575) 397- 0397 • 1324 W. MARLAND • P.O. BOX 805 • HOBBS, NM 88241-0805  
E-MAIL: cbrunson@bbcinternational.com

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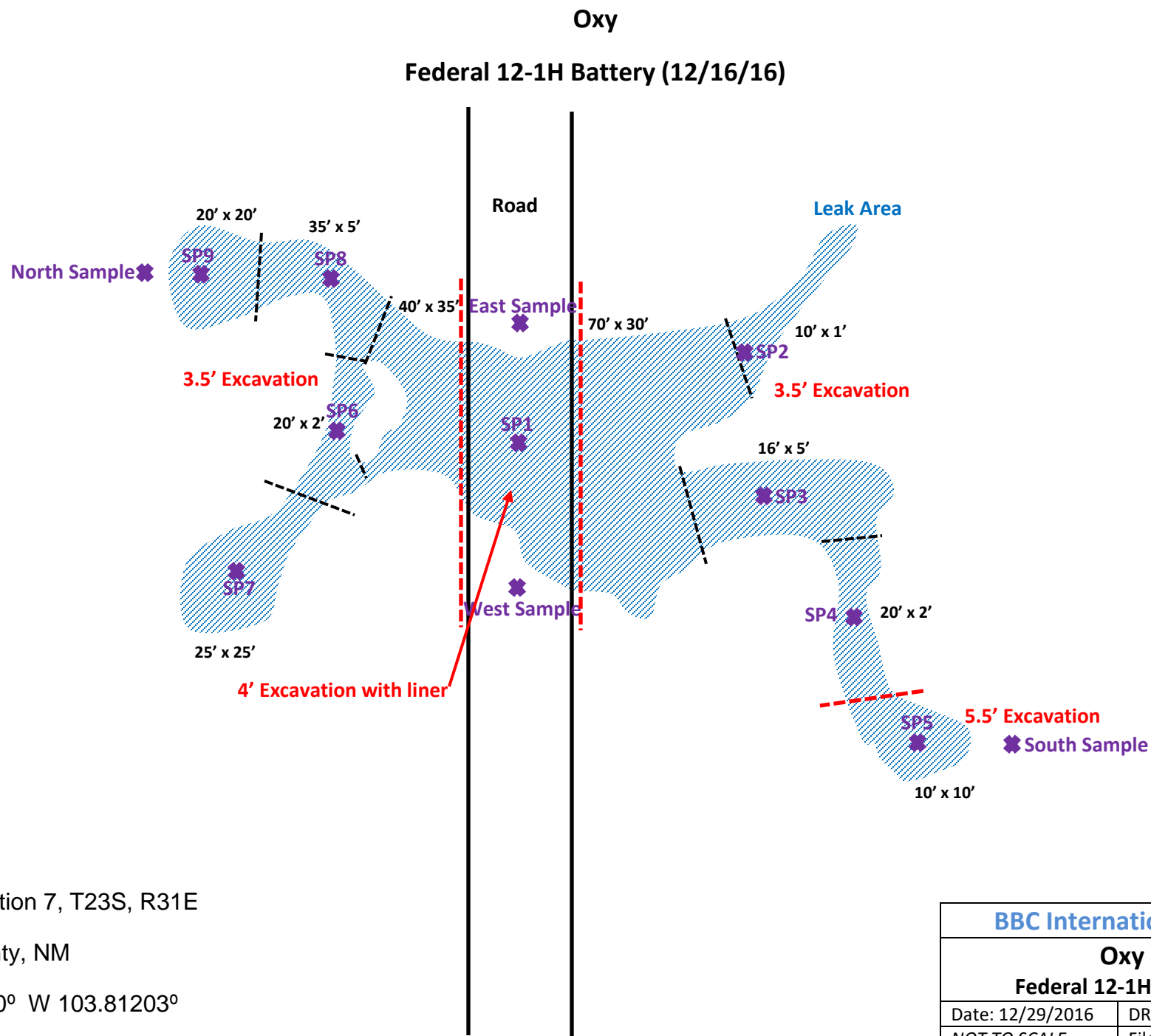
## **Oxy – Federal 12-1H Battery (12/16/2016)**

### **REMEDIATION PLAN, RP # 2RP-4053**

---

Oxy will excavate the spill area as depicted on the following site diagram. The entire leak area will be excavated to a depth of 3.5 feet, except in the area of SP5, which will be excavated to a depth of 5.5 feet and, in the area of SP1, which will be excavated to a depth of 4 feet and a liner will be placed in the excavation. The entire site will then be backfilled with clean soil.

All excavated materials will be disposed of at an NMOCD-approved disposal facility.



U/L H, Section 7, T23S, R31E

Eddy County, NM

N 32.32150° W 103.81203°

API# 30-015-40840

**BBC International, Inc.****Oxy****Federal 12-1H Battery**

Date: 12/29/2016

DRWG by: K. Purvis

NOT TO SCALE

File: Oxy 2016

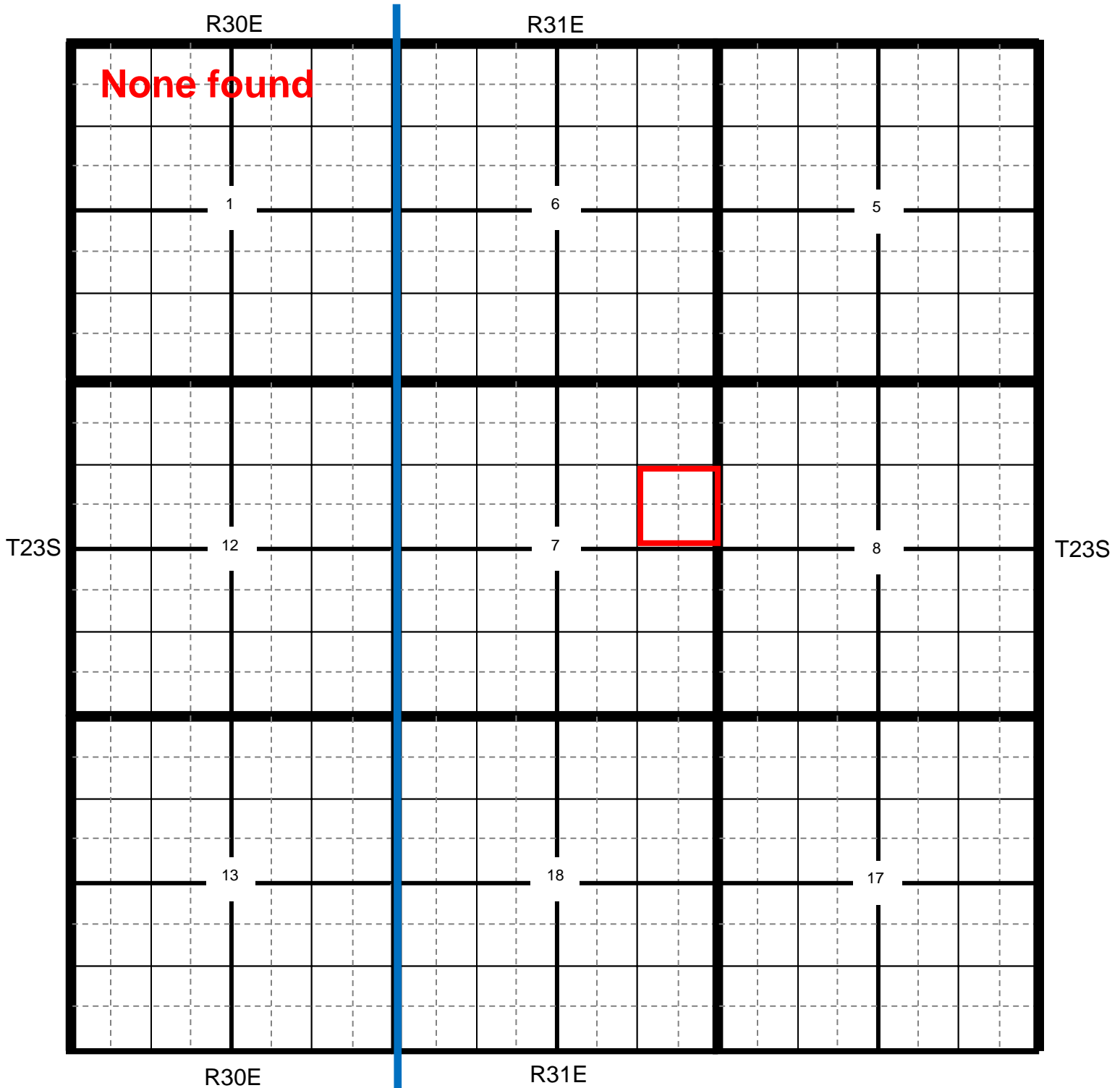


# Groundwater Plot

## Oxy Federal 12-1H Battery

County	Unit Letter	Section	Township	Range
Eddy	H	7	23S	31E

Trend Map 100'





## Section Quarters

## Oxy Federal 12-1H Battery

**County**  
Eddy

**Unit Letter**  
H

**Section**  
7

**Township**  
23S

**Range**  
31E

Trend Map 100'

1

2

NW/NW <b>None found</b>	NE/NW	NW/NE	NE/NE
Unit Letter D	Unit Letter C	Unit Letter B	Unit Letter A
SW/NW	SE/NW	SW/NE	SE/NE
Unit Letter E	Unit Letter F	Unit Letter G	Unit Letter H
NW/SW	NE/SW	NW/SE	NE/SE
Unit Letter L	Unit Letter K	Unit Letter J	Unit Letter I
SW/SW	SE/SW	SW/SE	SE/SE
Unit Letter M	Unit Letter N	Unit Letter O	Unit Letter P

3

4

📍 Location

🟠 OCD

🟢 USGS

🟡 SEO

🟣 All Databases



**Laboratory Analytical Results Summary  
Federal 12-1H Battery**

		Sample	SP1 @ 1'	SP1 @ 3'	SP1 @ 5'	SP1 @ 8'	SP1 @ 9'	SP1 @ 10'
Analyte	Method	Date	1/23/17	1/23/17	1/23/17	1/23/17	1/23/17	1/23/17
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	n/a	n/a	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a	n/a	n/a	n/a
Chloride	SM4500Cl-B		4800	6560	17400	3840	816	32
GRO	TPH 8015M		<10.0	n/a	n/a	n/a	n/a	n/a
DRO	TPH 8015M		11.2	n/a	n/a	n/a	n/a	n/a

		Sample	SP2 @ 1'	SP2 @ 3'	SP2 @ 4'	SP2 @ 5'	SP2 @ 6'
Analyte	Method	Date	1/23/17	1/23/17	1/23/17	1/23/17	1/23/17
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Chloride	SM4500Cl-B		2640	5280	448	16	32

		Sample	SP3 @ 1'	SP3 @ 3'	SP3 @ 4'	SP3 @ 5'
Analyte	Method	Date	1/23/17	1/23/17	1/23/17	1/23/17
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Chloride	SM4500Cl-B		5040	2000	688	<16.0

		Sample	SP4 @ 1'	SP4 @ 3'	SP4 @ 4'
Analyte	Method	Date	1/23/17	1/23/17	1/23/17
			mg/Kg	mg/Kg	mg/Kg
Chloride	SM4500Cl-B		4320	2360	<16.0

		Sample	SP5 @ 1'	SP5 @ 3'	SP5 @ 5'	SP5 @ 6'	SP5 @ 7'
Analyte	Method	Date	1/23/17	1/23/17	1/23/17	1/24/17	1/24/17
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	n/a	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	n/a	n/a	n/a	n/a
Chloride	SM4500Cl-B		4160	16000	10100	80	96
GRO	TPH 8015M		<10.0	n/a	n/a	n/a	n/a
DRO	TPH 8015M		<10.0	n/a	n/a	n/a	n/a

		Sample	SP6 @ 1'	SP6 @ 3'	SP6 @ 5'	SP6 @ 6'
Analyte	Method	Date	1/24/17	1/24/17	1/24/17	1/24/17
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Chloride	SM4500Cl-B		14000	34000	400	48

		Sample	SP7 @ 1'	SP7 @ 3'	SP7 @ 5'	SP7 @ 6'
Analyte	Method	Date	1/24/17	1/24/17	1/24/17	1/24/17
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Chloride	SM4500Cl-B		15200	31200	432	48

		Sample	SP8 @ 1'	SP8 @ 3'	SP8 @ 5'	SP8 @ 6'
Analyte	Method	Date	1/24/17	1/24/17	1/24/17	1/24/17
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Chloride	SM4500Cl-B		384	17200	208	32

		Sample	SP9 @ 1'	SP9 @ 3'	SP9 @ 5'	SP9 @ 6'
Analyte	Method	Date	1/23/17	1/23/17	1/23/17	1/23/17
			mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	n/a	n/a	n/a
Ethylbenz	BTEX 8021B		<0.050	n/a	n/a	n/a
Total Xyle	BTEX 8021B		<0.150	n/a	n/a	n/a
Total BTE	BTEX 8021B		<0.300	n/a	n/a	n/a
Chloride	SM4500Cl-B		14400	4400	208	32
GRO	TPH 8015M		<10.0	n/a	n/a	n/a
DRO	TPH 8015M		<10.0	n/a	n/a	n/a

		Sample	NORTH @ 1'
Analyte	Method	Date	1/24/17
			mg/Kg
Chloride	SM4500Cl-B		112

		Sample	EAST @ 1'
Analyte	Method	Date	1/24/17
			mg/Kg
Chloride	SM4500Cl-B		80

		Sample	WEST @ 1'
Analyte	Method	Date	1/24/17
			mg/Kg
Chloride	SM4500Cl-B		64

		Sample	SOUTH @ 1'
Analyte	Method	Date	1/24/17
			mg/Kg
Chloride	SM4500Cl-B		96



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

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February 01, 2017

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: FEDERAL 12 - 1H BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 01/26/17 17:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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:**

BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

Received: 01/26/2017  
 Reported: 02/01/2017  
 Project Name: FEDERAL 12 - 1H BATTERY  
 Project Number: NONE GIVEN  
 Project Location: LEA COUNTY, NM

Sampling Date: 01/23/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Celey D. Keene

**Sample ID: SP 1 @ 1' (H700202-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/31/2017	ND	1.98	98.8	2.00	0.451	
Toluene*	<0.050	0.050	01/31/2017	ND	2.01	100	2.00	0.376	
Ethylbenzene*	<0.050	0.050	01/31/2017	ND	2.06	103	2.00	0.437	
Total Xylenes*	<0.150	0.150	01/31/2017	ND	5.86	97.7	6.00	0.156	
Total BTEX	<0.300	0.300	01/31/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4800	16.0	01/30/2017	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/28/2017	ND	192	96.1	200	0.0655	
DRO >C10-C28	11.2	10.0	01/28/2017	ND	208	104	200	2.56	

Surrogate: 1-Chlorooctane 85.0 % 35-147

Surrogate: 1-Chlorooctadecane 94.1 % 28-171

**Sample ID: SP 1 @ 3' (H700202-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6560	16.0	01/30/2017	ND	432	108	400	3.64	

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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:**

BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

Received:	01/26/2017	Sampling Date:	01/23/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	FEDERAL 12 - 1H BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 1 @ 5' (H700202-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	17400	16.0	01/30/2017	ND	432	108	400	3.64		

**Sample ID: SP 1 @ 8' (H700202-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3840	16.0	01/30/2017	ND	432	108	400	3.64		

**Sample ID: SP 1 @ 9' (H700202-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	816	16.0	01/30/2017	ND	432	108	400	3.64		

**Sample ID: SP 1 @ 10' (H700202-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	01/31/2017	ND	432	108	400	3.64		

**Sample ID: SP 2 @ 1' (H700202-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2640	16.0	01/31/2017	ND	432	108	400	3.64		

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

Received:	01/26/2017	Sampling Date:	01/23/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	FEDERAL 12 - 1H BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 2 @ 3' (H700202-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5280	16.0	01/31/2017	ND	432	108	400	3.64		

**Sample ID: SP 2 @ 4' (H700202-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	448	16.0	01/31/2017	ND	432	108	400	3.64		

**Sample ID: SP 2 @ 5' (H700202-10)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	01/31/2017	ND	432	108	400	3.64		

**Sample ID: SP 2 @ 6' (H700202-11)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	01/31/2017	ND	432	108	400	3.64		

**Sample ID: SP 3 @ 1' (H700202-12)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5040	16.0	01/31/2017	ND	432	108	400	3.64		

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

Received:	01/26/2017	Sampling Date:	01/23/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	FEDERAL 12 - 1H BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 3 @ 3' (H700202-13)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2000	16.0	01/31/2017	ND	432	108	400	3.64		

**Sample ID: SP 3 @ 4' (H700202-14)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	688	16.0	01/31/2017	ND	432	108	400	3.64	

**Sample ID: SP 3 @ 5' (H700202-15)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	01/31/2017	ND	432	108	400	3.64		

**Sample ID: SP 4 @ 1' (H700202-16)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4320	16.0	01/31/2017	ND	432	108	400	3.64	

**Sample ID: SP 4 @ 3' (H700202-17)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2360	16.0	01/31/2017	ND	432	108	400	3.64	

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

Received:	01/26/2017	Sampling Date:	01/23/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	FEDERAL 12 - 1H BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 4 @ 4' (H700202-18)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	01/31/2017	ND	432	108	400	3.64		

**Sample ID: SP 5 @ 1' (H700202-19)**

BTX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/31/2017	ND	1.98	98.8	2.00	0.451	
Toluene*	<0.050	0.050	01/31/2017	ND	2.01	100	2.00	0.376	
Ethylbenzene*	<0.050	0.050	01/31/2017	ND	2.06	103	2.00	0.437	
Total Xylenes*	<0.150	0.150	01/31/2017	ND	5.86	97.7	6.00	0.156	
Total BTX	<0.300	0.300	01/31/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4160	16.0	01/31/2017	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	01/28/2017	ND	192	96.1	200	0.0655	
DRO >C10-C28	<10.0	10.0	01/28/2017	ND	208	104	200	2.56	

Surrogate: 1-Chlorooctane 92.5 % 35-147

Surrogate: 1-Chlorooctadecane 83.4 % 28-171

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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:**

BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

Received:	01/26/2017	Sampling Date:	01/23/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	FEDERAL 12 - 1H BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 5 @ 3' (H700202-20)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16000	16.0	01/31/2017	ND	432	108	400	0.00		

**Sample ID: SP 5 @ 5' (H700202-21)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10100	16.0	01/31/2017	ND	432	108	400	0.00	

**Sample ID: SP 5 @ 6' (H700202-22)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	01/31/2017	ND	432	108	400	0.00		

**Sample ID: SP 5 @ 7' (H700202-23)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	01/31/2017	ND	432	108	400	0.00		

**Sample ID: SP 6 @ 1' (H700202-24)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	14000	16.0	01/31/2017	ND	432	108	400	0.00		

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

Received:	01/26/2017	Sampling Date:	01/24/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	FEDERAL 12 - 1H BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 6 @ 3' (H700202-25)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	34000	16.0	01/31/2017	ND	432	108	400	0.00		

**Sample ID: SP 6 @ 5' (H700202-26)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	400	16.0	02/01/2017	ND	432	108	400	0.00		

**Sample ID: SP 6 @ 6' (H700202-27)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	02/01/2017	ND	432	108	400	0.00		

**Sample ID: SP 7 @ 1' (H700202-28)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	15200	16.0	02/01/2017	ND	432	108	400	0.00	

**Sample ID: SP 7 @ 3' (H700202-29)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	31200	16.0	02/01/2017	ND	432	108	400	0.00		

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

Received:	01/26/2017	Sampling Date:	01/24/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	FEDERAL 12 - 1H BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 7 @ 5' (H700202-30)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	02/01/2017	ND	432	108	400	0.00	

**Sample ID: SP 7 @ 6' (H700202-31)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	02/01/2017	ND	432	108	400	0.00		

**Sample ID: SP 8 @ 1' (H700202-32)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	384	16.0	02/01/2017	ND	432	108	400	0.00		

**Sample ID: SP 8 @ 3' (H700202-33)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	17200	16.0	02/01/2017	ND	432	108	400	0.00		

**Sample ID: SP 8 @ 5' (H700202-34)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	02/01/2017	ND	432	108	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

Received:	01/26/2017	Sampling Date:	01/24/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	FEDERAL 12 - 1H BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 8 @ 6' (H700202-35)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/01/2017	ND	432	108	400	0.00		

**Sample ID: SP 9 @ 1' (H700202-36)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/31/2017	ND	1.98	98.8	2.00	0.451	
Toluene*	<0.050	0.050	01/31/2017	ND	2.01	100	2.00	0.376	
Ethylbenzene*	<0.050	0.050	01/31/2017	ND	2.06	103	2.00	0.437	
Total Xylenes*	<0.150	0.150	01/31/2017	ND	5.86	97.7	6.00	0.156	
Total BTEX	<0.300	0.300	01/31/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	14400	16.0	02/01/2017	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	01/28/2017	ND	192	96.1	200	0.0655	
DRO >C10-C28	<10.0	10.0	01/28/2017	ND	208	104	200	2.56	

Surrogate: 1-Chlorooctane 96.2 % 35-147

Surrogate: 1-Chlorooctadecane 105 % 28-171

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

Received:	01/26/2017	Sampling Date:	01/24/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	FEDERAL 12 - 1H BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 9 @ 3' (H700202-37)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4400	16.0	02/01/2017	ND	432	108	400	0.00		

**Sample ID: SP 9 @ 5' (H700202-38)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	02/01/2017	ND	432	108	400	0.00		

**Sample ID: SP 9 @ 6' (H700202-39)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/31/2017	ND	432	108	400	0.00	

**Sample ID: NORTH SAMPLE @ 1' (H700202-40)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	01/31/2017	ND	432	108	400	0.00	

**Sample ID: EAST SAMPLE @ 1' (H700202-41)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	01/31/2017	ND	432	108	400	0.00		

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

Received:	01/26/2017	Sampling Date:	01/24/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	FEDERAL 12 - 1H BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: WEST SAMPLE @ 1' (H700202-42)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	01/31/2017	ND	432	108	400	0.00		

**Sample ID: SOUTH SAMPLE @ 1' (H700202-43)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	01/31/2017	ND	432	108	400	0.00	

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### Notes and Definitions

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

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

Celey D. Keene, Lab Director/Quality Manager





## CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240  
(505) 393-2326 FAX (505) 393-2476

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: BBC International, Inc.

Project Manager: Cliff Brunson

Address: P.O. Box 805

City: Hobbs

State: NM Zip: 88241

Phone #: 575-397-6388

Fax #: 575-397-0397

Project #:

Project Owner: Oxy

Project Name: FEDERAL 12-1H BATTERY

Project Location: LEA COUNTY, NM

Sampler Name: JEFF ORNELAS

FOR LAB USE ONLY

## BILL TO

## ANALYSIS REQUEST

P.O. #:

Company: Oxy

Attn: Cassie Summers

Address:

City:

State: Zip:

Phone #:

Fax #:

Lab I.D.

Sample I.D.

H100202

SP1 @ 1'

SP1 @ 3'

SP1 @ 5'

SP1 @ 8'

SP1 @ 9'

SP1 @ 10'

SP2 @ 1'

SP2 @ 3'

SP2 @ 4'

SP2 @ 5'

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SP1 @ 1'

SP1 @ 3'

SP1 @ 5'

SP1 @ 8'

SP1 @ 9'

SP1 @ 10'

SP2 @ 1'

SP2 @ 3'

SP2 @ 4'

SP2 @ 5'

SP2 @ 5'

SP2 @ 5'

SP2 @ 5'

SP1 @ 1'

SP1 @ 3'

SP1 @ 5'

SP1 @ 8'

SP1 @ 9'

SP1 @ 10'

SP2 @ 1'

SP2 @ 3'

SP2 @ 4'

SP2 @ 5'

SP2 @ 5'

SP2 @ 5'

SP2 @ 5'

SP1 @ 1'

SP1 @ 3'

SP1 @ 5'

SP1 @ 8'

SP1 @ 9'

SP1 @ 10'

SP2 @ 1'

SP2 @ 3'

SP2 @ 4'

SP2 @ 5'

SP2 @ 5'

SP2 @ 5'

SP2 @ 5'

SP1 @ 1'

SP1 @ 3'

SP1 @ 5'

SP1 @ 8'

SP1 @ 9'





## CARDINAL LABORATORIES

 101 East Marland, Hobbs, NM 88240  
 (505) 393-2326 FAX (505) 393-2476

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: BBC International, Inc.

Project Manager: Cliff Brunson

Address: P.O. Box 805

City: Hobbs

State: NM Zip: 88241

Phone #: 575-397-6388

Fax #: 575-397-0397

Project #:

Project Owner: Oxy

Project Name: FEDERAL 12-1H BATTERY

Project Location: LEA COUNTY, NM

Sampler Name: JEFF ORNELAS

FOR LAB USE ONLY

## BILL TO

## ANALYSIS REQUEST

P.O. #:

Company: OKD

Attn: CASEY SHANNON

Address:

City:

State: Zip:

Phone #:

Fax #:

Lab I.D.

Sample I.D.

H700X02

(G)RAB OR (C)OMP.

# CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

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**CARDINAL LABORATORIES**

101 East Marland, Hobbs, NM 88240  
(505) 393-2326 FAX (505) 393-2476

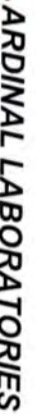
**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

305

Company Name: BBC International, Inc.		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>																					
Project Manager: Cliff Brunson		P.O. #:																							
Address: P.O. Box 805		Company: Oxy																							
City: Hobbs		Attn: Oxy Summary																							
State: NM Zip: 88241		Address:																							
Phone #: 575-397-6388 Fax #: 575-397-0397		City:																							
Project #: Project Owner: Oxy		State: Zip:																							
Project Name: FEDERAL 12-1H BATTERY		Phone #:																							
Project Location: LEA COUNTY, NM		Fax #:																							
Sampler Name: JEFF ORNELAS																									
FOR LAB USE ONLY																									
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX				PRESERV.		SAMPLING											
H100202		SP5 @ 5'		1		1		GROUNDWATER				1		1/23/17 3:33 PM		✓									
21		SP5 @ 6'		1		1		WASTEWATER				1		1/24/17 8:30 AM		✓									
22		SP5 @ 7'		1		1		SOIL				1		1/24/17 8:33 AM		✓									
23		SP6 @ 1'		1		1		OIL				1		1/24/17 9:15 AM		✓									
24		SP6 @ 3'		1		1		SLUDGE				1		1/24/17 9:32 AM		✓									
25		SP6 @ 5'		1		1		OTHER :				1		1/24/17 10:15 AM		✓									
26		SP6 @ 6'		1		1		ACID/BASE:				1		1/24/17 10:33 AM		✓									
27		SP7 @ 1'		1		1		ICE / COOL				1		1/24/17 11:00 AM		✓									
28		SP7 @ 3'		1		1		OTHER :				1		1/24/17 11:30 AM		✓									
29		SP7 @ 5'		1		1						1		1/24/17 11:55 AM		✓									
PLEASE NOTE: Laboratory and Damages. Cardinal's liability and client's exclusive remedy for any claim arising from this contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.																									
Relinquished By: [Signature]		Date: 1/24/17		Received By: [Signature]		Date: 1/24/17		Time: 3:00pm		Received By: [Signature]		Date: 1/24/17		Time: 5:00											
Delivered By: (Circle One)		Sample Condition		Intact		Checked By: [Signature]		Code		Intact		Checked By: [Signature]		Code											
Sampler - UPS - Bus - Other:		-590c		Yes		No		Yes		No		Yes		No											

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476





101 East Marland, Hobbs, NM 88240  
(505) 393-2326 FAX (505) 393-2476

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 17 of 18



## ORDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240  
(505) 393-2326 FAX (505) 393-2476

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: BBC International, Inc.										<b>BILL TO</b>										ANALYSIS REQUEST																			
Project Manager: Cliff Brunson										P.O. #:																													
Address: P.O. Box 805										Company: <i>Oxy</i>																													
City: Hobbs										Attn: <i>Cliff Brunson</i>																													
Phone #: 575-397-6388										State: NM Zip: 88241																													
Fax #: 575-397-0397										Address:																													
Project #:										City:																													
Project Name: FEDERAL 12-1H BATTERY										State: Zip:																													
Project Location: LEA COUNTY, NM										Phone #:																													
Sampler Name: JEFF ORNELAS										Fax #:																													
FOR LAB USE ONLY										MATRIX										PRESERV										SAMPLING									
Lab I.D. Sample I.D.										(G)RAB OR (C)OMP.										DATE										TIME									
										# CONTAINERS																													
<div style="position: relative; height: 100px;"> <div style="position: absolute; top: 0; left: 0; transform: rotate(-45deg); font-weight: bold;">HP 1/24/17</div> </div>										GROUNDWATER																													
										WASTEWATER																													
										SOIL																													
										OIL																													
										SLUDGE																													
OTHER :																																							
ACID/BASE:																																							
ICE / COOL																																							
OTHER :																																							
41 EAST SAMPLE @ 1'										1/24/17										3:33 PM																			
42 WEST SAMPLE @ 1'										1/24/17										3:40 PM																			
43 SOUTH SAMPLE @ 1'										1/24/17										3:45 PM																			

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

Relinquished By: <i>Jeff Ornelas</i>		Date: <i>1/24/17</i>		Received By: <i>Cliff Brunson</i>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Relinquished By: <i>Jeff Ornelas</i>		Date: <i>1/24/17</i>		Received By: <i>Cliff Brunson</i>		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
REMARKS:									

Delivered By: (Circle One) *5.9c*

Sampler - UPS - Bus - Other:

Sample Condition: ☒ Intact ☐ Damaged

Checked By: (Initials) *ca #15*



Page 42 of 147  
Received by OGD: 12/19/2023 11:55:35 AM  
Released to Imaging: 12/26/2023 11:37:05 AM

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Oxy Permian Ltd.	Contact	Casey Summers
Address	PO Box 4294; Houston, TX 77210	Telephone No.	(575) 513-8289
Facility Name	Federal 12-1H Battery	Facility Type	Battery
Surface Owner	BLM	Mineral Owner	
		API No.	30-015-40840

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	7	23S	31E					Eddy County, NM

Latitude N 32.32150° Longitude W 103.81203°

NATURE OF RELEASE

Type of Release	Produced water	Volume of Release	20 bbls	Volume Recovered	10 bbls
Source of Release	Ruptured water transfer line	Date and Hour of Occurrence	12/16/2016	Date and Hour of Discovery	
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Mike Bratcher, Heather Patterson, Crystal Weaver- NMOCD; Shelly Tucker- BLM		
By Whom?	Kathy@ BBC International, Inc.	Date and Hour	12/16/2016 @ 4:43 pm		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

A ruptured water transfer line leaked 20 bbls of produced water into the pasture. A vacuum truck recovered 10 bbls of produced water and the line was repaired.

Describe Area Affected and Cleanup Action Taken.\*

The affected area is approximately 175' x 75' off location in the pasture. Remediation will be completed in accordance with a plan approved by both NMOCD and the BLM.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature:	<b>OIL CONSERVATION DIVISION</b>		
Printed Name: Casey Summers	Approved by Environmental Specialist:		
Title: NM Environmental Advisor	Approval Date:	Expiration Date:	
E-mail Address: Casey.Summers@oxy.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 12-29-16	Phone: (575) 513-8289		

\* Attach Additional Sheets If Necessary

**From:** Bratcher, Mike, EMNRD  
**To:** [Cliff Brunson](#)  
**Cc:** [Weaver, Crystal, EMNRD](#); [Casey Summers](#); [Jennifer Hudgens](#); [Ken Swinney](#); [Jennifer Gilkey](#); [Kathy Purvis](#); [Tucker, Shelly](#)  
**Subject:** RE: OXY - Federal 12-1H Battery (2RP-4053) - Remediation Plan  
**Date:** Wednesday, February 15, 2017 1:40:11 PM

---

RE: Occidental Permian \* Fed 12-1H Battery \* **2RP-4053** \* DOR: 12/16/16

Cliff,

Your proposal for remediation of the above referenced release is approved. Please advise once remedial activities have been scheduled. Federal sites require BLM approval.

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

If you have any questions or concerns, and for notification, please contact me.

Mike Bratcher  
NMOCD District 2  
811 S. First St.  
Artesia NM 88210  
575-748-1283 Ext 108  
[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)

---

**From:** Cliff Brunson [<mailto:cbrunson@bbcinternational.com>]  
**Sent:** Tuesday, February 7, 2017 3:17 PM  
**To:** Bratcher, Mike, EMNRD <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>  
**Cc:** Weaver, Crystal, EMNRD <[Crystal.Weaver@state.nm.us](mailto:Crystal.Weaver@state.nm.us)>; Casey Summers <[Casey\\_Summers@oxy.com](mailto:Casey_Summers@oxy.com)>; Jennifer Hudgens <[jennifer\\_hudgens@oxy.com](mailto:jennifer_hudgens@oxy.com)>; Ken Swinney <[kswinney@bbcinternational.com](mailto:kswinney@bbcinternational.com)>; Jennifer Gilkey <[jgilkey@bbcinternational.com](mailto:jgilkey@bbcinternational.com)>; Kathy Purvis <[kathy@bbcinternational.com](mailto:kathy@bbcinternational.com)>  
**Subject:** OXY - Federal 12-1H Battery (2RP-4053) - Remediation Plan

Mike,

This e-mail is to confirm our discussion concerning the remediation plan for the OXY Federal 12-1H Battery release. I have attached the information packet that we used in our discussion with a cover page describing the remediation plan that we agreed upon.

If you would please reply via e-mail with your concurrence on this plan, it would be greatly appreciated.

Thanks, Cliff

Cliff P. Brunson, CEI, CRS  
President  
BBC International, Inc.  
World-Wide Environmental Specialists  
Mailing Address:  
P. O. Box 805  
Hobbs, NM 88241-0805 USA  
Shipping Address:  
1324 W. Marland St.  
Hobbs, NM 88240 USA  
Phone: (575) 397-6388  
Fax: (575) 397-0397  
E-Mail: [cbrunson@bbcinternational.com](mailto:cbrunson@bbcinternational.com)



\*\*\*\*\*

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\*\*\*\*\*



**From:** Tucker, Shelly  
**To:** [Cliff Brunson](#)  
**Cc:** [Casey Summers](#); [Jennifer Hudgens](#); [Ken Swinney](#); [Jennifer Gilkey](#); [Kathy Purvis](#)  
**Subject:** Re: OXY - Federal 12-1H Battery - Remediation Plan  
**Date:** Tuesday, February 14, 2017 2:46:53 PM

---

BLM concurs with the NMOCD approval.

If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

**Shelly J Tucker**

Environmental Protection Specialist  
O&G Spill/Release Coordinator

Bureau of Land Management  
620 E. Greene St  
Carlsbad, NM 88220

575.234.5905 - Direct  
575.361.0084 - Cellular  
575.234.6235 - Emergency Spill Number

[stucker@blm.gov](mailto:stucker@blm.gov)

The **BLM acceptance/approval does not** relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment or if the location fails to reclaim properly. In such an event that the location does not revegetate, or future issues with contaminants are encountered, the operator will be asked to address the issues until the contaminant issues are fully mitigated and the location is successfully reclaimed. In addition, BLM approval does not relieve the operator of responsibility for compliance with any other federal, state or local laws/regulations.

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On Tue, Feb 7, 2017 at 3:29 PM, Cliff Brunson <[cbrunson@bbcinternational.com](mailto:cbrunson@bbcinternational.com)> wrote:

Shelly,

I have attached a remediation plan for the OXY Federal 12-1H Battery release. This plan has been approved by Mike Bratcher of the NMOCD. OXY is requesting the BLM's approval of this plan as well. Upon your review of the materials, it would be appreciated if

you would respond via email with the BLM's approval.

If you have any questions, please let me know.

Thanks, Cliff

Cliff P. Brunson, CEI, CRS

President

BBC International, Inc.

World-Wide Environmental Specialists

Mailing Address:

P. O. Box 805

Hobbs, NM 88241-0805 USA

Shipping Address:

1324 W. Marland St.

Hobbs, NM 88240 USA

Phone: (575) 397-6388

Fax: (575) 397-0397

E-Mail: [cbrunson@bbcinternational.com](mailto:cbrunson@bbcinternational.com)



\*\*\*\*\*

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\*\*\*\*\*




# New Mexico Office of the State Engineer

## Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
C	02492 POD2	3	2	2	07	23S	31E	611767	3576996 

<b>Driller License:</b>	1509	<b>Driller Company:</b>	BMS DRILLING COMPANY	
<b>Driller Name:</b>	ROYBAL, JOE D. (LD)			
<b>Drill Start Date:</b>	05/14/2012	<b>Drill Finish Date:</b>	05/31/2012	<b>Plug Date:</b>
<b>Log File Date:</b>	08/27/2013	<b>PCW Rev Date:</b>		<b>Source:</b> Shallow
<b>Pump Type:</b>		<b>Pipe Discharge Size:</b>		<b>Estimated Yield:</b> 30 GPM
<b>Casing Size:</b>	6.00	<b>Depth Well:</b>	400 feet	<b>Depth Water:</b> 125 feet

<b>Meter Number:</b>	16563	<b>Meter Make:</b>	MASTERMETER
<b>Meter Serial Number:</b>	53527168	<b>Meter Multiplier:</b>	1.0000
<b>Number of Dials:</b>	9	<b>Meter Type:</b>	Diversion
<b>Unit of Measure:</b>	Gallons	<b>Return Flow Percent:</b>	
<b>Usage Multiplier:</b>		<b>Reading Frequency:</b>	

### Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount Online
01/01/2015	2015	39508400	A	RPT		0
04/01/2015	2015	47638000	A	RPT		24.949
04/30/2015	2015	51651000	A	RPT		12.315
05/31/2015	2015	56066600	A	RPT		13.551
07/01/2015	2015	58740300	A	RPT		8.205
08/01/2015	2015	62357200	A	RPT		11.100
08/31/2015	2015	66100700	A	RPT		11.488
10/01/2015	2015	69225500	A	RPT		9.590
12/01/2015	2015	76310300	A	RPT		21.742
01/01/2016	2016	76310300	A	RPT		0
02/01/2016	2016	76310300	A	RPT		0
03/02/2016	2016	78841100	A	RPT		7.767
04/01/2016	2016	80952800	A	RPT		6.481
05/01/2016	2016	82055300	A	RPT		3.383
06/01/2016	2016	85605600	A	RPT		10.895
07/01/2016	2016	88115890	A	RPT		7.704
07/02/2016	2016	22996000	A	RPT		0
08/01/2016	2016	23851600	A	RPT		2.626
10/01/2016	2016	29486000	A	RPT		17.291
11/01/2016	2016	29738900	A	RPT		0.776
12/01/2016	2016	29738900	A	RPT		0
12/31/2016	2016	29738900	A	RPT		0

<b>**YTD Meter Amounts:</b>	<b>Year</b>	<b>Amount</b>
	2015	112.940

2016 56.923

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x

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The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

---

12/7/23 9:37 AM

POINT OF DIVERSION SUMMARY

**Beaux Jennings**

---

**From:** Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>  
**Sent:** Monday, September 18, 2023 2:36 PM  
**To:** Beaux Jennings  
**Cc:** Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD  
**Subject:** RE: [EXTERNAL] Federal 12-1H Battery (RP No. 2RP-4053)

You don't often get email from scott.rodgers@emnrd.nm.gov. [Learn why this is important](#)

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

The OCD has received your notification. When reporting sampling, it is required to provide and date and time for each location. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

**Scott Rodgers** • Environmental Specialist  
Environmental Bureau  
EMNRD - Oil Conservation Division  
8801 Horizon Blvd. NE, Suite 260 | Albuquerque, NM 87113  
505.469.1830 | [scott.rodgers@emnrd.nm.gov](mailto:scott.rodgers@emnrd.nm.gov)  
<http://www.emnrd.nm.gov/oed>



---

**From:** Beaux Jennings <bjennings@ensolum.com>  
**Sent:** Monday, September 18, 2023 12:44 PM  
**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>  
**Subject:** [EXTERNAL] Federal 12-1H Battery (RP No. 2RP-4053)

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 provide notification for sampling activities that will be conducted at the Federal 12-1H Battery (RP No. 2RP-4053) the week of September 18, 2023. The samples may be used for closure, provided that they meet applicable closure limits.

Thank you,



**Beaux Jennings**  
Senior Project Manager  
210-219-8858  
**Ensolum, LLC**  
in f t





## APPENDIX C

### Photographic Documentation





View of initial spill, facing southeast.



View of initial excavation activities, facing northwest.



Date & Time: Tue, Sep 12, 2023 at 09:36:01 MDT  
Position: 032.321322°N / 103.811871°W ( $\pm 15.6$ ft)  
Altitude: 3323ft ( $\pm 11.1$ ft)  
Datum: WGS-84  
Azimuth/Bearing: 273° N87W 4853mils True ( $\pm 18^\circ$ )  
Elevation Angle:  $-11.9^\circ$   
Horizon Angle:  $-01.2^\circ$   
Zoom: 0.5X



View of initial excavation activities, facing northwest.

Date & Time: Tue, Sep 12, 2023 at 11:45:25 MDT  
Position: 032.321383°N / 103.811775°W ( $\pm 44.2$ ft)  
Altitude: 3296ft ( $\pm 52.5$ ft)  
Datum: WGS-84  
Azimuth/Bearing: 023° N23E 0409mils True ( $\pm 32^\circ$ )  
Elevation Angle:  $-05.8^\circ$   
Horizon Angle:  $+00.7^\circ$   
Zoom: 0.5X



View of initial excavation activities, facing northeast.



## APPENDIX D

### Table

**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 Federal 12-1H Battery  
 Oxy USA Inc.  
 Eddy County, New Mexico  
 Ensolum Project No. 03B1417058

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
Floor Sample Analytical Results											
FS-1	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-2	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	192
FS-3	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	48.0
FS-4	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-5	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	80.0
FS-6	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	48.0
FS-7	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-8	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	48.0
FS-9	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	96.0
FS-10	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-11	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-12	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	16.0
FS-13	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-14	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	16.0
FS-15	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-16	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	16.0
FS-17	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	80.0
FS-18	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	16.0
FS-19	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	48.0
FS-20	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	16.0
FS-21	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-22	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	16.0
FS-23	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	16.0
FS-24	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	48.0
FS-25	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	48.0
FS-26	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	64.0
FS-27	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	64.0
FS-28	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-29	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-30	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	48.0

**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 Federal 12-1H Battery  
 Oxy USA Inc.  
 Eddy County, New Mexico  
 Ensolum Project No. 03B1417058

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)
<b>New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (&gt; 100 feet)</b>			<b>10</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>50</b>	<b>1,000</b>	<b>NE</b>	<b>2,500</b>	<b>20,000</b>
FS-31	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	320
FS-32	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	16.0
FS-33	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<16.0
FS-34	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-35	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	16.0
FS-36	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-37	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	16.0
FS-38	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	16.0
FS-39	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-40	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-41	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-42	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	48.0
FS-43	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	304
FS-44	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	80.0
FS-45	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-46	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-47	9/12/2023	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<16.0
FS-48	9/12/2023	6	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	2,200
<b>Sidewall Sample Analytical Results</b>											
SW-1	9/12/2023	0 - 3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	464
SW-2	9/12/2023	0 - 3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	16.0
SW-3	9/12/2023	0 - 3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<16.0
SW-4	9/12/2023	0 - 3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<16.0
SW-5	9/12/2023	0 - 3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	656
	9/19/2023	0 - 3	NS					NS			288
SW-6	9/12/2023	0 - 3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	48.0
SW-7	9/12/2023	0 - 3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	64.0
SW-8	9/12/2023	0 - 3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	96.0
SW-9	9/12/2023	0 - 6	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	112
SW-10	9/12/2023	0 - 6	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
SW-11	9/12/2023	0 - 3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	224
SW-12	9/12/2023	0 - 3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0



**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 Federal 12-1H Battery  
 Oxy USA Inc.  
 Eddy County, New Mexico  
 Ensolum Project No. 03B1417058

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
Delineation Sample Analytical Results											
DS-1	9/19/2023	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	48.0
DS-2	9/19/2023	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
DS-3	9/19/2023	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<16.0
DS-4	9/19/2023	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<16.0
DS-5	9/19/2023	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
DS-6	9/19/2023	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<16.0
DS-7	9/19/2023	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<16.0
DS-8	9/19/2023	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	16.0
DS-9	9/19/2023	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0

 Over Ecavated and/or Re-Sampled

bgs: below ground surface

mg/kg: milligrams per kilogram

NE: Not Established

NS: Not Sampled

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 Data Sheets & Chain-of-Custody Documentation



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

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September 14, 2023

BEAUX JENNINGS

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: FEDERAL 12 - 1 H BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 09/12/23 14:16.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 1 3' (H234928-01)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/12/2023	ND	2.09	104	2.00	0.952	
Toluene*	<0.050	0.050	09/12/2023	ND	2.09	105	2.00	2.89	
Ethylbenzene*	<0.050	0.050	09/12/2023	ND	2.05	102	2.00	1.01	
Total Xylenes*	<0.150	0.150	09/12/2023	ND	6.17	103	6.00	0.610	
Total BTX	<0.300	0.300	09/12/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/13/2023	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	09/12/2023	ND	201	100	200	3.58	
DRO >C10-C28*	<10.0	10.0	09/12/2023	ND	211	106	200	0.345	
EXT DRO >C28-C36	<10.0	10.0	09/12/2023	ND					

Surrogate: 1-Chlorooctane 84.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.5 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 2 3' (H234928-02)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/12/2023	ND	2.09	104	2.00	0.952	
Toluene*	<0.050	0.050	09/12/2023	ND	2.09	105	2.00	2.89	
Ethylbenzene*	<0.050	0.050	09/12/2023	ND	2.05	102	2.00	1.01	
Total Xylenes*	<0.150	0.150	09/12/2023	ND	6.17	103	6.00	0.610	
Total BTEx	<0.300	0.300	09/12/2023	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	192	16.0	09/13/2023	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	09/12/2023	ND	201	100	200	3.58	
DRO >C10-C28*	<10.0	10.0	09/12/2023	ND	211	106	200	0.345	
EXT DRO >C28-C36	<10.0	10.0	09/12/2023	ND					

Surrogate: 1-Chlorooctane 85.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.8 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 3 3' (H234928-03)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/12/2023	ND	2.09	104	2.00	0.952	
Toluene*	<0.050	0.050	09/12/2023	ND	2.09	105	2.00	2.89	
Ethylbenzene*	<0.050	0.050	09/12/2023	ND	2.05	102	2.00	1.01	
Total Xylenes*	<0.150	0.150	09/12/2023	ND	6.17	103	6.00	0.610	
Total BTEx	<0.300	0.300	09/12/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	09/13/2023	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	09/12/2023	ND	201	100	200	3.58	
DRO >C10-C28*	<10.0	10.0	09/12/2023	ND	211	106	200	0.345	
EXT DRO >C28-C36	<10.0	10.0	09/12/2023	ND					

Surrogate: 1-Chlorooctane 83.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
BEAUX JENNINGS  
705 W WADLEY AVE.  
MIDLAND TX, 79705  
Fax To:

Received: 09/12/2023  
Reported: 09/14/2023  
Project Name: FEDERAL 12 - 1 H BATTERY  
Project Number: 03B1417098  
Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 4 3' (H234928-04)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/12/2023	ND	2.09	104	2.00	0.952		
Toluene*	<0.050	0.050	09/12/2023	ND	2.09	105	2.00	2.89		
Ethylbenzene*	<0.050	0.050	09/12/2023	ND	2.05	102	2.00	1.01		
Total Xylenes*	<0.150	0.150	09/12/2023	ND	6.17	103	6.00	0.610		
Total BTEx	<0.300	0.300	09/12/2023	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	32.0	16.0	09/13/2023	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	09/12/2023	ND	201	100	200	3.58	
DRO >C10-C28*	<10.0	10.0	09/12/2023	ND	211	106	200	0.345	
EXT DRO >C28-C36	<10.0	10.0	09/12/2023	ND					

Surrogate: 1-Chlorooctane 86.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 5 3' (H234928-05)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/12/2023	ND	2.09	104	2.00	0.952	
Toluene*	<0.050	0.050	09/12/2023	ND	2.09	105	2.00	2.89	
Ethylbenzene*	<0.050	0.050	09/12/2023	ND	2.05	102	2.00	1.01	
Total Xylenes*	<0.150	0.150	09/12/2023	ND	6.17	103	6.00	0.610	
Total BTEx	<0.300	0.300	09/12/2023	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	80.0	16.0	09/13/2023	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	09/12/2023	ND	201	100	200	3.58	
DRO >C10-C28*	<10.0	10.0	09/12/2023	ND	211	106	200	0.345	
EXT DRO >C28-C36	<10.0	10.0	09/12/2023	ND					

Surrogate: 1-Chlorooctane 85.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 6 3' (H234928-06)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/12/2023	ND	2.09	104	2.00	0.952		
Toluene*	<0.050	0.050	09/12/2023	ND	2.09	105	2.00	2.89		
Ethylbenzene*	<0.050	0.050	09/12/2023	ND	2.05	102	2.00	1.01		
Total Xylenes*	<0.150	0.150	09/12/2023	ND	6.17	103	6.00	0.610		
Total BTEx	<0.300	0.300	09/12/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	09/13/2023	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	09/12/2023	ND	201	100	200	3.58	
DRO >C10-C28*	<10.0	10.0	09/12/2023	ND	211	106	200	0.345	
EXT DRO >C28-C36	<10.0	10.0	09/12/2023	ND					

Surrogate: 1-Chlorooctane 83.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 7 3' (H234928-07)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.09	104	2.00	0.952	
Toluene*	<0.050	0.050	09/13/2023	ND	2.09	105	2.00	2.89	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	2.05	102	2.00	1.01	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	6.17	103	6.00	0.610	
Total BTEx	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/13/2023	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	09/12/2023	ND	201	100	200	3.58	
DRO >C10-C28*	<10.0	10.0	09/12/2023	ND	211	106	200	0.345	
EXT DRO >C28-C36	<10.0	10.0	09/12/2023	ND					

Surrogate: 1-Chlorooctane 83.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 8 3' (H234928-08)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.09	104	2.00	0.952	
Toluene*	<0.050	0.050	09/13/2023	ND	2.09	105	2.00	2.89	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	2.05	102	2.00	1.01	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	6.17	103	6.00	0.610	
Total BTEx	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	09/13/2023	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	09/12/2023	ND	201	100	200	3.58	
DRO >C10-C28*	<10.0	10.0	09/12/2023	ND	211	106	200	0.345	
EXT DRO >C28-C36	<10.0	10.0	09/12/2023	ND					

Surrogate: 1-Chlorooctane 83.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.5 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 9 3' (H234928-09)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.09	104	2.00	0.952	
Toluene*	<0.050	0.050	09/13/2023	ND	2.09	105	2.00	2.89	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	2.05	102	2.00	1.01	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	6.17	103	6.00	0.610	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	09/13/2023	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	09/12/2023	ND	201	100	200	3.58	
DRO >C10-C28*	<10.0	10.0	09/12/2023	ND	211	106	200	0.345	
EXT DRO >C28-C36	<10.0	10.0	09/12/2023	ND					

Surrogate: 1-Chlorooctane 84.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
BEAUX JENNINGS  
705 W WADLEY AVE.  
MIDLAND TX, 79705  
Fax To:

Received: 09/12/2023  
Reported: 09/14/2023  
Project Name: FEDERAL 12 - 1 H BATTERY  
Project Number: 03B1417098  
Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 10 3' (H234928-10)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.09	104	2.00	0.952	
Toluene*	<0.050	0.050	09/13/2023	ND	2.09	105	2.00	2.89	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	2.05	102	2.00	1.01	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	6.17	103	6.00	0.610	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/13/2023	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	09/12/2023	ND	201	100	200	3.58	
DRO >C10-C28*	<10.0	10.0	09/12/2023	ND	211	106	200	0.345	
EXT DRO >C28-C36	<10.0	10.0	09/12/2023	ND					

Surrogate: 1-Chlorooctane 87.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 11 3' (H234928-11)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.09	104	2.00	0.952	
Toluene*	<0.050	0.050	09/13/2023	ND	2.09	105	2.00	2.89	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	2.05	102	2.00	1.01	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	6.17	103	6.00	0.610	
Total BTEx	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/13/2023	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	09/12/2023	ND	201	100	200	3.58	
DRO >C10-C28*	<10.0	10.0	09/12/2023	ND	211	106	200	0.345	
EXT DRO >C28-C36	<10.0	10.0	09/12/2023	ND					

Surrogate: 1-Chlorooctane 87.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.6 % 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  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 12 3' (H234928-12)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.09	104	2.00	0.952	
Toluene*	<0.050	0.050	09/13/2023	ND	2.09	105	2.00	2.89	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	2.05	102	2.00	1.01	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	6.17	103	6.00	0.610	
Total BTEx	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/13/2023	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	09/12/2023	ND	201	100	200	3.58	
DRO >C10-C28*	<10.0	10.0	09/12/2023	ND	211	106	200	0.345	
EXT DRO >C28-C36	<10.0	10.0	09/12/2023	ND					

Surrogate: 1-Chlorooctane 86.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 13 3' (H234928-13)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.09	104	2.00	0.952	
Toluene*	<0.050	0.050	09/13/2023	ND	2.09	105	2.00	2.89	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	2.05	102	2.00	1.01	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	6.17	103	6.00	0.610	
Total BTEx	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/13/2023	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	09/12/2023	ND	201	100	200	3.58	
DRO >C10-C28*	<10.0	10.0	09/12/2023	ND	211	106	200	0.345	
EXT DRO >C28-C36	<10.0	10.0	09/12/2023	ND					

Surrogate: 1-Chlorooctane 84.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.2 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 14 3' (H234928-14)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.09	104	2.00	0.952	
Toluene*	<0.050	0.050	09/13/2023	ND	2.09	105	2.00	2.89	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	2.05	102	2.00	1.01	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	6.17	103	6.00	0.610	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	09/13/2023	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	09/12/2023	ND	201	100	200	3.58	
DRO >C10-C28*	<10.0	10.0	09/12/2023	ND	211	106	200	0.345	
EXT DRO >C28-C36	<10.0	10.0	09/12/2023	ND					

Surrogate: 1-Chlorooctane 89.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 15 3' (H234928-15)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.09	104	2.00	0.952	
Toluene*	<0.050	0.050	09/13/2023	ND	2.09	105	2.00	2.89	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	2.05	102	2.00	1.01	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	6.17	103	6.00	0.610	
Total BTEx	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/13/2023	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	09/13/2023	ND	201	100	200	3.58	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	211	106	200	0.345	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 87.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.5 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 16 3' (H234928-16)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.09	104	2.00	0.952	
Toluene*	<0.050	0.050	09/13/2023	ND	2.09	105	2.00	2.89	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	2.05	102	2.00	1.01	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	6.17	103	6.00	0.610	
Total BTEx	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	09/13/2023	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	09/13/2023	ND	201	100	200	3.58	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	211	106	200	0.345	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 83.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.8 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 17 3' (H234928-17)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.09	104	2.00	0.952	
Toluene*	<0.050	0.050	09/13/2023	ND	2.09	105	2.00	2.89	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	2.05	102	2.00	1.01	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	6.17	103	6.00	0.610	
Total BTEx	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	09/13/2023	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	09/13/2023	ND	201	100	200	3.58	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	211	106	200	0.345	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 81.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.8 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 18 3' (H234928-18)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.09	104	2.00	0.952	
Toluene*	<0.050	0.050	09/13/2023	ND	2.09	105	2.00	2.89	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	2.05	102	2.00	1.01	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	6.17	103	6.00	0.610	
Total BTEx	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/13/2023	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	09/13/2023	ND	197	98.7	200	11.3	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	210	105	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 82.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.8 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 19 3' (H234928-19)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.09	104	2.00	0.952	
Toluene*	<0.050	0.050	09/13/2023	ND	2.09	105	2.00	2.89	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	2.05	102	2.00	1.01	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	6.17	103	6.00	0.610	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	09/13/2023	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	09/13/2023	ND	197	98.7	200	11.3	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	210	105	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 78.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.8 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 20 3' (H234928-20)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.09	104	2.00	0.952	
Toluene*	<0.050	0.050	09/13/2023	ND	2.09	105	2.00	2.89	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	2.05	102	2.00	1.01	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	6.17	103	6.00	0.610	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	09/13/2023	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	09/13/2023	ND	197	98.7	200	11.3	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	210	105	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 83.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.6 % 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  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 21 3' (H234928-21)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.6	2.00	2.29	
Toluene*	<0.050	0.050	09/14/2023	ND	2.04	102	2.00	2.63	
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	2.11	106	2.00	2.34	
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.73	95.5	6.00	1.17	
Total BTX	<0.300	0.300	09/14/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	09/13/2023	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	09/13/2023	ND	197	98.7	200	11.3	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	210	105	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 82.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.3 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 22 3' (H234928-22)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.6	2.00	2.29		
Toluene*	<0.050	0.050	09/14/2023	ND	2.04	102	2.00	2.63		
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	2.11	106	2.00	2.34		
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.73	95.5	6.00	1.17		
Total BTX	<0.300	0.300	09/14/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/13/2023	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	09/13/2023	ND	197	98.7	200	11.3	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	210	105	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 98.5 % 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  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 23 3' (H234928-23)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.6	2.00	2.29	
Toluene*	<0.050	0.050	09/14/2023	ND	2.04	102	2.00	2.63	
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	2.11	106	2.00	2.34	
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.73	95.5	6.00	1.17	
Total BTX	<0.300	0.300	09/14/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/13/2023	ND	448	112	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	197	98.7	200	11.3	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	210	105	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 83.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.1 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 24 3' (H234928-24)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.6	2.00	2.29	
Toluene*	<0.050	0.050	09/14/2023	ND	2.04	102	2.00	2.63	
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	2.11	106	2.00	2.34	
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.73	95.5	6.00	1.17	
Total BTX	<0.300	0.300	09/14/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	09/13/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	197	98.7	200	11.3	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	210	105	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 91.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 25 3' (H234928-25)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2023	ND	1.95	97.6	2.00	2.29	
Toluene*	<0.050	0.050	09/14/2023	ND	2.04	102	2.00	2.63	
Ethylbenzene*	<0.050	0.050	09/14/2023	ND	2.11	106	2.00	2.34	
Total Xylenes*	<0.150	0.150	09/14/2023	ND	5.73	95.5	6.00	1.17	
Total BTX	<0.300	0.300	09/14/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	09/13/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	197	98.7	200	11.3	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	210	105	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 88.7 % 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  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 26 3' (H234928-26)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.02	101	2.00	2.03	
Toluene*	<0.050	0.050	09/13/2023	ND	2.04	102	2.00	2.65	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.97	98.5	2.00	2.76	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.92	98.7	6.00	2.87	
Total BTX	<0.300	0.300	09/13/2023	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	64.0	16.0	09/13/2023	ND	448	112	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	197	98.7	200	11.3	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	210	105	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 88.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 27 3' (H234928-27)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.02	101	2.00	2.03	
Toluene*	<0.050	0.050	09/13/2023	ND	2.04	102	2.00	2.65	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.97	98.5	2.00	2.76	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.92	98.7	6.00	2.87	
Total BTEX	<0.300	0.300	09/13/2023	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	64.0	16.0	09/13/2023	ND	448	112	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	197	98.7	200	11.3	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	210	105	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 92.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
BEAUX JENNINGS  
705 W WADLEY AVE.  
MIDLAND TX, 79705  
Fax To:

Received: 09/12/2023  
Reported: 09/14/2023  
Project Name: FEDERAL 12 - 1 H BATTERY  
Project Number: 03B1417098  
Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 28 3' (H234928-28)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.02	101	2.00	2.03	
Toluene*	<0.050	0.050	09/13/2023	ND	2.04	102	2.00	2.65	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.97	98.5	2.00	2.76	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.92	98.7	6.00	2.87	
Total BTX	<0.300	0.300	09/13/2023	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	32.0	16.0	09/13/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	197	98.7	200	11.3	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	210	105	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 83.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.5 % 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  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 29 3' (H234928-29)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.02	101	2.00	2.03	
Toluene*	<0.050	0.050	09/13/2023	ND	2.04	102	2.00	2.65	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.97	98.5	2.00	2.76	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.92	98.7	6.00	2.87	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	09/13/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	197	98.7	200	11.3	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	210	105	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 94.4 % 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  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 30 3' (H234928-30)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.02	101	2.00	2.03	
Toluene*	<0.050	0.050	09/13/2023	ND	2.04	102	2.00	2.65	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.97	98.5	2.00	2.76	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.92	98.7	6.00	2.87	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	09/13/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	197	98.7	200	11.3	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	210	105	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 89.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 31 3' (H234928-31)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.02	101	2.00	2.03	
Toluene*	<0.050	0.050	09/13/2023	ND	2.04	102	2.00	2.65	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.97	98.5	2.00	2.76	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.92	98.7	6.00	2.87	
Total BTX	<0.300	0.300	09/13/2023	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	320	16.0	09/13/2023	ND	448	112	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	197	98.7	200	11.3	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	210	105	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 89.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 32 3' (H234928-32)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.02	101	2.00	2.03	
Toluene*	<0.050	0.050	09/13/2023	ND	2.04	102	2.00	2.65	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.97	98.5	2.00	2.76	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.92	98.7	6.00	2.87	
Total BTEX	<0.300	0.300	09/13/2023	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	16.0	16.0	09/13/2023	ND	448	112	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	197	98.7	200	11.3	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	210	105	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 90.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
BEAUX JENNINGS  
705 W WADLEY AVE.  
MIDLAND TX, 79705  
Fax To:

Received: 09/12/2023  
Reported: 09/14/2023  
Project Name: FEDERAL 12 - 1 H BATTERY  
Project Number: 03B1417098  
Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 33 3' (H234928-33)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.02	101	2.00	2.03	
Toluene*	<0.050	0.050	09/13/2023	ND	2.04	102	2.00	2.65	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.97	98.5	2.00	2.76	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.92	98.7	6.00	2.87	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/13/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	197	98.7	200	11.3	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	210	105	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 90.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
BEAUX JENNINGS  
705 W WADLEY AVE.  
MIDLAND TX, 79705  
Fax To:

Received: 09/12/2023  
Reported: 09/14/2023  
Project Name: FEDERAL 12 - 1 H BATTERY  
Project Number: 03B1417098  
Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 34 3' (H234928-34)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.02	101	2.00	2.03	
Toluene*	<0.050	0.050	09/13/2023	ND	2.04	102	2.00	2.65	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.97	98.5	2.00	2.76	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.92	98.7	6.00	2.87	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	09/13/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	197	98.7	200	11.3	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	210	105	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 85.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.8 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 35 3' (H234928-35)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.02	101	2.00	2.03	
Toluene*	<0.050	0.050	09/13/2023	ND	2.04	102	2.00	2.65	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.97	98.5	2.00	2.76	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.92	98.7	6.00	2.87	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/13/2023	ND	448	112	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	197	98.7	200	11.3	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	210	105	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 91.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 36 3' (H234928-36)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.02	101	2.00	2.03	
Toluene*	<0.050	0.050	09/13/2023	ND	2.04	102	2.00	2.65	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.97	98.5	2.00	2.76	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.92	98.7	6.00	2.87	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/13/2023	ND	448	112	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	197	98.7	200	11.3	
DRO >C10-C28*	<10.0	10.0	09/14/2023	ND	210	105	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane 89.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 37 3' (H234928-37)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.02	101	2.00	2.03	
Toluene*	<0.050	0.050	09/13/2023	ND	2.04	102	2.00	2.65	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.97	98.5	2.00	2.76	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.92	98.7	6.00	2.87	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/13/2023	ND	448	112	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	197	98.7	200	11.3	
DRO >C10-C28*	<10.0	10.0	09/14/2023	ND	210	105	200	2.35	
EXT DRO >C28-C36	<10.0	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane 82.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.5 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 38 3' (H234928-38)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.02	101	2.00	2.03	
Toluene*	<0.050	0.050	09/13/2023	ND	2.04	102	2.00	2.65	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.97	98.5	2.00	2.76	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.92	98.7	6.00	2.87	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/13/2023	ND	448	112	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	192	96.1	200	6.49	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	191	95.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 88.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.8 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 39 3' (H234928-39)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.02	101	2.00	2.03	
Toluene*	<0.050	0.050	09/13/2023	ND	2.04	102	2.00	2.65	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.97	98.5	2.00	2.76	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.92	98.7	6.00	2.87	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/13/2023	ND	448	112	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	192	96.1	200	6.49	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	191	95.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 87.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.3 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 40 3' (H234928-40)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	2.02	101	2.00	2.03	
Toluene*	<0.050	0.050	09/13/2023	ND	2.04	102	2.00	2.65	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.97	98.5	2.00	2.76	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.92	98.7	6.00	2.87	
Total BTX	<0.300	0.300	09/13/2023	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	32.0	16.0	09/13/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	192	96.1	200	6.49	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	191	95.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 90.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 41 3' (H234928-41)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/13/2023	ND	1.79	89.5	2.00	4.44		
Toluene*	<0.050	0.050	09/13/2023	ND	1.85	92.5	2.00	3.55		
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.84	92.0	2.00	4.07		
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.58	93.0	6.00	3.83	QM-07	
Total BTEx	<0.300	0.300	09/13/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	09/13/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	192	96.1	200	6.49	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	191	95.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 96.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 42 3' (H234928-42)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	1.79	89.5	2.00	4.44	
Toluene*	<0.050	0.050	09/13/2023	ND	1.85	92.5	2.00	3.55	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.84	92.0	2.00	4.07	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.58	93.0	6.00	3.83	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	09/13/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	192	96.1	200	6.49	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	191	95.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 95.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 43 3' (H234928-43)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/13/2023	ND	1.79	89.5	2.00	4.44		
Toluene*	<0.050	0.050	09/13/2023	ND	1.85	92.5	2.00	3.55		
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.84	92.0	2.00	4.07		
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.58	93.0	6.00	3.83		
Total BTEX	<0.300	0.300	09/13/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	09/14/2023	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	192	96.1	200	6.49	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	191	95.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 44 3' (H234928-44)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	1.79	89.5	2.00	4.44	
Toluene*	<0.050	0.050	09/13/2023	ND	1.85	92.5	2.00	3.55	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.84	92.0	2.00	4.07	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.58	93.0	6.00	3.83	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	09/14/2023	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	192	96.1	200	6.49	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	191	95.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 97.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 45 3' (H234928-45)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	1.79	89.5	2.00	4.44	
Toluene*	<0.050	0.050	09/13/2023	ND	1.85	92.5	2.00	3.55	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.84	92.0	2.00	4.07	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.58	93.0	6.00	3.83	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	09/14/2023	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	192	96.1	200	6.49	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	191	95.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 98.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 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  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 46 3' (H234928-46)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	1.79	89.5	2.00	4.44	
Toluene*	<0.050	0.050	09/13/2023	ND	1.85	92.5	2.00	3.55	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.84	92.0	2.00	4.07	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.58	93.0	6.00	3.83	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	09/14/2023	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	192	96.1	200	6.49	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	191	95.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 94.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 47 3' (H234928-47)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	1.79	89.5	2.00	4.44	
Toluene*	<0.050	0.050	09/13/2023	ND	1.85	92.5	2.00	3.55	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.84	92.0	2.00	4.07	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.58	93.0	6.00	3.83	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/14/2023	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	192	96.1	200	6.49	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	191	95.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 91.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 48 6' (H234928-48)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	1.79	89.5	2.00	4.44	
Toluene*	<0.050	0.050	09/13/2023	ND	1.85	92.5	2.00	3.55	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.84	92.0	2.00	4.07	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.58	93.0	6.00	3.83	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2200	16.0	09/14/2023	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	192	96.1	200	6.49	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	191	95.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 77.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 1 0-3' (H234928-49)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	1.79	89.5	2.00	4.44	
Toluene*	<0.050	0.050	09/13/2023	ND	1.85	92.5	2.00	3.55	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.84	92.0	2.00	4.07	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.58	93.0	6.00	3.83	
Total BTEx	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	464	16.0	09/14/2023	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	192	96.1	200	6.49	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	191	95.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 91.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.4 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 2 0-3' (H234928-50)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	1.79	89.5	2.00	4.44	
Toluene*	<0.050	0.050	09/13/2023	ND	1.85	92.5	2.00	3.55	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.84	92.0	2.00	4.07	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.58	93.0	6.00	3.83	
Total BTEx	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	09/14/2023	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	192	96.1	200	6.49	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	191	95.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 90.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 3 0-3' (H234928-51)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	1.79	89.5	2.00	4.44	
Toluene*	<0.050	0.050	09/13/2023	ND	1.85	92.5	2.00	3.55	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.84	92.0	2.00	4.07	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.58	93.0	6.00	3.83	
Total BTEx	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/14/2023	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	192	96.1	200	6.49	
DRO >C10-C28*	<10.0	10.0	09/14/2023	ND	191	95.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane 93.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 4 0-3' (H234928-52)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	1.79	89.5	2.00	4.44	
Toluene*	<0.050	0.050	09/13/2023	ND	1.85	92.5	2.00	3.55	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.84	92.0	2.00	4.07	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.58	93.0	6.00	3.83	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/14/2023	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	192	96.1	200	6.49	
DRO >C10-C28*	<10.0	10.0	09/14/2023	ND	191	95.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane 92.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 5 0-3' (H234928-53)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	1.79	89.5	2.00	4.44	
Toluene*	<0.050	0.050	09/13/2023	ND	1.85	92.5	2.00	3.55	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.84	92.0	2.00	4.07	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.58	93.0	6.00	3.83	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656	16.0	09/14/2023	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	192	96.1	200	6.49	
DRO >C10-C28*	<10.0	10.0	09/14/2023	ND	191	95.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane 88.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.3 % 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  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 6 0-3' (H234928-54)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	1.79	89.5	2.00	4.44	
Toluene*	<0.050	0.050	09/13/2023	ND	1.85	92.5	2.00	3.55	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.84	92.0	2.00	4.07	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.58	93.0	6.00	3.83	
Total BTEx	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	09/14/2023	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	192	96.1	200	6.49	
DRO >C10-C28*	<10.0	10.0	09/14/2023	ND	191	95.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane 91.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 7 0-3' (H234928-55)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	1.79	89.5	2.00	4.44	
Toluene*	<0.050	0.050	09/13/2023	ND	1.85	92.5	2.00	3.55	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.84	92.0	2.00	4.07	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.58	93.0	6.00	3.83	
Total BTX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	09/14/2023	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	192	96.1	200	6.49	
DRO >C10-C28*	<10.0	10.0	09/14/2023	ND	191	95.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane 92.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 8 0-3' (H234928-56)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	1.79	89.5	2.00	4.44	
Toluene*	<0.050	0.050	09/13/2023	ND	1.85	92.5	2.00	3.55	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.84	92.0	2.00	4.07	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.58	93.0	6.00	3.83	
Total BTEx	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	09/14/2023	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	192	96.1	200	6.49	
DRO >C10-C28*	<10.0	10.0	09/14/2023	ND	191	95.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane 95.6 % 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  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 9 0-6' (H234928-57)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	1.79	89.5	2.00	4.44	
Toluene*	<0.050	0.050	09/13/2023	ND	1.85	92.5	2.00	3.55	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.84	92.0	2.00	4.07	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.58	93.0	6.00	3.83	
Total BTEx	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	09/14/2023	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2023	ND	192	96.1	200	6.49	
DRO >C10-C28*	<10.0	10.0	09/14/2023	ND	191	95.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	09/14/2023	ND					

Surrogate: 1-Chlorooctane 88.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 10 0-6' (H234928-58)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/13/2023	ND	1.79	89.5	2.00	4.44	
Toluene*	<0.050	0.050	09/13/2023	ND	1.85	92.5	2.00	3.55	
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.84	92.0	2.00	4.07	
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.58	93.0	6.00	3.83	
Total BTEX	<0.300	0.300	09/13/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	09/14/2023	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	197	98.6	200	3.33	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	203	101	200	0.419	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 84.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 11 0-3' (H234928-59)**

BTX 8021B			mg/kg							
			Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/13/2023	ND	1.79	89.5	2.00	4.44		
Toluene*	<0.050	0.050	09/13/2023	ND	1.85	92.5	2.00	3.55		
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.84	92.0	2.00	4.07		
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.58	93.0	6.00	3.83		
Total BTX	<0.300	0.300	09/13/2023	ND						

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

Chloride, SM4500CI-B			mg/kg							
			Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	09/14/2023	ND	432	108	400	3.64		

TPH 8015M			mg/kg							
			Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	197	98.6	200	3.33		
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	203	101	200	0.419		
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND						

Surrogate: 1-Chlorooctane 81.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/12/2023  
 Reported: 09/14/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417098  
 Project Location: EDDY COUNTY

Sampling Date: 09/12/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 12 0-3' (H234928-60)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/13/2023	ND	1.79	89.5	2.00	4.44		
Toluene*	<0.050	0.050	09/13/2023	ND	1.85	92.5	2.00	3.55		
Ethylbenzene*	<0.050	0.050	09/13/2023	ND	1.84	92.0	2.00	4.07		
Total Xylenes*	<0.150	0.150	09/13/2023	ND	5.58	93.0	6.00	3.83		
Total BTEx	<0.300	0.300	09/13/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	09/14/2023	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/13/2023	ND	197	98.6	200	3.33	
DRO >C10-C28*	<10.0	10.0	09/13/2023	ND	203	101	200	0.419	
EXT DRO >C28-C36	<10.0	10.0	09/13/2023	ND					

Surrogate: 1-Chlorooctane 86.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.3 % 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

Company Name: Ensolum, LLC		P.O. #:		BILL TO		ANALYSIS REQUEST	
Project Manager: Beau Jennings		Company:					
Address: 601 N. Marientfield St. STE 400		Attn:					
City: Midland		State: TX		Zip: 79701			
Phone #: 210-219-8858		Fax #:		Address:			
Project #: 076147045		Project Owner:		City:			
Project Name: Federal Health Worker		State:		Zip:			
Project Location: Eddy County		Phone #:					
Sample Name: TN610014AD		Fax #:					
FOR LAB USE ONLY		PRESERV.		SAMPLING			
Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX	DATE	TIME
					GROUNDWATER		
					WASTEWATER		
					SOIL		
					OIL		
					SLUDGE		
					OTHER :		
					ACID/BASE:		
					ICE / COOL		
					OTHER :		
H234928	F5-1	3'	C	1	X	9/12/23	0910
	F5-2	3'	C	1	X	9/12/23	0912
	F5-3	3'	C	1	X	9/12/23	0914
	F5-4	3'	C	1	X	9/12/23	0916
	F5-5	3'	C	1	X	9/12/23	0918
	F5-6	3'	C	1	X	9/12/23	0920
	F5-7	3'	C	1	X	9/12/23	0922
	F5-8	3'	C	1	X	9/12/23	0924
	F5-9	3'	C	1	X	9/12/23	0926
	F5-10	3'	C	1	X	9/12/23	0928
PLEASE NOTE: Liability and Damages. Cardinal's liability and clients 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 reasons or otherwise.							
Relinquished By: [Signature]		Date: 9/12/23		Received By: [Signature]		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Time: 1916		Date: 9/12/23		Received By: [Signature]		All Results are emailed. Please provide Email address: Blennings@ensolum.com	
Relinquished By: [Signature]		Date: 9/12/23		Received By: [Signature]		REMARKS: 48hrs Temp Blank: -0.0°C	
Delivered By: (Circle One)		Observed Temp. °C		Sample Condition		CHECKED BY: [Signature]	
Sampler - UPS - Bus - Other:		Corrected Temp. °C		Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Thermometer ID #113	
				Yes <input type="checkbox"/> No <input type="checkbox"/>		Standard <input type="checkbox"/> Rush <input type="checkbox"/>	
				Yes <input type="checkbox"/> No <input type="checkbox"/>		Bacteria (only) Sample Condition	
				Yes <input type="checkbox"/> No <input type="checkbox"/>		Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>	
				Yes <input type="checkbox"/> No <input type="checkbox"/>		Observed Temp. °C	
				Yes <input type="checkbox"/> No <input type="checkbox"/>		Corrected Temp. °C	





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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC		P.O. #:		BILL TO		ANALYSIS REQUEST																		
Project Manager: <u>Bruce Jennings</u>		Company:																						
Address: 601 N. Marland St. STE 400		Address:																						
City: Midland State: TX Zip: 79701		Attn:																						
Phone #: 210-219-8858 Fax #:		Address:																						
Project #: 03B1417058 Project Owner:		City:																						
Project Name: <u>Federal 12-1H Battery</u>		State: Zip:																						
Project Location: <u>Eddy County</u>		Phone #:																						
Sampler Name: <u>TNG PWD LSAD</u>		Fax #:																						
FOR LAB USE ONLY		MATRIX		PRESERV		SAMPLING																		
Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	BTex 8021b		TPH 8015m		Chlorides 4500				
H334988																								
11	F3-11	3	C	1	X									9/14/23	09430	X	X	X						
12	F3-12	3	C	1	X									9/14/23	09432	X	X	X						
13	F3-13	3	C	1	X									9/14/23	09434	X	X	X						
14	F3-14	3	C	1	X									9/14/23	09436	X	X	X						
15	F3-15	3	C	1	X									9/14/23	09438	X	X	X						
16	F3-16	3	C	1	X									9/14/23	09440	X	X	X						
17	F3-17	3	C	1	X									9/14/23	09442	X	X	X						
18	F3-18	3	C	1	X									9/14/23	09444	X	X	X						
19	F3-19	3	C	1	X									9/14/23	09446	X	X	X						
20	F3-20	3	C	1	X									9/14/23	09448	X	X	X						
PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising from this contract or tort, shall be limited to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.		Relinquished By: <u>[Signature]</u>		Date: 9/12/23	Received By: <u>[Signature]</u>		Date: 9/12/23	Time: 1416		Received By: <u>[Signature]</u>		Date: 9/12/23	Time: 1416		Time: 1416		Time: 1416		Time: 1416		Time: 1416		Time: 1416	
Relinquished By: <u>[Signature]</u>		Date: 9/12/23		Time: 1416		Received By: <u>[Signature]</u>		Date: 9/12/23		Time: 1416		Time: 1416		Time: 1416		Time: 1416		Time: 1416		Time: 1416		Time: 1416		
Delivered By: (Circle One) <u>UPS</u>		Observed Temp: °C 1.02		Corrected Temp: °C		Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		CHECKED BY: <u>[Signature]</u>		Turnaround Time: <u>48 hrs</u>		Thermometer ID: #113		Correction Factor: -0.5°C		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Bacteria (only) <input type="checkbox"/> Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Sample Condition Observed Temp: °C		Corrected Temp: °C		
Sampler - UPS - Bus - Other:		Observed Temp: °C		Corrected Temp: °C		Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		CHECKED BY: <u>[Signature]</u>		Turnaround Time: <u>48 hrs</u>		Thermometer ID: #113		Correction Factor: -0.5°C		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Bacteria (only) <input type="checkbox"/> Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Sample Condition Observed Temp: °C		Corrected Temp: °C		
Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinalabsnm.com																								





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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> Ensolum, LLC <b>Project Manager:</b> Beaux Jennings <b>Address:</b> 601 N. Marientfeld St. STE 400 <b>City:</b> Midland <b>State:</b> TX <b>Zip:</b> 79701 <b>Phone #:</b> 210-219-8858 <b>Fax #:</b> <b>Project #:</b> 03B1417A58 <b>Project Owner:</b> <b>Project Name:</b> Federal 12-14 <b>Project Location:</b> Eddy Co. NM <b>Sampler Name:</b> TWE/MCD/SAF				<b>BILL TO</b> <b>P.O. #:</b> <b>Company:</b> Oxy USA, Inc. <b>Attn:</b> Wade Dittrich <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> 575-390-2828 <b>Fax #:</b>				<b>ANALYSIS REQUEST</b>							
<b>Lab I.D.</b> H234928		<b>Sample I.D.</b>		<b>Sample Depth (feet)</b>		<b>(G)RAB OR (C)OMP.</b>		<b># CONTAINERS</b>		<b>MATRIX</b>		<b>PRESERV.</b>		<b>SAMPLING</b>	
21		FS - 21		3		C 1		X		GROUNDWATER		X		DATE TIME	
22		FS - 22		3		C 1		X		WASTEWATER		X		9-12-23 0950	
23		FS - 23		3		C 1		X		SOIL		X		9-12-23 0954	
24		FS - 24		3		C 1		X		OIL		X		9-12-23 0956	
25		FS - 25		3		C 1		X		SLUDGE		X		9-12-23 0958	
26		FS - 26		3		C 1		X		OTHER :		X		9-12-23 0959	
27		FS - 27		3		C 1		X		ACID/BASE:		X		9-12-23 0959	
28		FS - 28		3		C 1		X		ICE / COOL		X		9-12-23 0959	
29		FS - 29		3		C 1		X		OTHER :		X		9-12-23 0959	
30		FS - 30		3		C 1		X		DATE TIME		X		9-12-23 0959	
										BTEX 80216		X			
										TPH 8015		X			
										Chlorides		X			

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<b>Relinquished By:</b> Date: 9/12/23 Time: 1416 Received By: [Signature] Date: Time: Remarks: 48hrs Temp Blank: -0.10		<b>Verbal Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #: <b>Remarks:</b> All Results are emailed. Please provide Email address: Blennings@ensolum.com	
<b>Delivered By: (Circle One)</b> Sampler - UPS - Bus - Other: Observed Temp: 10.0°C Corrected Temp: 10.0°C Sample Condition: Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Checked By: [Signature] (Initials) Turnaround Time: Standard <input type="checkbox"/> Rush <input checked="" type="checkbox"/> Bacteria (only) <input type="checkbox"/> Sample Condition <input type="checkbox"/> Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No Thermometer ID: #140 <input type="checkbox"/> Calibration Factor: 0.5°C <input type="checkbox"/> Observed Temp. °C <input type="checkbox"/> Corrected Temp. °C		Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com	





CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240  
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Company Name: Ensolum, LLC		P.O. #:		ANALYSIS REQUEST					
Project Manager: Beau Jennings		Company:							
Address: 601 N. Marland St. STE 400		Attn:							
City: Midland		State: TX		Zip: 79701					
Phone #: 210-219-8858		Fax #:							
Project #: 038147868		Project Owner:							
Project Name: Eddy County NM		City:							
Project Location: Eddy County NM		State:							
Sample Name: TNG/NM/540		Phone #:							
FOR LAB USE ONLY		Fax #:							
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			
H234928	31	31			9/12/23	0900		BTEX 80216	
	32	32			9/12/23	1012		TPH 8015 m	
	33	33			9/12/23	1014		Chlorides 4500	
	34	34			9/12/23	1016			
	35	35			9/12/23	1019			
	36	36			9/12/23	1020			
	37	37			9/12/23	1022			
	38	38			9/12/23	1024			
	39	39			9/12/23	1026			
	40	40			9/12/23	1029			
PLEASE NOTE: Liability and Damages, Cardinal's liability and clients 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 provisions or otherwise.									
Relinquished By: [Signature]		Date: 9/12/23		Received By: [Signature]		Date: 9/12/23			
Relinquished By: [Signature]		Date: 9/12/23		Received By: [Signature]		Date: 9/12/23			
Delivered By: (Circle One)		Observed Temp.: °C		Sample Condition		CHECKED BY: (Initials)			
Sampler - UPS - Bus - Other:		Corrected Temp.: °C		Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Bacteria (only) Sample Condition <input checked="" type="checkbox"/> Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No			
Turnaround Time:		Standard		Rush		Bacteria (only) Sample Condition			
Thermometer ID #412		#140		#480		Observed Temp.: °C			
Correction Factor: 0.5°C		#140		#480		Corrected Temp.: °C			
REMARKS: TEMP @ 11 AM: -0.2°C									
Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:									
All Results are emailed. Please provide Email address: E.jennings@ensolum.com									





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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC		P.O. #:		ANALYSIS REQUEST	
Project Manager: PEUX JENNIFER		Company:			
Address: 601 N. Mainfield St. STE 400		Attn:			
City: Midland		Address:			
Phone #: 210-219-8888		City:			
Fax #: 210-219-8888		State:			
Project #: 038144505		Zip:			
Project Name: FERRIS 12-11 60405		Phone #:			
Project Location: Edley County NM		Fax #:			
Sampler Name: TUG/MLK/544		PRESERV		SAMPLING	
FOR LAB USE ONLY					
Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	
H234928	411	3			
	43	3			
	43	3			
	44	3			
	45	3			
	46	3			
	47	3			
	48	3			
	49	3			
	50	3			
			MATRIX		
			GROUNDWATER		
			WASTEWATER		
			SOIL		
			OIL		
			SLUDGE		
			OTHER :		
			ACID/BASE:		
			ICE / COOL		
			OTHER :		
			DATE	TIME	
			9/22/23	1030	
			9/22/23	1032	
			9/22/23	1034	
			9/22/23	1036	
			9/22/23	1038	
			9/22/23	1040	
			9/22/23	1042	
			9/22/23	1044	
			9/22/23	1046	
			9/22/23	1048	
			9/22/23	1050	
			9/22/23	1052	
			9/22/23	1054	
			9/22/23	1056	
			9/22/23	1058	
			9/22/23	1100	
			9/22/23	1102	
			9/22/23	1104	
			9/22/23	1106	
			9/22/23	1108	
			9/22/23	1110	
			9/22/23	1112	
			9/22/23	1114	
			9/22/23	1116	
			9/22/23	1118	
			9/22/23	1120	
			9/22/23	1122	
			9/22/23	1124	
			9/22/23	1126	
			9/22/23	1128	
			9/22/23	1130	
			9/22/23	1132	
			9/22/23	1134	
			9/22/23	1136	
			9/22/23	1138	
			9/22/23	1140	
			9/22/23	1142	
			9/22/23	1144	
			9/22/23	1146	
			9/22/23	1148	
			9/22/23	1150	
			9/22/23	1152	
			9/22/23	1154	
			9/22/23	1156	
			9/22/23	1158	
			9/22/23	1200	
			9/22/23	1202	
			9/22/23	1204	
			9/22/23	1206	
			9/22/23	1208	
			9/22/23	1210	
			9/22/23	1212	
			9/22/23	1214	
			9/22/23	1216	
			9/22/23	1218	
			9/22/23	1220	
			9/22/23	1222	
			9/22/23	1224	
			9/22/23	1226	
			9/22/23	1228	
			9/22/23	1230	
			9/22/23	1232	
			9/22/23	123	





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### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> Ensolum, LLC <b>Project Manager:</b> <u>Roux Jennings</u> <b>Address:</b> 601 N. Mainfield St. STE 400 <b>City:</b> Midland <b>State:</b> TX <b>Zip:</b> 79701 <b>Phone #:</b> 210-214-8858 <b>Fax #:</b> <b>Project #:</b> 038147058 <b>Project Owner:</b> <b>Project Name:</b> Federal 12-14 Battery <b>Project Location:</b> Eddy County <b>Sample Name:</b> TNG JWD15AD				<b>P.O. #:</b> <b>Company:</b> <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>			
<b>FOR LAB USE ONLY</b>				<b>BILL TO</b>			
<b>Lab I.D.</b>		<b>Sample I.D.</b>		<b>Sample Depth (feet)</b>		<b>(G)RAB OR (C)OMP.</b>	
<b>Sample Condition</b>		<b>Matrix</b>		<b>Preserv.</b>		<b>Sampling</b>	
<input type="checkbox"/> Cool <input type="checkbox"/> Intact		<input type="checkbox"/> SOIL <input type="checkbox"/> OIL <input type="checkbox"/> SLUDGE		<input type="checkbox"/> ACID/BASE: <input type="checkbox"/> ICE / COOL		<input type="checkbox"/> OTHER:	
<b>DATE</b>		<b>TIME</b>		<b>DATE</b>		<b>TIME</b>	
<b>Relinquished By:</b>		<b>Received By:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Time:</b>		<b>Time:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Date:</b>		<b>Date:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Relinquished By:</b>		<b>Received By:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Time:</b>		<b>Time:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Date:</b>		<b>Date:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Relinquished By:</b>		<b>Received By:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Time:</b>		<b>Time:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Date:</b>		<b>Date:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Relinquished By:</b>		<b>Received By:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Time:</b>		<b>Time:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Date:</b>		<b>Date:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Relinquished By:</b>		<b>Received By:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Time:</b>		<b>Time:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Date:</b>		<b>Date:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Relinquished By:</b>		<b>Received By:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Time:</b>		<b>Time:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Date:</b>		<b>Date:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Relinquished By:</b>		<b>Received By:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Time:</b>		<b>Time:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Date:</b>		<b>Date:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Relinquished By:</b>		<b>Received By:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Time:</b>		<b>Time:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Date:</b>		<b>Date:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Relinquished By:</b>		<b>Received By:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Time:</b>		<b>Time:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Date:</b>		<b>Date:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Relinquished By:</b>		<b>Received By:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Time:</b>		<b>Time:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Date:</b>		<b>Date:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Relinquished By:</b>		<b>Received By:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Time:</b>		<b>Time:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Date:</b>		<b>Date:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Relinquished By:</b>		<b>Received By:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Time:</b>		<b>Time:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Date:</b>		<b>Date:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Relinquished By:</b>		<b>Received By:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Time:</b>		<b>Time:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Date:</b>		<b>Date:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Relinquished By:</b>		<b>Received By:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Time:</b>		<b>Time:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Date:</b>		<b>Date:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Relinquished By:</b>		<b>Received By:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Time:</b>		<b>Time:</b>		<b>DATE</b>		<b>TIME</b>	
<b>Date:</b> </							



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

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September 25, 2023

BEAUX JENNINGS  
ENSOLUM, LLC  
705 W WADLEY AVE.  
MIDLAND, TX 79705

RE: FEDERAL 12 - 1 H BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 09/19/23 14:21.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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 fluid and cursive, with the first name "Celey" and last name "Keene" clearly distinguishable.

Celey D. Keene  
Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417058  
 Project Location: OXY - EDDY COUNTY

Sampling Date: 09/19/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: SW - 5 0'-3' (H235081-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	09/25/2023	ND	416	104	400	0.00	

**Sample ID: DS - 1 0'-0.25' (H235081-02)**

BTEX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2023	ND	2.17	109	2.00	3.50	
Toluene*	<0.050	0.050	09/20/2023	ND	2.15	108	2.00	2.55	
Ethylbenzene*	<0.050	0.050	09/20/2023	ND	2.30	115	2.00	3.54	
Total Xylenes*	<0.150	0.150	09/20/2023	ND	6.85	114	6.00	2.15	
Total BTEX	<0.300	0.300	09/20/2023	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	48.0	16.0	09/25/2023	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	09/20/2023	ND	201	101	200	1.21	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	204	102	200	0.717	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 92.4 % 48.2-134

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417058  
 Project Location: OXY - EDDY COUNTY

Sampling Date: 09/19/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: DS - 1 0'-0.25' (H235081-02)**

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Surrogate: 1-Chlorooctadecane	106 %	49.1-148								

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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417058  
 Project Location: OXY - EDDY COUNTY

Sampling Date: 09/19/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: DS - 2 0'-0.25' (H235081-03)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/21/2023	ND	2.03	102	2.00	4.02		
Toluene*	<0.050	0.050	09/21/2023	ND	2.10	105	2.00	3.99		
Ethylbenzene*	<0.050	0.050	09/21/2023	ND	2.22	111	2.00	6.29		
Total Xylenes*	<0.150	0.150	09/21/2023	ND	5.76	96.0	6.00	6.46	QM-07	
Total BTEX	<0.300	0.300	09/21/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/25/2023	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	09/20/2023	ND	201	101	200	1.21	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	204	102	200	0.717	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 87.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417058  
 Project Location: OXY - EDDY COUNTY

Sampling Date: 09/19/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: DS - 3 0'-0.25' (H235081-04)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2023	ND	2.03	102	2.00	4.02	
Toluene*	<0.050	0.050	09/21/2023	ND	2.10	105	2.00	3.99	
Ethylbenzene*	<0.050	0.050	09/21/2023	ND	2.22	111	2.00	6.29	
Total Xylenes*	<0.150	0.150	09/21/2023	ND	5.76	96.0	6.00	6.46	
Total BTEX	<0.300	0.300	09/21/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/25/2023	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	09/20/2023	ND	201	101	200	1.21	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	204	102	200	0.717	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 91.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417058  
 Project Location: OXY - EDDY COUNTY

Sampling Date: 09/19/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: DS - 4 0'-0.25' (H235081-05)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2023	ND	2.03	102	2.00	4.02	
Toluene*	<0.050	0.050	09/21/2023	ND	2.10	105	2.00	3.99	
Ethylbenzene*	<0.050	0.050	09/21/2023	ND	2.22	111	2.00	6.29	
Total Xylenes*	<0.150	0.150	09/21/2023	ND	5.76	96.0	6.00	6.46	
Total BTEX	<0.300	0.300	09/21/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/25/2023	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	09/20/2023	ND	201	101	200	1.21	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	204	102	200	0.717	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 86.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417058  
 Project Location: OXY - EDDY COUNTY

Sampling Date: 09/19/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: DS - 5 0'-0.25' (H235081-06)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2023	ND	2.03	102	2.00	4.02	
Toluene*	<0.050	0.050	09/21/2023	ND	2.10	105	2.00	3.99	
Ethylbenzene*	<0.050	0.050	09/21/2023	ND	2.22	111	2.00	6.29	
Total Xylenes*	<0.150	0.150	09/21/2023	ND	5.76	96.0	6.00	6.46	
Total BTEX	<0.300	0.300	09/21/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/25/2023	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	09/20/2023	ND	201	101	200	1.21	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	204	102	200	0.717	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 88.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417058  
 Project Location: OXY - EDDY COUNTY

Sampling Date: 09/19/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: DS - 6 0'-0.25' (H235081-07)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2023	ND	2.03	102	2.00	4.02	
Toluene*	<0.050	0.050	09/21/2023	ND	2.10	105	2.00	3.99	
Ethylbenzene*	<0.050	0.050	09/21/2023	ND	2.22	111	2.00	6.29	
Total Xylenes*	<0.150	0.150	09/21/2023	ND	5.76	96.0	6.00	6.46	
Total BTEX	<0.300	0.300	09/21/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/25/2023	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	09/20/2023	ND	197	98.4	200	8.23	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	211	106	200	11.9	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 117 % 48.2-134

Surrogate: 1-Chlorooctadecane 137 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417058  
 Project Location: OXY - EDDY COUNTY

Sampling Date: 09/19/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: DS - 7 0'-0.25' (H235081-08)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2023	ND	2.03	102	2.00	4.02	
Toluene*	<0.050	0.050	09/21/2023	ND	2.10	105	2.00	3.99	
Ethylbenzene*	<0.050	0.050	09/21/2023	ND	2.22	111	2.00	6.29	
Total Xylenes*	<0.150	0.150	09/21/2023	ND	5.76	96.0	6.00	6.46	
Total BTEX	<0.300	0.300	09/21/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/25/2023	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	09/20/2023	ND	197	98.4	200	8.23	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	211	106	200	11.9	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 96.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417058  
 Project Location: OXY - EDDY COUNTY

Sampling Date: 09/19/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: DS - 8 0'-0.25' (H235081-09)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2023	ND	2.03	102	2.00	4.02	
Toluene*	<0.050	0.050	09/21/2023	ND	2.10	105	2.00	3.99	
Ethylbenzene*	<0.050	0.050	09/21/2023	ND	2.22	111	2.00	6.29	
Total Xylenes*	<0.150	0.150	09/21/2023	ND	5.76	96.0	6.00	6.46	
Total BTEX	<0.300	0.300	09/21/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	09/20/2023	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	197	98.4	200	8.23	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	211	106	200	11.9	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 93.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 BEAUX JENNINGS  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: FEDERAL 12 - 1 H BATTERY  
 Project Number: 03B1417058  
 Project Location: OXY - EDDY COUNTY

Sampling Date: 09/19/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: DS - 9 0'-0.25' (H235081-10)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/21/2023	ND	2.03	102	2.00	4.02	
Toluene*	<0.050	0.050	09/21/2023	ND	2.10	105	2.00	3.99	
Ethylbenzene*	<0.050	0.050	09/21/2023	ND	2.22	111	2.00	6.29	
Total Xylenes*	<0.150	0.150	09/21/2023	ND	5.76	96.0	6.00	6.46	
Total BTEX	<0.300	0.300	09/21/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/20/2023	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	197	98.4	200	8.23	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	211	106	200	11.9	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 93.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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---

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---

### Notes and Definitions

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

---

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

---

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Beaux Jennings										<b>BILL TO</b>										<b>ANALYSIS REQUEST</b>									
Project Manager: Beaux Jennings										P.O. #:																			
Address: 601 N Marientfeld Street, Suite 400										Company: Oxy USA Inc.																			
City: Midland										State: TX Zip: 79701										Attn: Wade Dittrich									
Phone #: 210-219-8858										Fax #:										Address:									
Project #: 6381417058										Project Owner:										City:									
Project Name: Federal 12-14 Battery										State:										Zip:									
Project Location: Eddy Co, NM										Phone #: 575-380-2828																			
Sampler Name: Beaux Jennings / Keene Services										Fax #:																			
FOR LAB USE ONLY																													
Lab I.D.										Sample I.D.										Depth (feet)									
H235081										S20-5										0'-3'									
										D5-1										0'-0.25'									
										D5-2																			
										D5-3																			
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**District I**

1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**

811 S. First St., Artesia, NM 88210  
 Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**

1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

Action 296177

**QUESTIONS**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:
	16696
	Action Number:
	296177
Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

**QUESTIONS**

Prerequisites	
Incident ID (n#)	nAB1700440047
Incident Name	NAB1700440047 FEDERAL 12 #001H @ 30-015-40840
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received
Incident Well	[30-015-40840] FEDERAL 12 #001H

**Location of Release Source**

Please answer all the questions in this group.

Site Name	FEDERAL 12 #001H
Date Release Discovered	12/16/2016
Surface Owner	Federal

**Incident Details**

Please answer all the questions in this group.

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

**Nature and Volume of Release**

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

Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Corrosion   Flow Line - Production   Produced Water   Released: 20 BBL   Recovered: 10 BBL   Lost: 10 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

QUESTIONS, Page 2

Action 296177

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:
	16696
	Action Number:
	296177
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	No
Reasons why this would be considered a submission for a notification of a major release	Unavailable.
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: 12/19/2023
--	---



**District I**

1625 N. French Dr., Hobbs, NM 88240  
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**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS, Page 3

Action 296177

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:
	16696
	Action Number:
	296177
Action Type:	
[C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

**QUESTIONS****Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	Attached Document
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	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	Between 1000 (ft.) and ½ (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1000 (ft.) and ½ (mi.)
Any other fresh water well or spring	Between 1000 (ft.) and ½ (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1000 (ft.) and ½ (mi.)
A subsurface mine	Between 1 and 5 (mi.)
An (non-karst) unstable area	Between 1000 (ft.) and ½ (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

**Remediation Plan**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
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.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

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

Chloride	(EPA 300.0 or SM4500 Cl B)	2200
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	0
GRO+DRO	(EPA SW-846 Method 8015M)	0
BTEX	(EPA SW-846 Method 8021B or 8260B)	0
Benzene	(EPA SW-846 Method 8021B or 8260B)	0

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	09/12/2023
On what date will (or did) the final sampling or liner inspection occur	09/19/2023
On what date will (or was) the remediation complete(d)	09/19/2023
What is the estimated surface area (in square feet) that will be reclaimed	13125
What is the estimated volume (in cubic yards) that will be reclaimed	2430
What is the estimated surface area (in square feet) that will be remediated	13125
What is the estimated volume (in cubic yards) that will be remediated	2430

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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Action 296177

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:	16696
	Action Number:	296177
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS****Remediation Plan (continued)**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

**This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:**

(Select all answers below that apply.)

(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	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	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

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

I hereby agree and sign off to the above statement	Name: Wade Dittrich Title: Environmental Coordinator Email: wade_dittrich@oxy.com Date: 12/19/2023
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The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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Action 296177

**QUESTIONS (continued)**

Operator:  OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:	16696
	Action Number:	296177
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Deferral Requests Only</b>	
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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Action 296177

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:	16696
	Action Number:	296177
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Sampling Event Information</b>	
Last sampling notification (C-141N) recorded	296173
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	09/19/2023
What was the (estimated) number of samples that were to be gathered	69
What was the sampling surface area in square feet	13125

**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	13125
What was the total volume (cubic yards) remediated	2430
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	13125
What was the total volume (in cubic yards) reclaimed	2430
Summarize any additional remediation activities not included by answers (above)	None

*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: 12/19/2023
--	---

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Action 296177

**QUESTIONS (continued)**

Operator:  OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:  16696
	Action Number:  296177
	Action Type:  [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Reclamation Report</b>	
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 296177

**CONDITIONS**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:
	16696
	Action Number:
	296177
Action Type:	
[C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

**CONDITIONS**

Created By	Condition	Condition Date
amaxwell	Remediation closure approved.	12/26/2023
amaxwell	Per 19.15.29.12.C.(3) the responsible party must remediate the impacted surface area of a release not occurring on a lined, bermed or otherwise contained exploration, development, production, or storage site to meet the standards of Table I of 19.15.29.12 NMAC or other applicable remediation standards AND restore and reclaim the area pursuant to 19.15.29.13 NMAC.	12/26/2023
amaxwell	Submit reclamation report via the OCD permitting portal by 4/30/2024.	12/26/2023