ENSOLUM

CLOSURE REPORT

Property:

Lost Tank 4 Fed. #0009

Eddy County, New Mexico
32.42112 N, 103.78030 W
NMOCD Incident ID: nAPP2219337009
API No.: 30-015-37953

December 29, 2022
Ensolum Project No. 03B1417052

Prepared for:

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

Prepared by:

Beaux Jennings
Senior Project Manager

Heather Holthaus
Senior Project Manager

ENSOLUM

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ENSOLUM

CLOSURE REPORT

Lost Tank 4 Fed. #0009

Eddy County, New Mexico
32.42112 N, 103.78030 W
NMOCD Incident ID: nAPP2219337009
API No.: 30-015-37953

Ensolum Project No. 03B1417052

1.0 INTRODUCTION

1.1 Executive Summary

- On July 4, 2022, a release of crude oil and produced water was reported from a packing failure at the wellhead stuffing box at the Lost Tank 4 Fed. #0009, hereinafter referred to as the "Site". Approximately three barrels (bbls) of crude oil and 12 bbls of produced water were release onto the ground surface and impacted an area approximately 100 feet long by 50 feet wide. The stuffing box was repaired, and initial response actions were conducted at the Site. The Remediation Work Plan, prepared by Ensolum, LLC (Ensolum) on behalf of Oxy USA Inc. (Oxy), stated that a soil boring to confirm depth to water in the area would be installed. Subsequent to the results of the depth to water soil boring, the release area would be excavated to meet applicable Closure Criteria.

- Due to the unknown depth to groundwater in the 0.5-mile vicinity, a depth to water soil boring (SB-1) was installed on November 29, 2022 by Ensolum personnel. The soil boring was installed on Oxy property adjacent to the Site. The soil boring was installed to 110 feet bgs, and groundwater was not encountered 72-hours after the soil boring was installed. The applicable Closure Criteria were utilized based on the lack of groundwater observed within the first 110 feet bgs at the Site.

- On October 11, 2022, Ensolum arrived on-Site and collected a total of 30 composite soil samples from 30 locations on the excavation floor (FS-1 through FS-30), and four composite soil samples (NORTH-2, WEST-2, EAST-2, AND SOUTH-2) from four locations outside of the spill extent for vertical delineation. The composite floor samples were collected at a depth of one foot below ground surface (bgs).

- 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.

- The final excavation area measured approximately impacted area measured approximately 50 feet wide and 100 feet long at the maximum extents. The maximum depth of the impacted area measured approximately one foot bgs.

- Based on the laboratory analytical results, the composite 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.

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

1.2 Site Description & Background

Operator:	Oxy USA Inc. (Oxy)
Site Name:	Lost Tank 4 Fed. #0009
Location:	Eddy County, New Mexico 32.42112 N, 103.78030 W
Property:	Bureau of Land Management (BLM)
Regulatory:	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 ENMRD 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.
- 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.

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 July 4, 2022, a release of crude oil and produced water was reported from a packing failure at the wellhead stuffing box at the Lost Tank 4 Fed. #0009. Approximately three bbls of crude oil and 12 bbls of produced water were release onto the ground surface and impacted an area approximately 100 feet long by 50 feet wide. The stuffing box was repaired, and initial response actions were conducted at the Site. The Remediation Work Plan, prepared by Ensolum on behalf of Oxy, stated that a soil boring to confirm depth to water in the area would be installed. Subsequent to the results of the depth to water soil boring, the release area would be excavated to meet applicable Closure Criteria.

Due to the unknown depth to groundwater in the 0.5-mile vicinity, a depth to water soil boring (SB-1) was installed on November 29, 2022 by Ensolum personnel. The soil boring was installed on Oxy property adjacent to the Site. The soil boring was installed to 110 feet bgs, and groundwater was not encountered 72-hours after the soil boring was installed. The applicable Closure Criteria were utilized based on the lack of groundwater observed within the first 110 feet bgs at the Site.

On October 11, 2022, Ensolum arrived on-Site and collected a total of 30 composite soil samples from 30 locations on the excavation floor (FS-1 through FS-30), and four composite soil samples (NORTH-2, WEST-2, EAST-2, AND SOUTH-2) from four locations outside of the spill extent for vertical delineation. The composite floor samples were collected at a depth of one foot bgs.

Based on the laboratory analytical data, no additional excavation was required. Subsequent to the results of the composite soil sampling, the excavated soils were removed and taken off-Site for proper disposal.

The final excavation area measured approximately impacted area measured approximately 50 feet wide and 100 feet long at the maximum extents. The maximum depth of the impacted area measured approximately one foot bgs.

The lithology encountered during the completion of sampling activities consisted primarily of a well graded silty brown sand and caliche.

Figure 3 identifies approximate 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 30 composite soil samples from 30 locations on the excavation floor (FS-1 through FS-30), and four composite soil samples (NORTH-2, WEST-2, EAST-2, AND SOUTH-2) from four locations outside of the spill extent for vertical delineation. The composite floor samples were collected at a depth of one foot bgs.

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 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/MRO, and chloride concentrations associated with the composite soil samples collected from the excavation floor (FS-1 through FS-30) and the locations outside of the spill extent (NORTH-2, WEST-2, EAST-2, AND SOUTH-2) to the applicable NMOCD Closure Criteria.

- Laboratory analytical results indicate benzene concentrations for the composite soil samples are below the laboratory sample detection limits (SDLs), which are below the applicable NMOCD Closure Criteria of 10 mg/kg.
- Laboratory analytical results indicate that total BTEX concentrations for the composite soil samples 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 soil samples are below the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 1,000 mg/kg from >100 feet.
- Laboratory analytical results indicate combined TPH GRO/DRO/MRO concentrations for the composite soil samples are below the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 2,500 mg/kg from >100 feet.

- Laboratory analytical results indicate chloride concentrations for the composite soil samples are below the applicable NMOCD Closure Criteria of 20,000 mg/kg from >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. The spill area is a caliche pad and does not require reclamation or revegetation at this time.

8.0 FINDINGS AND RECOMMENDATION

- On July 4, 2022, a release of crude oil and produced water was reported from a packing failure at the wellhead stuffing box at the Lost Tank 4 Fed. #0009. Approximately three bbls of crude oil and 12 bbls of produced water were release onto the ground surface and impacted an area approximately 100 feet long by 50 feet wide. The stuffing box was repaired, and initial response actions were conducted at the Site. The Remediation Work Plan, prepared by Ensolum on behalf of Oxy, stated that a soil boring to confirm depth to water in the area would be installed. Subsequent to the results of the depth to water soil boring, the release area would be excavated to meet applicable Closure Criteria.

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- On October 11, 2022, Ensolum arrived on-Site and collected a total of 30 composite soil samples from 30 locations on the excavation floor (FS-1 through FS-30), and four composite soil samples (NORTH-2, WEST-2, EAST-2, AND SOUTH-2) from four locations outside of the spill extent for vertical delineation. The composite floor samples were collected at a depth of one-foot bgs.

- 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.

- The final excavation area measured approximately impacted area measured approximately 50 feet wide and 100 feet long at the maximum extents. The maximum depth of the impacted area measured approximately one foot bgs.

- Based on the laboratory analytical results, the final composite soil samples collected from the excavation did not exhibit benzene, BTEX, 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. The spill area is a caliche pad and does not require reclamation or revegetation at this time.

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.

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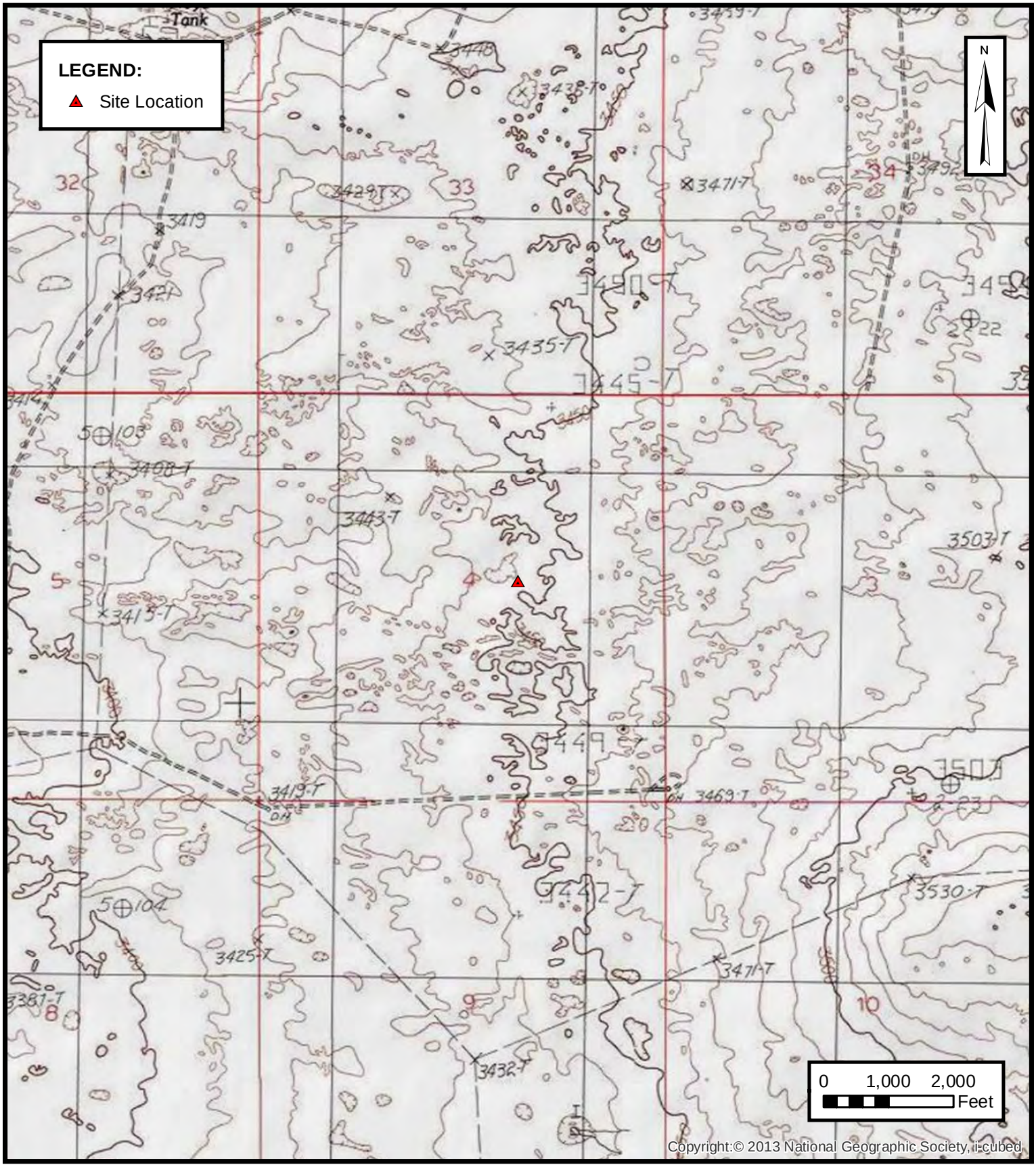
APPENDIX A

Figures



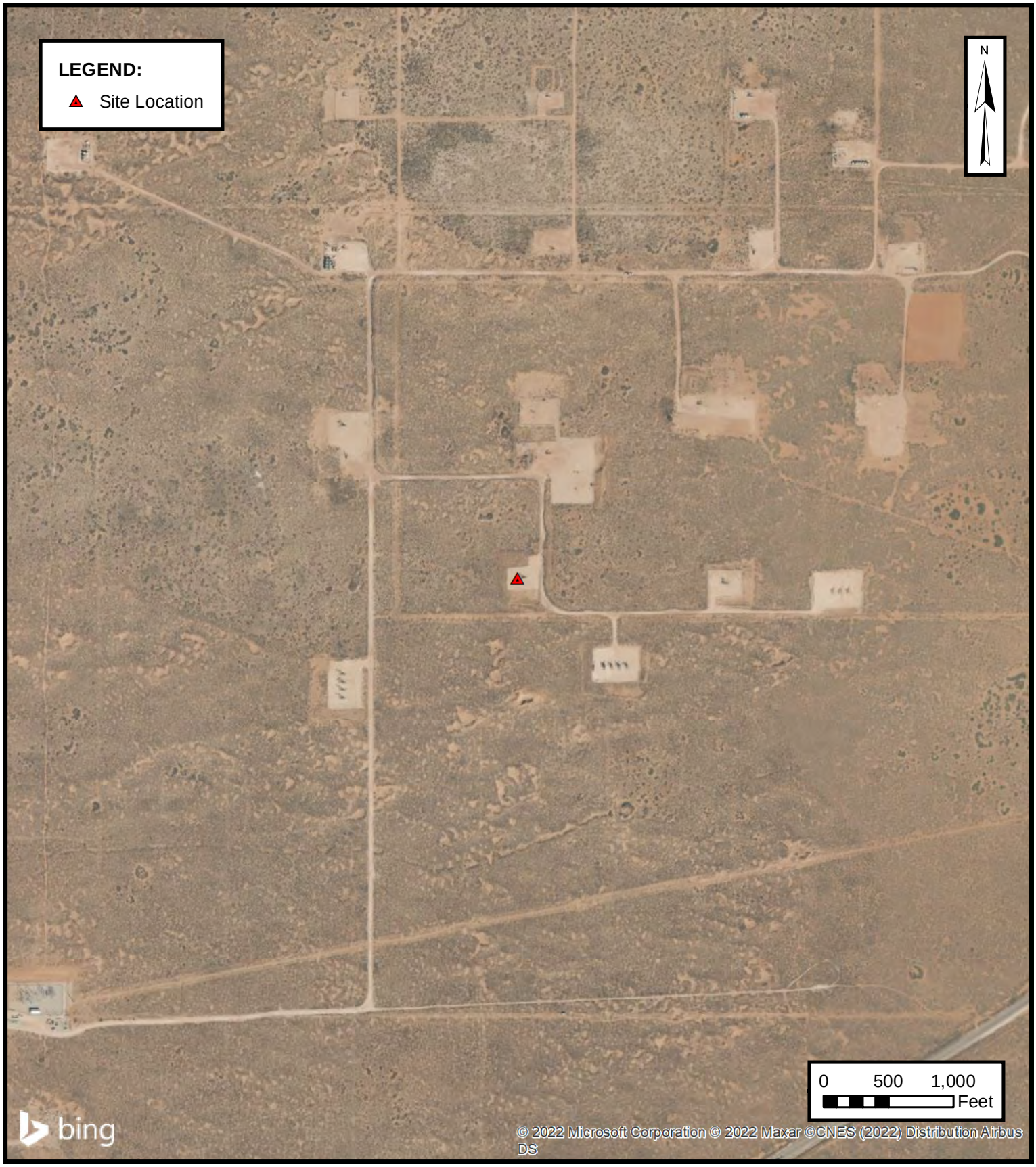
ENSOLUM
Environmental & Hydrogeologic Consultants

TOPOGRAPHIC MAP

OXY USA INC.
LOST TANK 4 FED. #0009
Eddy County, New Mexico
32.42112° N, 103.78030° W

PROJECT NUMBER: 03B1417052

FIGURE
1



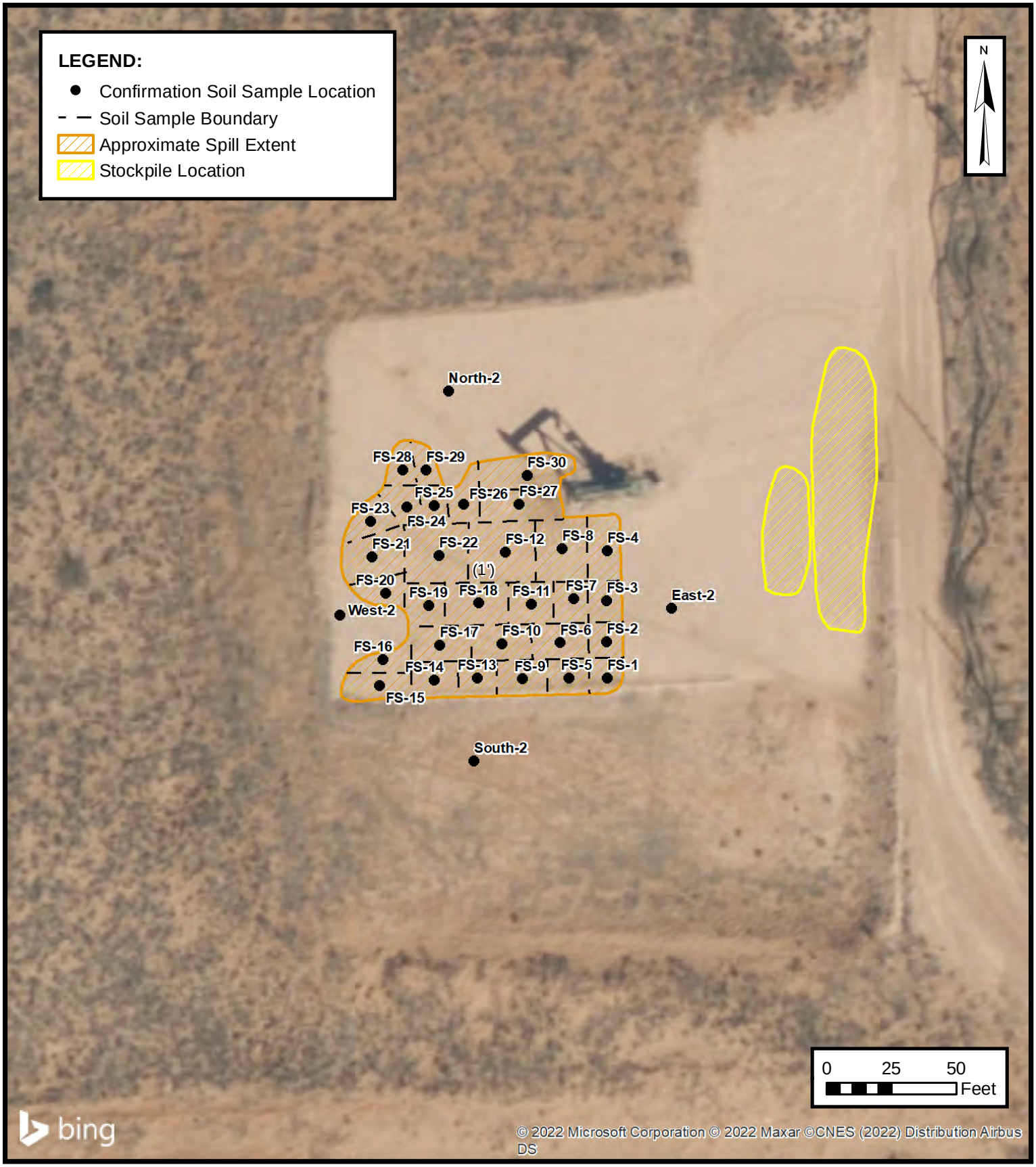
ENSOLUM
Environmental & Hydrogeologic Consultants

SITE VICINITY MAP

OXY USA INC.
LOST TANK 4 FED. #0009
Eddy County, New Mexico
32.42112° N, 103.78030° W

PROJECT NUMBER: 03B1417052

FIGURE
2



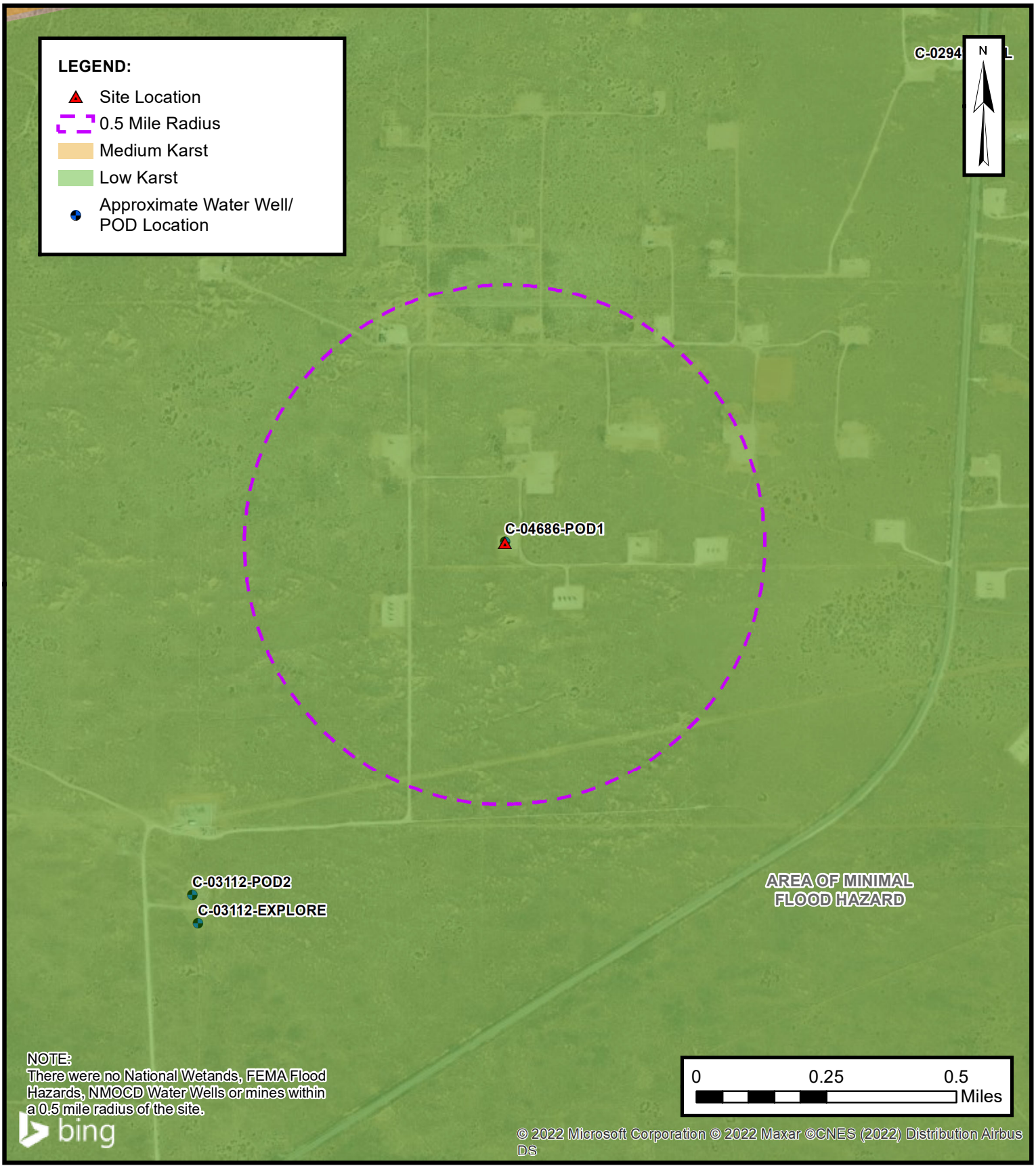
ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

SITE MAP

OXY USA INC.
LOST TANK 4 FED. #0009
Eddy County, New Mexico
32.42112° N, 103.78030° W

PROJECT NUMBER: 03B1417052

FIGURE
3



ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

CLOSURE CRITERIA MAP

OXY USA INC.
LOST TANK 4 FED. #0009
Eddy County, New Mexico
32.42112° N, 103.78030° W

PROJECT NUMBER: 03B1417052

FIGURE

4

ENSOLUM

APPENDIX B

Supporting Documentation

Client: Oxy USA Inc.
Project Name: Lost Tank 4 Fed. #0009
Project Location: Eddy County, New Mexico
Project Manager: Beaux Jennings

SOIL BORING / WELL LOG

DRILLING & SAMPLING INFORMAITON

Date Started: 11/29/2022
Date Completed: 11/29/2022
Drilling Company: West Texas Water Well Services
Driller: Russell Southerland

Soil Boring / Well Number: SB-1
Project #: 03B1417052
Drawn By: Kelly Lowery
Approved By: Beaux Jennings

Geologist: Shane Diller
Boring Method: AR
Sampler Type: AR
Bore Hole Diameter: 5 7/8"
Casing Diameter: N/A
Well Materials: N/A
Surface Completion: N/A

Sampler: Shane Diller
Logged By: Shane Diller
Screen: N/A
Total Depth: 119.95'

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▽ AT COMPLETION
▽ AT WELL STABILIZATION

Soil Boring Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	FID/PID Readings (ppm)	BORING AND SAMPLING NOTES
Drill Cuttings	0' - Caliche pad, dry, no odor 1' - Sand, red, dry, no odor 16' - Sandstone, dry, no odor 40' - Sandy clay, red, dry, no odor		10 20 30 40 50 60 70						

NR - No Recovery

ENSOLUM

Client: Oxy USA Inc.
Project Name: Lost Tank 4 Fed. #0009
Project Location: Eddy County, New Mexico
Project Manager: Beaux Jennings

SOIL BORING / WELL LOG

DRILLING & SAMPLING INFORMAITON

Date Started: 11/29/2022
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Drilling Company: West Texas Water Well Services
Driller: Russell Southerland
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Sampler: Shane Diller
Boring Method: AR
Logged By: Shane Diller
Sampler Type: AR
Bore Hole Diameter: 5 7/8"
Screen: N/A
Casing Diameter: N/A
Total Depth: 119.95'
Well Materials: N/A
Surface Completion: N/A

Soil Boring / Well Number: SB-1
Project #: 03B1417052
Drawn By: Kelly Lowery
Approved By: Beaux Jennings

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▽ AT COMPLETION
▼ AT WELL STABILIZATION

Soil Boring Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	FID/PID Readings (ppm)	BORING AND SAMPLING NOTES
Drill Cuttings			70						
			80						
			90						
Drill Cuttings			100						
			110						
Drill Cuttings	119.95' - Total Depth		120						

NR - No Recovery

ENSOLUM

Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well
☐ Oil Well ☐ Gas Well ☑ Other

8. Well Name and No. Lost Tank 4 Fed. #0009

2. Name of Operator Oxy USA Inc.

9. API Well No. 30-015-37953

3a. Address PO Box 4294, Houston, TX 77210

3b. Phone No. *(include area code)* 575-390-2828

10. Field and Pool or Exploratory Area

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
Section 4, Township 22S, Range 31E

11. Country or Parish, State
Eddy County, New Mexico

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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

Oxy USA Inc. (Oxy) respectfully requests access represented within the file to install 1 soil boring to assist with depth to groundwater determination for Lost Tank 4 Fed. #0009 (GPS Coordinates: 32.42112, -103.78030) (Incident Number: nAPP2219337009). The proposed borehole location is on BLM surface. The soil boring will be left open for approximately 72 hours, to allow for the slow infill of groundwater. Following the 72 hour waiting period, at which time Oxy will assess for the presence or absence of groundwater. A water level meter will be utilized to confirm depth to groundwater in the soil boring. A total depth of the soil boring will also be taken utilizing the water level meter. The soil boring will be backfilled following New Mexico Office of the State Engineer plugging procedures.

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*
Wade Dittrich

Title Environmental Specialist

Signature Wade Dittrich

Date 10/19/2022

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

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

(Instructions on page 2)

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Carlsbad Field Office
620 E. Greene St.
Carlsbad, NM 88220-6292

In Reply Refer To:
3162.4 (NM-080)
NMNM0417696

November 1, 2022

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

Re: Lost Tank 4 Federal 9
Section 14, T22S-R31E
32.42112,-103.78030
Eddy County, New Mexico

To Whom It May Concern:

The above well location and the immediate area mentioned above requires advanced soil boring to take place at approximately 55 feet below ground surface via an air rotary rig with hallow stem auger equipment. The boring will be secured and left open for 72 hours at which time Oxy USA Inc will assess for the presence or absence of groundwater. An oil-water interface probe will be utilized to confirm depth to groundwater in the soil boring. The Bureau of Land Management (landowner) authorizes the access of the area to accomplish depth to groundwater determination of this site.

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

Sincerely,

Crisha Morgan

Crisha A. Morgan
Certified Environmental Protection Specialist

Beaux Jennings

From: Beaux Jennings
Sent: Thursday, October 6, 2022 4:36 PM
To: OCD.Enviro@emnrd.nm.gov
Subject: Lost Tank 4 Fed. #0009 (Incident ID: nAPP2219337009)

Good Afternoon,

On behalf of Oxy USA Inc, Ensolum, LLC would like to provide notification for sampling activities that will be conducted at the Lost Tank 4 Fed. #0009 (Incident ID: nAPP2219337009) on Tuesday, October 11th at 2pm. 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

OCD Permitting

[C-141] Release Corrective Action (C-141) Application

Submission Information

Submission ID:	134058	**Districts:**	Artesia
Operator:	[16696] OXY USA INC	**Counties:**	Eddy
Description:	OXY USA INC [16696] LOST TANK 4 FED. #0009 nAPP2219337009 {Discovery: 07/04/2022, Active, , Federal}		
Status:	APPROVED		
Status Date:	09/30/2022		
References (2):	30-015-37953, nAPP2219337009		

Forms

Attachments: C-141, Proposed Schedule

Questions

This submission type does not have questions, at this time.

Acknowledgments

This submission type does not have acknowledgments, at this time.

Comments

No comments found for this submission.

Conditions

Summary: *jnobui (9/30/2022),* Remediation Plan Approved with Conditions. Please make sure the floor confirmation samples are delineated/excavated to meet closure criteria standards for proven depth to water determination. Sidewall samples should be delineated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release.

Reasons

No reasons found for this submission.

Fees

Payment	8/15/2022	Credit Card [CC]		$150.00	Paid [PAID]	9/30/2022

Go Back

ENSOLUM

August 15, 2022

Oxy USA Inc.
PO Box 4294
Houston, TX 77210
Attn: Mr. Wade Dittrich

Re: Remediation Work Plan
Lost Tank 4 Fed. #0009
Off Louis Whitlock Rd
32.42112° N, 103.78030° W
Eddy County, New Mexico
Incident ID: NAPP2219337009
Ensolum Project No. 03B1417052

Dear Mr. Dittrich:

Ensolum, LLC. (Ensolum) has prepared this Remediation Work Plan to perform environmental consulting services in the vicinity of the Lost Tank 4 Fed. #0009, referred to hereinafter as the "Site." The Site is located off Louis Whitlock Rd and an unnamed caliche road, approximately 21 miles northeast of Loving in Eddy County, New Mexico.

I. SITE DESCRIPTION & BACKGROUND

Operator:	Oxy USA Inc. (Oxy)
Site Name:	Lost Tank 4 Fed. #0009
Location:	32.42112° N, 103.78030° W Eddy County, New Mexico
Property:	Bureau of Land Management (BLM)
Regulatory:	New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

The Site is located in Unit G, Section 4, Township 22 South, Range 31 East, in Eddy County, New Mexico (32.42112° N, 103.78030° W) and is associated with oil and gas exploration and production operations on BLM Federal Land.

On July 4, 2022, a release of crude oil and produced water was reported from a packing failure from the stuffing box on a wellhead. Approximately three (3) barrels (bbls) of crude oil and approximately 12 bbls of produced water were released. No fluids were recovered. Oxy reported the release to the NMOCD and BLM through email notification on July 12, 2022. The release was assigned Incident Number NAPP2219337009.

On July 29, 2022, Ensolum arrived on-Site and collected a total of six (6) composite pothole soil samples from two (2) locations (SP-1 and SP-2) at one-foot intervals down to a depth of three (3) feet below ground surface (bgs) within the release area. Additionally, four (4) delineation composite soil samples (North, East, South, and West) were collected from a depth of 0 – 0.5 feet bgs to determine the horizontal and vertical extent of the release.

Based on the analytical results from the soil samples collected and the lack of a water well within 0.5 mile from the Site, the New Mexico Administrative Code (NMAC) 19.15.29 *Releases* Table I: Closure Criteria for Soils Impacted by a Release (≤ 50 feet) values were utilized. The composite pothole soil samples and delineation composite soil sample results are included as **Table 1** in **Attachment D**.

The Site Map indicating the overall area of the release, the composite pothole soil sample's locations, and the delineation composite soil sample's locations are included as **Figure 3** in **Attachment A**.

II. 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. Closure criteria supporting documentation is included in **Attachment B**.

- The Site is not located within 300 feet of a New Mexico ENMRD 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.
- 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 BLM, the Site is not located within an unstable area.
- The Site is not located within an area of flood hazard.

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
≤50 feet	Chloride	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

III. SCOPE OF SERVICES

A. Health and Safety Plan

Ensolum will develop a site-specific Health and Safety Plan (HSP) for the performance of the scope of services described in this Remediation Work Plan. For the purposes of this HSP, it is assumed that the constituents of concern (COCs) include petroleum hydrocarbons. For the purposes of this HSP, it is assumed that the scope of services can be conducted under modified Level D personal protective equipment (PPE), which will include fire-retardant (FR) clothing, hard hat, steel-toed boots, protective eyewear and gloves. Should the need arise to upgrade PPE (e.g. respiratory protection), the client will be notified, and the HSP will be modified accordingly. Although it is not anticipated at this time, it should be noted that a PPE upgrade will constitute a change in scope of work, requiring a change order.

B. Soil Boring Installation

Due to the absence of water wells being present within 0.5 mile of the Site, one (1) soil boring will be installed to determine the depth to groundwater in the area. The soil boring will be advanced utilizing an air rotary drilling rig, under the supervision of a state-licensed water well driller. The soil boring will be left open for approximately 48 hours to allow groundwater, if encountered, to reach static level.

Prior to initiation of drilling activities, an *Application for Permit to Drill a Well with No Consumptive Use of Water (WR-07)* will be submitted to the New Mexico OSE prior to the installation of the soil boring. In preparation for the potential encounter of groundwater, a *Well Plugging Plan of Operations (WD-08)* will be submitted to the New Mexico OSE prior to the installation of the soil boring.

If groundwater is not encontered, soil cuttings will be placed back in the bore hole and capped with bentonite sebsequent to installation and the 48 hour waiting period.

Drilling equipment will be decontaminated by high pressure cleaning prior to commencement of the project. A boring log will be created using drill cuttings from the air rotary rig to document lithology, color, relative moisture content and visual or olfactory evidence of impairment.

C. Excavation Activities

Subsequent to soil boring installation activities, the Site will be excavated by a third-party contractor to remove impacted soils in the release area based on laboratory analytical data, olfactory and/or visual evidence of impairment. Based on current analytical data taken at the Site, sample point SP-1 and SP-2 will be excavated down to two (2) feet bgs. In addition, delineation points NORTH and EAST will be excavated and subsequently sampled to ensure delineation during excavation activities.

At this time, an estimated 460 cubic yards (cy) will be excavated form the release area. The excavated impacted soils will be placed on plastic on-Site and will be taken off-Site for proper disposal upon receipt of laboratory analytical results. The remediation will be completed within 90 days of approval from the NMOCD.

D. Confirmation Composite Soil Sampling Program

Once excavation activities are complete, Ensolum will collect additional confirmation composite soil samples every 200 square-feet from the bottomhole and sidewalls of the release area based on the following criteria:

- Highest photoionization detector (PID) reading;
- Highest electrical conductivity reading; or
- Change in lithology.

E. Laboratory Analytical Program

The soil samples collected from the proposed confirmation composite samples will be analyzed for total petroleum hydrocarbons (TPH) gasoline range organics (GRO)/ diesel range organics (DRO)/ motor oil/lube oil range organics (MRO) utilizing Environmental Protection Agency (EPA) SW-846 Method 8015M, benzene, toluene, ethylbenzene and xylene (BTEX) utilizing EPA SW-846 Method 8021B, and chloride utilizing EPA Method SM4500 Cl B under the NMOCD Closure Criteria for Soils Impacted by a Release (≤50 feet). Based on the results of the soil boring installation and depth to groundwater (if encountered), the Closure Criteria limits for TPH (GRO/DRO/MRO), BTEX, benzene and/or chloride is subject to change.

IV. REPORTING

Subsequent to the completion of Site activities, a Closure Report will be prepared by Ensolum to document completed site investigation and remediation activities as well as any corrective action at the Site, if needed.

V. DELIVERABLES

The results, findings, conclusions, and recommendations, which will be provided in the Closure Report, will be based solely on the conditions which are observed during the site investigation and the information reviewed by Ensolum. No warranties or representations, expressed or implied, will be made as to the condition of the site beyond that observed by Ensolum during its site investigation.

We appreciate the opportunity to provide this Remediation Work Plan and look forward to working with you on this project. If you should have any questions or comments regarding this Remediation Work Plan, please contact either of the undersigned.

Sincerely,
Ensolum, LLC

Heather Holthaus
Senior Project Manager
hholthaus@ensolum.com

Beaux Jennings
Senior Project Manager
bjennings@ensolum.com

Attachments:

Attachment A – Figures

Attachment B – Supporting Documentation

Attachment C – Photographic Documentation

Attachment D – Table 1 – Soil Sample Analytical Results

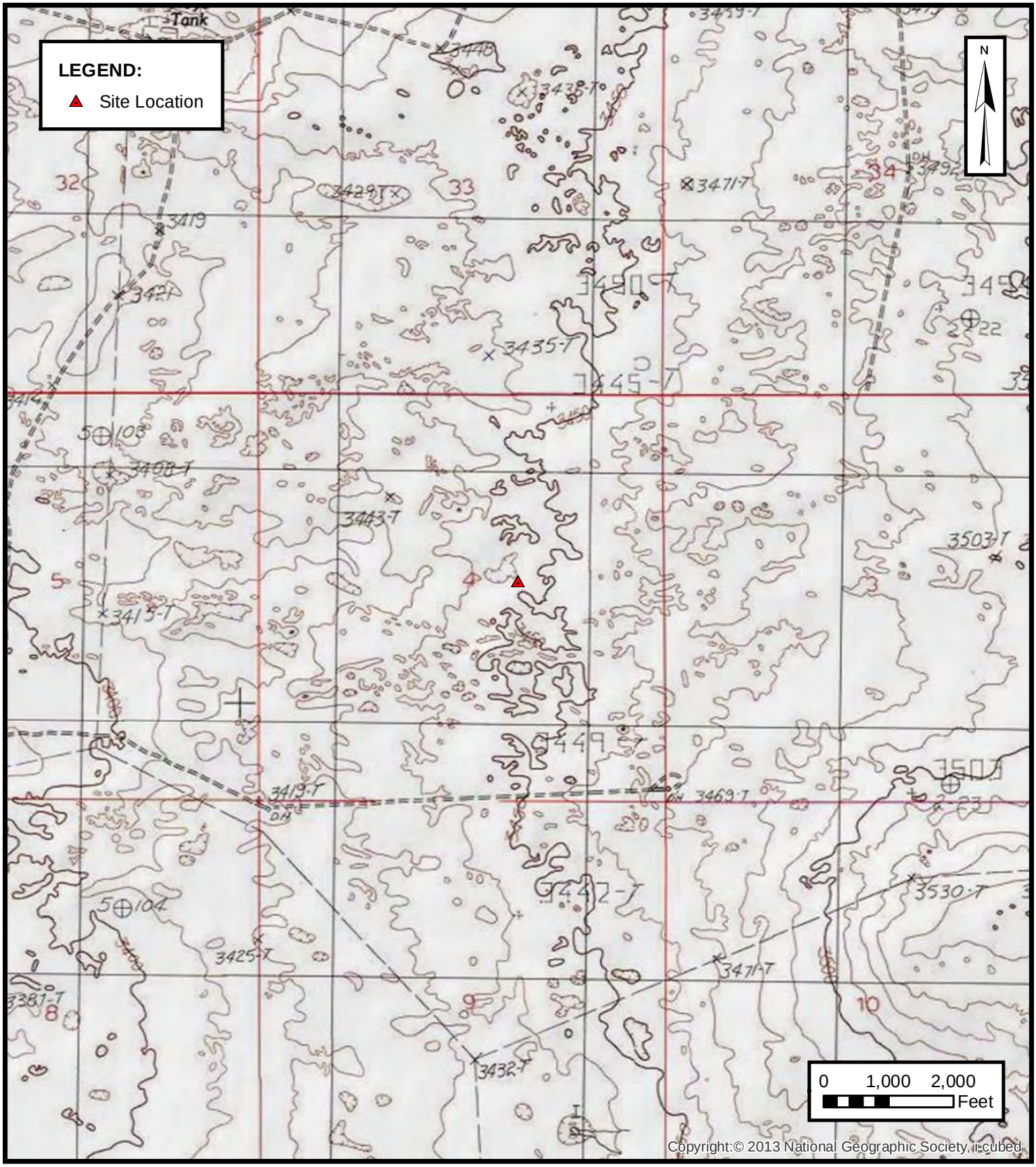
Attachment E – Laboratory Report & Chain-of-Custody Documentation

Attachment F – C-141

ENSOLUM

ATTACHMENT A

Figures



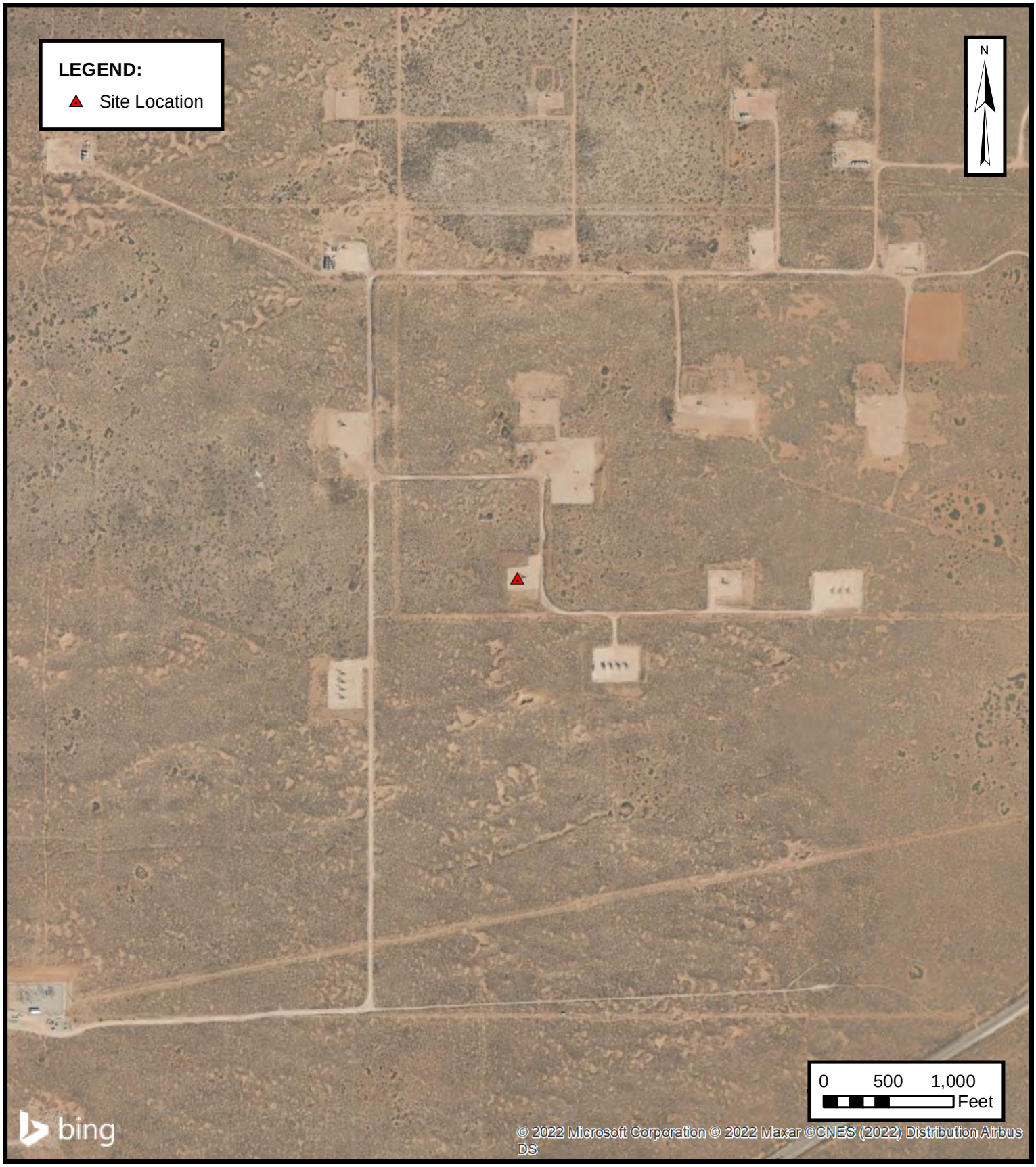
ENSOLUM
Environmental & Hydrogeologic Consultants

TOPOGRAPHIC MAP

OXY USA INC.
LOST TANK 4 FED. #0009
Eddy County, New Mexico
32.42112° N, 103.78030° W

PROJECT NUMBER: 03B1417052

FIGURE
1



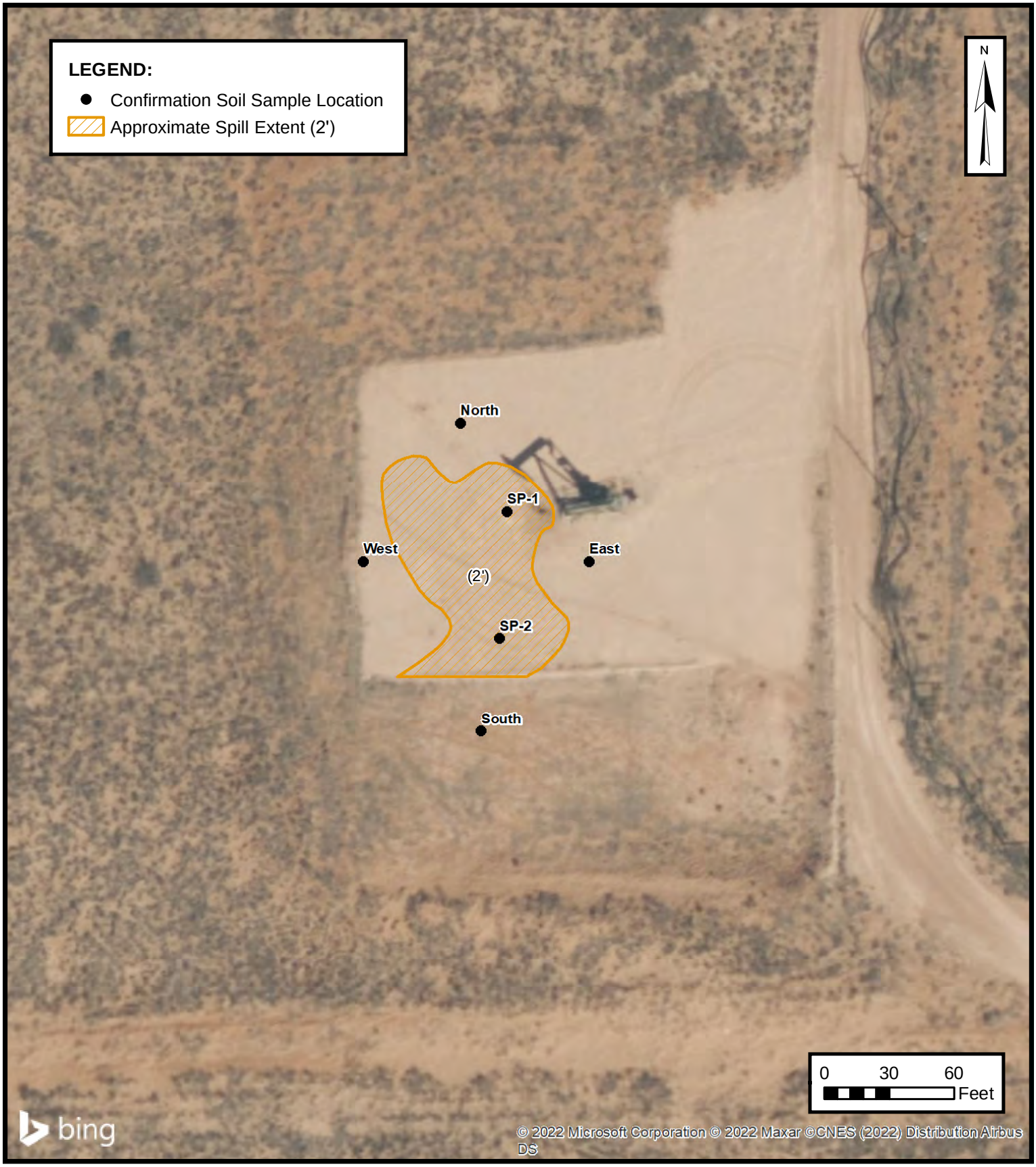
ENSOLUM
Environmental & Hydrogeologic Consultants

SITE VICINITY MAP

OXY USA INC.
LOST TANK 4 FED. #0009
Eddy County, New Mexico
32.42112° N, 103.78030° W

PROJECT NUMBER: 03B1417052

FIGURE
2



ENSOLUM
Environmental & Hydrogeologic Consultants

SITE MAP

OXY USA INC.
LOST TANK 4 FED. #0009
Eddy County, New Mexico
32.42112° N, 103.78030° W

PROJECT NUMBER: 03B1417052

FIGURE
3

ENSOLUM

APPENDIX B

Supporting Documentation

OSE POD Locations Map

8/2/2022, 2:56:08 PM

OSE District Boundary

SiteBoundaries

New Mexico State Trust Lands

Both Estates

1:18,056

0 0.13 0.25 0.5 mi

0 0.2 0.4 0.8 km

Esri, HERE, GeoTechnologies, Inc., Esri, HERE, Garmin, GeoTechnologies, Inc., U.S. Department of Energy Office of Legacy Management, Maxar

Unofficial Online Map

These maps are distributed "as is" without warranty of any kind

National Flood Hazard Layer FIRMette

FEMA

103°47'7"W 32°25'31"N

103°46'30"W 32°25'1"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/2/2022 at 2:48 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

U.S. Fish and Wildlife Service
National Wetlands Inventory

Lost Tank 4 Fed. #0009

August 2, 2022

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Active Mines in New Mexico

8/2/2022, 2:42:33 PM

1:72,224

Registered Mines

Aggregate, Stone etc.

0 0.5 1 2 mi

0 0.75 1.5 3 km

Sources: Esri, USGS, NOAA, Sources: Esri, Garmin, USGS, NPS

EMNRD MMD GIS Coordinator

NM Energy, Minerals and Natural Resources Department (http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=1b5e577974664d689b47790897ca2795)

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ATTACHMENT C

Photographic Documentation

View of release point while marking for one call, facing south.

View of release area while marking for one call, facing east.

View of release area during initial soil sampling activities, facing southeast.

View of release area during initial soil sampling activities, facing south.

ENSOLUM

ATTACHMENT D

Table 1 - Soil Sample Analytical Results

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Oxy USA Inc. - Lost Tank 4 Fed. #0009
Eddy County, New Mexico

Ensolum Project No. 03B1417052

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (GRO+DRO+MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (≤ 50 feet)			**10**	**NE**	**NE**	**NE**	**50**	**NE**	**NE**	**NE**	**100**	**600**
Pothole Sample Analytical Results												
SP-1	7/29/2022	0 - 1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	**94.0**	**28.0**	**122**	**15,200**
		1 - 2	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	**81.1**	**21.8**	**103**	**14,000**
		2 - 3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	**84.8**	**17.4**	**102**	**2,680**
SP-2	7/29/2022	0 - 1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**6,000**
		1 - 2	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**9,000**
		2 - 3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**560**
Delineation Sample Analytical Results												
NORTH	7/29/2022	0 - 0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**880**
WEST	7/29/2022	0 - 0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**80.0**
EAST	7/29/2022	0 - 0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	**2,400**	<10.0	**2,400**	**224**
SOUTH	7/29/2022	0 - 0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**32.0**

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

bgs: below ground surface

mg/kg: milligrams per kilogram

NE: Not Established

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

MRO: Motor Oil/Lube Oil Range Organics

TPH: Total Petroleum Hydrocarbon

ENSOLUM

ATTACHMENT E

Laboratory Report & Chain-of-Custody Documentation

CARDINAL Laboratories

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

August 04, 2022

BEAUX JENNINGS

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: LOST TANK 4 FED. # 0009

Enclosed are the results of analyses for samples received by the laboratory on 07/29/22 12:20.

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.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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:	07/29/2022	Sampling Date:	07/29/2022
Reported:	08/04/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

Sample ID: NORTH 0-.5' (H223364-01)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/03/2022	ND	2.02	101	2.00	1.87	
Toluene*	<0.050	0.050	08/03/2022	ND	2.08	104	2.00	2.56	
Ethylbenzene*	<0.050	0.050	08/03/2022	ND	2.10	105	2.00	2.22	
Total Xylenes*	<0.150	0.150	08/03/2022	ND	6.35	106	6.00	3.11	
Total BTEX	<0.300	0.300	08/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.9 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**880**	16.0	08/02/2022	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	08/03/2022	ND	243	121	200	1.83	
DRO >C10-C28*	<10.0	10.0	08/03/2022	ND	252	126	200	2.49	
EXT DRO >C28-C36	<10.0	10.0	08/03/2022	ND					

Surrogate: 1-Chlorooctane *94.2 %* *43-149*

Surrogate: 1-Chlorooctadecane *87.9 %* *42.5-161*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	07/29/2022	Sampling Date:	07/29/2022
Reported:	08/04/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

Sample ID: WEST 0-.5' (H223364-02)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/03/2022	ND	2.02	101	2.00	1.87	
Toluene*	<0.050	0.050	08/03/2022	ND	2.08	104	2.00	2.56	
Ethylbenzene*	<0.050	0.050	08/03/2022	ND	2.10	105	2.00	2.22	
Total Xylenes*	<0.150	0.150	08/03/2022	ND	6.35	106	6.00	3.11	
Total BTEX	<0.300	0.300	08/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.1 %* *69.9-140*

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	08/02/2022	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	08/03/2022	ND	243	121	200	1.83	
DRO >C10-C28*	<10.0	10.0	08/03/2022	ND	252	126	200	2.49	
EXT DRO >C28-C36	<10.0	10.0	08/03/2022	ND					

Surrogate: 1-Chlorooctane *93.7 %* *43-149*

Surrogate: 1-Chlorooctadecane *87.6 %* *42.5-161*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	07/29/2022	Sampling Date:	07/29/2022
Reported:	08/04/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

Sample ID: EAST 0-.5' (H223364-03)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/03/2022	ND	2.02	101	2.00	1.87	
Toluene*	<0.050	0.050	08/03/2022	ND	2.08	104	2.00	2.56	
Ethylbenzene*	<0.050	0.050	08/03/2022	ND	2.10	105	2.00	2.22	
Total Xylenes*	<0.150	0.150	08/03/2022	ND	6.35	106	6.00	3.11	
Total BTEX	<0.300	0.300	08/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *93.5 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**224**	16.0	08/02/2022	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/03/2022	ND	243	121	200	1.83	
DRO >C10-C28*	**2400**	10.0	08/03/2022	ND	252	126	200	2.49	
EXT DRO >C28-C36	<10.0	10.0	08/03/2022	ND					

Surrogate: 1-Chlorooctane *98.3 %* *43-149*

Surrogate: 1-Chlorooctadecane *173 %* *42.5-161*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	07/29/2022	Sampling Date:	07/29/2022
Reported:	08/04/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

Sample ID: SOUTH 0-.5' (H223364-04)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/03/2022	ND	2.02	101	2.00	1.87	
Toluene*	<0.050	0.050	08/03/2022	ND	2.08	104	2.00	2.56	
Ethylbenzene*	<0.050	0.050	08/03/2022	ND	2.10	105	2.00	2.22	
Total Xylenes*	<0.150	0.150	08/03/2022	ND	6.35	106	6.00	3.11	
Total BTEX	<0.300	0.300	08/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *93.4 %* *69.9-140*

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	08/02/2022	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	08/03/2022	ND	243	121	200	1.83	
DRO >C10-C28*	<10.0	10.0	08/03/2022	ND	252	126	200	2.49	
EXT DRO >C28-C36	<10.0	10.0	08/03/2022	ND					

Surrogate: 1-Chlorooctane *95.3 %* *43-149*

Surrogate: 1-Chlorooctadecane *90.9 %* *42.5-161*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	07/29/2022	Sampling Date:	07/29/2022
Reported:	08/04/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

Sample ID: SP - 1 0-1' (H223364-05)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/03/2022	ND	2.02	101	2.00	1.87	
Toluene*	<0.050	0.050	08/03/2022	ND	2.08	104	2.00	2.56	
Ethylbenzene*	<0.050	0.050	08/03/2022	ND	2.10	105	2.00	2.22	
Total Xylenes*	<0.150	0.150	08/03/2022	ND	6.35	106	6.00	3.11	
Total BTEX	<0.300	0.300	08/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.0 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**15200**	16.0	08/02/2022	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	08/02/2022	ND	211	106	200	3.29	
DRO >C10-C28*	**94.0**	10.0	08/02/2022	ND	221	111	200	3.14	
EXT DRO >C28-C36	**28.0**	10.0	08/02/2022	ND					

Surrogate: 1-Chlorooctane *72.3 %* *43-149*

Surrogate: 1-Chlorooctadecane *87.2 %* *42.5-161*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	07/29/2022	Sampling Date:	07/29/2022
Reported:	08/04/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

Sample ID: SP - 2 0-1' (H223364-06)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/03/2022	ND	2.02	101	2.00	1.87	
Toluene*	<0.050	0.050	08/03/2022	ND	2.08	104	2.00	2.56	
Ethylbenzene*	<0.050	0.050	08/03/2022	ND	2.10	105	2.00	2.22	
Total Xylenes*	<0.150	0.150	08/03/2022	ND	6.35	106	6.00	3.11	
Total BTEX	<0.300	0.300	08/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *93.1 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**6000**	16.0	08/02/2022	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	08/02/2022	ND	211	106	200	3.29	
DRO >C10-C28*	<10.0	10.0	08/02/2022	ND	221	111	200	3.14	
EXT DRO >C28-C36	<10.0	10.0	08/02/2022	ND					

Surrogate: 1-Chlorooctane *86.7 %* *43-149*

Surrogate: 1-Chlorooctadecane *99.4 %* *42.5-161*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	07/29/2022	Sampling Date:	07/29/2022
Reported:	08/04/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

Sample ID: SP - 1 1-2' (H223364-07)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/03/2022	ND	2.02	101	2.00	1.87	
Toluene*	<0.050	0.050	08/03/2022	ND	2.08	104	2.00	2.56	
Ethylbenzene*	<0.050	0.050	08/03/2022	ND	2.10	105	2.00	2.22	
Total Xylenes*	<0.150	0.150	08/03/2022	ND	6.35	106	6.00	3.11	
Total BTEX	<0.300	0.300	08/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *94.3 %* *69.9-140*

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	08/02/2022	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	08/02/2022	ND	211	106	200	3.29	
DRO >C10-C28*	**81.1**	10.0	08/02/2022	ND	221	111	200	3.14	
EXT DRO >C28-C36	**21.8**	10.0	08/02/2022	ND					

Surrogate: 1-Chlorooctane *87.4 %* *43-149*

Surrogate: 1-Chlorooctadecane *103 %* *42.5-161*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	07/29/2022	Sampling Date:	07/29/2022
Reported:	08/04/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

Sample ID: SP - 2 1-2' (H223364-08)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/03/2022	ND	2.02	101	2.00	1.87	
Toluene*	<0.050	0.050	08/03/2022	ND	2.08	104	2.00	2.56	
Ethylbenzene*	<0.050	0.050	08/03/2022	ND	2.10	105	2.00	2.22	
Total Xylenes*	<0.150	0.150	08/03/2022	ND	6.35	106	6.00	3.11	
Total BTEX	<0.300	0.300	08/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.5 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**9000**	16.0	08/02/2022	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	08/02/2022	ND	211	106	200	3.29	
DRO >C10-C28*	<10.0	10.0	08/02/2022	ND	221	111	200	3.14	
EXT DRO >C28-C36	<10.0	10.0	08/02/2022	ND					

Surrogate: 1-Chlorooctane *86.9 %* *43-149*

Surrogate: 1-Chlorooctadecane *100 %* *42.5-161*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	07/29/2022	Sampling Date:	07/29/2022
Reported:	08/04/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

Sample ID: SP - 1 2-3' (H223364-09)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/02/2022	ND	1.92	96.0	2.00	9.82	
Toluene*	<0.050	0.050	08/02/2022	ND	2.01	100	2.00	9.43	
Ethylbenzene*	<0.050	0.050	08/02/2022	ND	2.00	100	2.00	9.37	
Total Xylenes*	<0.150	0.150	08/02/2022	ND	6.10	102	6.00	8.83	
Total BTEX	<0.300	0.300	08/02/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2680**	16.0	08/02/2022	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	08/02/2022	ND	211	106	200	3.29	
DRO >C10-C28*	**84.8**	10.0	08/02/2022	ND	221	111	200	3.14	
EXT DRO >C28-C36	**17.4**	10.0	08/02/2022	ND					

Surrogate: 1-Chlorooctane *83.0 %* *43-149*

Surrogate: 1-Chlorooctadecane *100 %* *42.5-161*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	07/29/2022	Sampling Date:	07/29/2022
Reported:	08/04/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

Sample ID: SP - 2 2-3' (H223364-10)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/02/2022	ND	1.92	96.0	2.00	9.82	
Toluene*	<0.050	0.050	08/02/2022	ND	2.01	100	2.00	9.43	
Ethylbenzene*	<0.050	0.050	08/02/2022	ND	2.00	100	2.00	9.37	
Total Xylenes*	<0.150	0.150	08/02/2022	ND	6.10	102	6.00	8.83	
Total BTEX	<0.300	0.300	08/02/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *115 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**560**	16.0	08/02/2022	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	08/02/2022	ND	211	106	200	3.29	
DRO >C10-C28*	<10.0	10.0	08/02/2022	ND	221	111	200	3.14	
EXT DRO >C28-C36	<10.0	10.0	08/02/2022	ND					

Surrogate: 1-Chlorooctane *82.7 %* *43-149*

Surrogate: 1-Chlorooctadecane *93.5 %* *42.5-161*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Ensolum, LLC	**BILL TO** P.O. #:	
Project Manager:	Beaux Jennings	Company:	
Address:	601 N Marienfeld st. Suite 400	Attn:	
City:	Midland State: Tx Zip: 79701	Address:	
Phone #:	(210) 219-4858 Fax #:	City:	
Project #:	03B1417052 Project Owner:	State: Zip:	
Project Name:	Lost Tank 4 Fed. #0009	Phone #:	
Project Location:	Eddy County	Fax #:	
Sampler Name:	Samantha Mackenzie		

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	TPH 8015 M	BTEX 8021 B	Chlorides 4500	NFE 7/29/22
H223364																		
1	North 0-.5'	G	1			X					X		7/29/22	0837	X	X	X	
2	West 0-.5'	G	1			X					X		7/29/22	0843	X	X	X	
3	East 0-.5'	G	1			X					X		7/29/22	0850	X	X	X	
4	South 0-.5'	G	1			X					X		7/29/22	0853	X	X	X	
5	Sp-01 0-1'	G	1			X					X		7/29/22	0900	X	X	X	
6	Sp-02 0-1'	G	1			X					X		7/29/22	0906	X	X	X	
7	Sp-1 0-2'	G	1			X					X		7/29/22	1015	X	X	X	
8	Sp-2 0-2'	G	1			X					X		7/29/22	1020	X	X	X	
9	Sp-1 2-3'	G	1			X					X		7/29/22	1058	X	X	X	
10	Sp-2 2-3'	G	1			X					X		7/29/22	1054	X	X	X	Sam

Relinquished By: Samantha Mackenzie	Date: 7/29/22 Time: 1220	Received By: Tamara Oldaker	Verbal Result: ☐ Yes ☐ No Add'l Phone #: All Results are emailed. Please provide Email address:
Relinquished By:	Date: Time:	Received By:	REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 5.0 Corrected Temp. °C 4.4	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials) T.O.
Turnaround Time: Standard ☑ Rush ☐	Thermometer ID #113 Correction Factor -0.6°C	T.O. 7/29/22	Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

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

FORM-006 R 3.2 10/07/21

ENSOLUM

APPENDIX F

C-141

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 Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nAPP2219337009
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Oxy USA Inc.	OGRID: 16696
Contact Name: Wade Dittrich	Contact Telephone: 575-390-2828
Contact email: wade_dittrich@oxy.com	Incident # *(assigned by OCD)*
Contact mailing address: PO Box 4294, Houston, TX 77210	

Location of Release Source

Latitude 32.42112 Longitude -103.78030
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Lost Tank 4 Fed. #0009	Site Type: Well Pad
Date Release Discovered: 7/4/2022	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
G	4	22S	31E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls): 3	Volume Recovered (bbls): 0
☒ Produced Water	Volume Released (bbls): 12	Volume Recovered (bbls): 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Stuffing box on wellhead, packing failure.

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2219337009
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

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.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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.

Printed Name: Wade Dittrich
Title: Environmental Specialist

Signature: Wade Dittrich
Date: 7-12-22

email: wade_dittrich@oxy.com
Telephone: 575-390-2828

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2219337009
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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?	N/A (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2219337009
District RP	
Facility ID	
Application ID	

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.

Printed Name: Wade Dittrich Title: Environmental Specialist

Signature: Wade Dittrich Date: 8-15-22

email: wade_dittrich@oxy.com Telephone: 575-390-2828

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2219337009
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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.

Printed Name: Wade Dittrich Title: Environmental Specialist

Signature: Wade Dittrich Date: 8-15-22

email: wade_dittrich@oxy.com Telephone: 575-390-2828

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

ENSOLUM

APPENDIX C

Photographic Documentation

View of release point during intitial soil sampling activities, facing south.

View of release area during initial soil sampling activities, facing east.

View of release area during excavation activities, facing south.

View of release area during excavation activities, facing northwest.

ENSOLUM

APPENDIX D

Tables

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Lost Tank 4 Fed. #0009
Oxy USA Inc.
Eddy County, New Mexico
Ensolum Project No. 03B1417052

Sample I.D.	Sample Date	Sample 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
Pothole Sample Analytical Results											
SP-1	7/29/2022	0 - 1	<0.050	<0.050	<0.050	<0.150	<0.300	**94.0**	**28.0**	**122**	**15,200**
		1 - 2	<0.050	<0.050	<0.050	<0.150	<0.300	**81.1**	**21.8**	**103**	**14,000**
		2 - 3	<0.050	<0.050	<0.050	<0.150	<0.300	**84.8**	**17.4**	**102**	**2,680**
SP-2	7/29/2022	0 - 1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**6,000**
		1 - 2	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**9,000**
		2 - 3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**560**
Floor Sample Analytical Results											
FS-1	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**1,330**
FS-2	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**608**
FS-3	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**80.0**
FS-4	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**896**
FS-5	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**592**
FS-6	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**1,570**
FS-7	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**784**
FS-8	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**3,560**
FS-9	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**672**
FS-10	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**2,000**
FS-11	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**2,400**
FS-12	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**4,280**
FS-13	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**672**
FS-14	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**800**
FS-15	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**192**
FS-16	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**448**
FS-17	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**640**
FS-18	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**128**
FS-19	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**512**
FS-20	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**400**
FS-21	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**1,040**
FS-22	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**800**
FS-23	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**576**
FS-24	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	**30.5**	<10.0	**30.5**	**896**
FS-25	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**128**
FS-26	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**640**
FS-27	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**992**
FS-28	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**448**
FS-29	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**4,800**
FS-30	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	**21.2**	<10.0	**21.2**	**1,560**
Delineation Sample Analytical Results											
NORTH	7/29/2022	0 - 0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**880**
NORTH-2	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**80.0**
WEST	7/29/2022	0 - 0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**80.0**
WEST-2	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<16.0
EAST	7/29/2022	0 - 0.5	<0.050	<0.050	<0.050	<0.150	<0.300	**2,400**	<10.0	**2,400**	**224**
EAST-2	10/11/2022	1	<0.050	<0.050	<0.050	<0.150	<0.300	**54.8**	<10.0	**54.8**	**560**
SOUTH	7/29/2022	0 - 0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**32.0**
SOUTH-2	10/11/2022		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	**32.0**

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

Over Ecavated and/or Re-Sampled

bgs: below ground surface

mg/kg: milligrams per kilogram

NE: Not Established

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

MRO: Motor Oil/Lube Oil Range Organics

TPH: Total Petroleum Hydrocarbon

ENSOLUM

APPENDIX E

Laboratory Data Sheets and Chain-of-Custody Documentation

CARDINAL Laboratories

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

August 04, 2022

BEAUX JENNINGS

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: LOST TANK 4 FED. # 0009

Enclosed are the results of analyses for samples received by the laboratory on 07/29/22 12:20.

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.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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:	07/29/2022	Sampling Date:	07/29/2022
Reported:	08/04/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

Sample ID: NORTH 0-.5' (H223364-01)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/03/2022	ND	2.02	101	2.00	1.87	
Toluene*	<0.050	0.050	08/03/2022	ND	2.08	104	2.00	2.56	
Ethylbenzene*	<0.050	0.050	08/03/2022	ND	2.10	105	2.00	2.22	
Total Xylenes*	<0.150	0.150	08/03/2022	ND	6.35	106	6.00	3.11	
Total BTEX	<0.300	0.300	08/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.9 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**880**	16.0	08/02/2022	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	08/03/2022	ND	243	121	200	1.83	
DRO >C10-C28*	<10.0	10.0	08/03/2022	ND	252	126	200	2.49	
EXT DRO >C28-C36	<10.0	10.0	08/03/2022	ND					

Surrogate: 1-Chlorooctane *94.2 %* *43-149*

Surrogate: 1-Chlorooctadecane *87.9 %* *42.5-161*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	07/29/2022	Sampling Date:	07/29/2022
Reported:	08/04/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

Sample ID: WEST 0-.5' (H223364-02)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/03/2022	ND	2.02	101	2.00	1.87	
Toluene*	<0.050	0.050	08/03/2022	ND	2.08	104	2.00	2.56	
Ethylbenzene*	<0.050	0.050	08/03/2022	ND	2.10	105	2.00	2.22	
Total Xylenes*	<0.150	0.150	08/03/2022	ND	6.35	106	6.00	3.11	
Total BTEX	<0.300	0.300	08/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.1 %* *69.9-140*

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	08/02/2022	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	08/03/2022	ND	243	121	200	1.83	
DRO >C10-C28*	<10.0	10.0	08/03/2022	ND	252	126	200	2.49	
EXT DRO >C28-C36	<10.0	10.0	08/03/2022	ND					

Surrogate: 1-Chlorooctane *93.7 %* *43-149*

Surrogate: 1-Chlorooctadecane *87.6 %* *42.5-161*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	07/29/2022	Sampling Date:	07/29/2022
Reported:	08/04/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

Sample ID: EAST 0-.5' (H223364-03)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/03/2022	ND	2.02	101	2.00	1.87	
Toluene*	<0.050	0.050	08/03/2022	ND	2.08	104	2.00	2.56	
Ethylbenzene*	<0.050	0.050	08/03/2022	ND	2.10	105	2.00	2.22	
Total Xylenes*	<0.150	0.150	08/03/2022	ND	6.35	106	6.00	3.11	
Total BTEX	<0.300	0.300	08/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *93.5 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**224**	16.0	08/02/2022	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/03/2022	ND	243	121	200	1.83	
DRO >C10-C28*	**2400**	10.0	08/03/2022	ND	252	126	200	2.49	
EXT DRO >C28-C36	<10.0	10.0	08/03/2022	ND					

Surrogate: 1-Chlorooctane *98.3 %* *43-149*

Surrogate: 1-Chlorooctadecane *173 %* *42.5-161*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	07/29/2022	Sampling Date:	07/29/2022
Reported:	08/04/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

Sample ID: SOUTH 0-.5' (H223364-04)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/03/2022	ND	2.02	101	2.00	1.87	
Toluene*	<0.050	0.050	08/03/2022	ND	2.08	104	2.00	2.56	
Ethylbenzene*	<0.050	0.050	08/03/2022	ND	2.10	105	2.00	2.22	
Total Xylenes*	<0.150	0.150	08/03/2022	ND	6.35	106	6.00	3.11	
Total BTEX	<0.300	0.300	08/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *93.4 %* *69.9-140*

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	08/02/2022	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	08/03/2022	ND	243	121	200	1.83	
DRO >C10-C28*	<10.0	10.0	08/03/2022	ND	252	126	200	2.49	
EXT DRO >C28-C36	<10.0	10.0	08/03/2022	ND					

Surrogate: 1-Chlorooctane *95.3 %* *43-149*

Surrogate: 1-Chlorooctadecane *90.9 %* *42.5-161*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	07/29/2022	Sampling Date:	07/29/2022
Reported:	08/04/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

Sample ID: SP - 1 0-1' (H223364-05)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/03/2022	ND	2.02	101	2.00	1.87	
Toluene*	<0.050	0.050	08/03/2022	ND	2.08	104	2.00	2.56	
Ethylbenzene*	<0.050	0.050	08/03/2022	ND	2.10	105	2.00	2.22	
Total Xylenes*	<0.150	0.150	08/03/2022	ND	6.35	106	6.00	3.11	
Total BTEX	<0.300	0.300	08/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.0 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**15200**	16.0	08/02/2022	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	08/02/2022	ND	211	106	200	3.29	
DRO >C10-C28*	**94.0**	10.0	08/02/2022	ND	221	111	200	3.14	
EXT DRO >C28-C36	**28.0**	10.0	08/02/2022	ND					

Surrogate: 1-Chlorooctane *72.3 %* *43-149*

Surrogate: 1-Chlorooctadecane *87.2 %* *42.5-161*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	07/29/2022	Sampling Date:	07/29/2022
Reported:	08/04/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

Sample ID: SP - 2 0-1' (H223364-06)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/03/2022	ND	2.02	101	2.00	1.87	
Toluene*	<0.050	0.050	08/03/2022	ND	2.08	104	2.00	2.56	
Ethylbenzene*	<0.050	0.050	08/03/2022	ND	2.10	105	2.00	2.22	
Total Xylenes*	<0.150	0.150	08/03/2022	ND	6.35	106	6.00	3.11	
Total BTEX	<0.300	0.300	08/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *93.1 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**6000**	16.0	08/02/2022	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	08/02/2022	ND	211	106	200	3.29	
DRO >C10-C28*	<10.0	10.0	08/02/2022	ND	221	111	200	3.14	
EXT DRO >C28-C36	<10.0	10.0	08/02/2022	ND					

Surrogate: 1-Chlorooctane *86.7 %* *43-149*

Surrogate: 1-Chlorooctadecane *99.4 %* *42.5-161*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	07/29/2022	Sampling Date:	07/29/2022
Reported:	08/04/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

Sample ID: SP - 1 1-2' (H223364-07)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/03/2022	ND	2.02	101	2.00	1.87	
Toluene*	<0.050	0.050	08/03/2022	ND	2.08	104	2.00	2.56	
Ethylbenzene*	<0.050	0.050	08/03/2022	ND	2.10	105	2.00	2.22	
Total Xylenes*	<0.150	0.150	08/03/2022	ND	6.35	106	6.00	3.11	
Total BTEX	<0.300	0.300	08/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *94.3 %* *69.9-140*

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	08/02/2022	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	08/02/2022	ND	211	106	200	3.29	
DRO >C10-C28*	**81.1**	10.0	08/02/2022	ND	221	111	200	3.14	
EXT DRO >C28-C36	**21.8**	10.0	08/02/2022	ND					

Surrogate: 1-Chlorooctane *87.4 %* *43-149*

Surrogate: 1-Chlorooctadecane *103 %* *42.5-161*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	07/29/2022	Sampling Date:	07/29/2022
Reported:	08/04/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

Sample ID: SP - 2 1-2' (H223364-08)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/03/2022	ND	2.02	101	2.00	1.87	
Toluene*	<0.050	0.050	08/03/2022	ND	2.08	104	2.00	2.56	
Ethylbenzene*	<0.050	0.050	08/03/2022	ND	2.10	105	2.00	2.22	
Total Xylenes*	<0.150	0.150	08/03/2022	ND	6.35	106	6.00	3.11	
Total BTEX	<0.300	0.300	08/03/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.5 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**9000**	16.0	08/02/2022	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	08/02/2022	ND	211	106	200	3.29	
DRO >C10-C28*	<10.0	10.0	08/02/2022	ND	221	111	200	3.14	
EXT DRO >C28-C36	<10.0	10.0	08/02/2022	ND					

Surrogate: 1-Chlorooctane *86.9 %* *43-149*

Surrogate: 1-Chlorooctadecane *100 %* *42.5-161*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	07/29/2022	Sampling Date:	07/29/2022
Reported:	08/04/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

Sample ID: SP - 1 2-3' (H223364-09)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/02/2022	ND	1.92	96.0	2.00	9.82	
Toluene*	<0.050	0.050	08/02/2022	ND	2.01	100	2.00	9.43	
Ethylbenzene*	<0.050	0.050	08/02/2022	ND	2.00	100	2.00	9.37	
Total Xylenes*	<0.150	0.150	08/02/2022	ND	6.10	102	6.00	8.83	
Total BTEX	<0.300	0.300	08/02/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2680**	16.0	08/02/2022	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	08/02/2022	ND	211	106	200	3.29	
DRO >C10-C28*	**84.8**	10.0	08/02/2022	ND	221	111	200	3.14	
EXT DRO >C28-C36	**17.4**	10.0	08/02/2022	ND					

Surrogate: 1-Chlorooctane *83.0 %* *43-149*

Surrogate: 1-Chlorooctadecane *100 %* *42.5-161*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	07/29/2022	Sampling Date:	07/29/2022
Reported:	08/04/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY		

Sample ID: SP - 2 2-3' (H223364-10)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/02/2022	ND	1.92	96.0	2.00	9.82	
Toluene*	<0.050	0.050	08/02/2022	ND	2.01	100	2.00	9.43	
Ethylbenzene*	<0.050	0.050	08/02/2022	ND	2.00	100	2.00	9.37	
Total Xylenes*	<0.150	0.150	08/02/2022	ND	6.10	102	6.00	8.83	
Total BTEX	<0.300	0.300	08/02/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *115 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**560**	16.0	08/02/2022	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	08/02/2022	ND	211	106	200	3.29	
DRO >C10-C28*	<10.0	10.0	08/02/2022	ND	221	111	200	3.14	
EXT DRO >C28-C36	<10.0	10.0	08/02/2022	ND					

Surrogate: 1-Chlorooctane *82.7 %* *43-149*

Surrogate: 1-Chlorooctadecane *93.5 %* *42.5-161*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Ensolum, LLC	**BILL TO**	
Project Manager:	Beaux Jennings	P.O. #:	
Address:	601 N Marienfeld St. Suite 400	Company:	
City:	Midland State: Tx Zip: 79701	Attn:	
Phone #:	(210) 219-4858 Fax #:	Address:	
Project #:	03B1417052 Project Owner:	City:	
Project Name:	Lost Tank 4 Fed. #0009	State: Zip:	
Project Location:	Eddy County	Phone #:	
Sampler Name:	Samantha Mackenzie	Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	TPH 8015M	BTEX 8021B	Chlorides 4500	NFE 7/29/22	Sam
H223364																			
1	North 0-.5'	G	1			X					X		7/29/22	0837	X	X	X		
2	West 0-.5'	G	1			X					X		7/29/22	0843	X	X	X		
3	East 0-.5'	G	1			X					X		7/29/22	0850	X	X	X		
4	South 0-.5'	G	1			X					X		7/29/22	0853	X	X	X		
5	Sp-01 0-1'	G	1			X					X		7/29/22	0900	X	X	X		
6	Sp-02 0-1'	G	1			X					X		7/29/22	0906	X	X	X		
7	Sp-1 0-2'	G	1			X					X		7/29/22	1015	X	X	X		
8	Sp-2 0-2'	G	1			X					X		7/29/22	1020	X	X	X		
9	Sp-1 2-3'	G	1			X					X		7/29/22	1050	X	X	X		
10	Sp-2 2-3'	G	1			X					X		7/29/22	1054	X	X	X		

Relinquished By: Samantha Mackenzie	Date: 7/29/22 Time: 1220	Received By: Navara Oldaker	Verbal Result: ☐ Yes ☐ No Add'l Phone #: All Results are emailed. Please provide Email address:
Relinquished By:	Date: Time:	Received By:	REMARKS:

Delivered By: (Circle One)	Observed Temp. °C 5.0	Sample Condition Cool Intact	CHECKED BY: (Initials)	Turnaround Time: Standard ☑ Rush ☐	Bacteria (only) Sample Condition Cool Intact Observed Temp. °C
Sampler - UPS - Bus - Other:	Corrected Temp. °C 4.4	☑ Yes ☑ Yes ☐ No ☐ No	TO	Thermometer ID #113 Correction Factor -0.5°C	TO 7/29/22 ☐ Yes ☐ Yes ☐ No ☐ No Corrected Temp. °C

FORM-006 R 3.2 10/07/21

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

ENSOLUM

APPENDIX F

C-141

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 Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nAPP2219337009
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Oxy USA Inc.	OGRID: 16696
Contact Name: Wade Dittrich	Contact Telephone: 575-390-2828
Contact email: wade_dittrich@oxy.com	Incident # nAPP2219337009
Contact mailing address: PO Box 4294, Houston, TX 77210	

Location of Release Source

Latitude 32.42112 Longitude -103.78030
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Lost Tank 4 Fed. #0009	Site Type: Well Pad
Date Release Discovered: 7/4/2022	API# 30-015-37953

Unit Letter	Section	Township	Range	County
G	4	22S	31E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls): 3	Volume Recovered (bbls): 0
☒ Produced Water	Volume Released (bbls): 12	Volume Recovered (bbls): 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Stuffing box on wellhead, packing failure.

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2219337009
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

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.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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.

Printed Name: Wade Dittrich
Title: Environmental Specialist

Signature: Wade Dittrich
Date: 12-27-22

email: wade_dittrich@oxy.com
Telephone: 575-390-2828

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2219337009
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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?	>100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2219337009
District RP	
Facility ID	
Application ID	

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.

Printed Name: Wade Dittrich

Title: Environmental Specialist

Signature: [signature]

Date: 12-29-22

email: wade_dittrich@oxy.com

Telephone: 575-390-2828

OCD Only

Received by: Jocelyn Harimon

Date: 12/30/2022

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2219337009
District RP	
Facility ID	
Application ID	

Closure

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 (electronic submittals in .pdf format are preferred) 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.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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.

Printed Name: Wade Dittrich Title: Environmental Specialist

Signature: [signature] Date: 12-29-22

email: wade_dittrich@oxy.com Telephone: 575-390-2828

OCD Only

Received by: Jocelyn Harimon Date: 12/30/2022

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Jennifer Nobui Date: 01/25/2023

Printed Name: Jennifer Nobui Title: Environmental Specialist A

CARDINAL Laboratories

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

October 17, 2022

BEAUX JENNINGS

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: LOST TANK 4 FED. # 0009

Enclosed are the results of analyses for samples received by the laboratory on 10/12/22 9:30.

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.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 1 1' (H224784-01)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.12	106	2.00	7.15	
Toluene*	<0.050	0.050	10/14/2022	ND	2.10	105	2.00	8.34	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.06	103	2.00	6.94	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.30	105	6.00	7.32	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1330**	16.0	10/13/2022	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/13/2022	ND	230	115	200	1.24	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	244	122	200	0.648	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *76.4 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *90.6 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 2 1' (H224784-02)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.12	106	2.00	7.15	
Toluene*	<0.050	0.050	10/14/2022	ND	2.10	105	2.00	8.34	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.06	103	2.00	6.94	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.30	105	6.00	7.32	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**608**	16.0	10/13/2022	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/13/2022	ND	230	115	200	1.24	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	244	122	200	0.648	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *83.6 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *99.8 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 3 1' (H224784-03)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.12	106	2.00	7.15	
Toluene*	<0.050	0.050	10/14/2022	ND	2.10	105	2.00	8.34	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.06	103	2.00	6.94	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.30	105	6.00	7.32	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

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	10/13/2022	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/13/2022	ND	230	115	200	1.24	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	244	122	200	0.648	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *86.4 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *101 %* *46.3-178*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 4 1' (H224784-04)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.12	106	2.00	7.15	
Toluene*	<0.050	0.050	10/14/2022	ND	2.10	105	2.00	8.34	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.06	103	2.00	6.94	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.30	105	6.00	7.32	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**896**	16.0	10/13/2022	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/13/2022	ND	230	115	200	1.24	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	244	122	200	0.648	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *88.3 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *104 %* *46.3-178*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 5 1' (H224784-05)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.12	106	2.00	7.15	
Toluene*	<0.050	0.050	10/14/2022	ND	2.10	105	2.00	8.34	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.06	103	2.00	6.94	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.30	105	6.00	7.32	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**592**	16.0	10/13/2022	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/13/2022	ND	230	115	200	1.24	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	244	122	200	0.648	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *87.8 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *102 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 6 1' (H224784-06)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.12	106	2.00	7.15	
Toluene*	<0.050	0.050	10/14/2022	ND	2.10	105	2.00	8.34	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.06	103	2.00	6.94	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.30	105	6.00	7.32	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1570**	16.0	10/13/2022	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/13/2022	ND	230	115	200	1.24	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	244	122	200	0.648	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *82.4 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *97.6 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 7 1' (H224784-07)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.12	106	2.00	7.15	
Toluene*	<0.050	0.050	10/14/2022	ND	2.10	105	2.00	8.34	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.06	103	2.00	6.94	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.30	105	6.00	7.32	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**784**	16.0	10/13/2022	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/13/2022	ND	230	115	200	1.24	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	244	122	200	0.648	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *98.6 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *117 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 8 1' (H224784-08)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2022	ND	2.12	106	2.00	7.15	
Toluene*	<0.050	0.050	10/15/2022	ND	2.10	105	2.00	8.34	
Ethylbenzene*	<0.050	0.050	10/15/2022	ND	2.06	103	2.00	6.94	
Total Xylenes*	<0.150	0.150	10/15/2022	ND	6.30	105	6.00	7.32	
Total BTEX	<0.300	0.300	10/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**3560**	16.0	10/13/2022	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/13/2022	ND	230	115	200	1.24	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	244	122	200	0.648	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *82.8 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *95.8 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 9 1' (H224784-09)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2022	ND	2.12	106	2.00	7.15	
Toluene*	<0.050	0.050	10/15/2022	ND	2.10	105	2.00	8.34	
Ethylbenzene*	<0.050	0.050	10/15/2022	ND	2.06	103	2.00	6.94	
Total Xylenes*	<0.150	0.150	10/15/2022	ND	6.30	105	6.00	7.32	
Total BTEX	<0.300	0.300	10/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**672**	16.0	10/13/2022	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/13/2022	ND	230	115	200	1.24	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	244	122	200	0.648	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *91.9 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *108 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 10 1' (H224784-10)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2022	ND	2.12	106	2.00	7.15	
Toluene*	<0.050	0.050	10/15/2022	ND	2.10	105	2.00	8.34	
Ethylbenzene*	<0.050	0.050	10/15/2022	ND	2.06	103	2.00	6.94	
Total Xylenes*	<0.150	0.150	10/15/2022	ND	6.30	105	6.00	7.32	
Total BTEX	<0.300	0.300	10/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

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	10/13/2022	ND	400	100	400	3.92	QR-03

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/13/2022	ND	230	115	200	1.24	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	244	122	200	0.648	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *96.1 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *113 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 11 1' (H224784-11)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2022	ND	2.12	106	2.00	7.15	
Toluene*	<0.050	0.050	10/15/2022	ND	2.10	105	2.00	8.34	
Ethylbenzene*	<0.050	0.050	10/15/2022	ND	2.06	103	2.00	6.94	
Total Xylenes*	<0.150	0.150	10/15/2022	ND	6.30	105	6.00	7.32	
Total BTEX	<0.300	0.300	10/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2400**	16.0	10/13/2022	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	10/13/2022	ND	230	115	200	1.24	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	244	122	200	0.648	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *78.1 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *91.2 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 12 1' (H224784-12)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2022	ND	2.12	106	2.00	7.15	
Toluene*	<0.050	0.050	10/15/2022	ND	2.10	105	2.00	8.34	
Ethylbenzene*	<0.050	0.050	10/15/2022	ND	2.06	103	2.00	6.94	
Total Xylenes*	<0.150	0.150	10/15/2022	ND	6.30	105	6.00	7.32	
Total BTEX	<0.300	0.300	10/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**4280**	16.0	10/13/2022	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	10/13/2022	ND	230	115	200	1.24	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	244	122	200	0.648	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *82.5 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *98.1 %* *46.3-178*

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CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 13 1' (H224784-13)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2022	ND	2.12	106	2.00	7.15	
Toluene*	<0.050	0.050	10/15/2022	ND	2.10	105	2.00	8.34	
Ethylbenzene*	<0.050	0.050	10/15/2022	ND	2.06	103	2.00	6.94	
Total Xylenes*	<0.150	0.150	10/15/2022	ND	6.30	105	6.00	7.32	
Total BTEX	<0.300	0.300	10/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**672**	16.0	10/13/2022	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	10/13/2022	ND	230	115	200	1.24	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	244	122	200	0.648	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *90.1 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *106 %* *46.3-178*

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Celey D. Keene, Lab Director/Quality Manager

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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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 14 1' (H224784-14)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.34	117	2.00	0.319	QM-07
Toluene*	<0.050	0.050	10/14/2022	ND	2.24	112	2.00	0.849	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.18	109	2.00	0.362	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.62	110	6.00	1.46	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *90.3 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**800**	16.0	10/13/2022	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	10/13/2022	ND	230	115	200	1.24	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	244	122	200	0.648	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *94.7 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *112 %* *46.3-178*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 15 1' (H224784-15)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.34	117	2.00	0.319	
Toluene*	<0.050	0.050	10/14/2022	ND	2.24	112	2.00	0.849	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.18	109	2.00	0.362	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.62	110	6.00	1.46	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *91.4 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	10/13/2022	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	10/13/2022	ND	230	115	200	1.24	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	244	122	200	0.648	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *92.0 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *109 %* *46.3-178*

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CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 16 1' (H224784-16)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.34	117	2.00	0.319	
Toluene*	<0.050	0.050	10/14/2022	ND	2.24	112	2.00	0.849	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.18	109	2.00	0.362	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.62	110	6.00	1.46	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *91.1 %* *69.9-140*

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	10/13/2022	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	10/13/2022	ND	230	115	200	1.24	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	244	122	200	0.648	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *88.6 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *105 %* *46.3-178*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 17 1' (H224784-17)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.34	117	2.00	0.319	
Toluene*	<0.050	0.050	10/14/2022	ND	2.24	112	2.00	0.849	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.18	109	2.00	0.362	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.62	110	6.00	1.46	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *91.2 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**640**	16.0	10/13/2022	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	10/13/2022	ND	206	103	200	2.48	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	211	105	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *102 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *108 %* *46.3-178*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 18 1' (H224784-18)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.34	117	2.00	0.319	
Toluene*	<0.050	0.050	10/14/2022	ND	2.24	112	2.00	0.849	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.18	109	2.00	0.362	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.62	110	6.00	1.46	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *89.9 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	10/13/2022	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	10/13/2022	ND	206	103	200	2.48	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	211	105	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *98.7 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *106 %* *46.3-178*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 19 1' (H224784-19)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.34	117	2.00	0.319	
Toluene*	<0.050	0.050	10/14/2022	ND	2.24	112	2.00	0.849	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.18	109	2.00	0.362	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.62	110	6.00	1.46	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *90.8 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**512**	16.0	10/13/2022	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	10/13/2022	ND	206	103	200	2.48	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	211	105	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *99.9 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *105 %* *46.3-178*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 20 1' (H224784-20)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.34	117	2.00	0.319	
Toluene*	<0.050	0.050	10/14/2022	ND	2.24	112	2.00	0.849	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.18	109	2.00	0.362	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.62	110	6.00	1.46	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *91.0 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**400**	16.0	10/13/2022	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	10/13/2022	ND	206	103	200	2.48	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	211	105	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *102 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *106 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 21 1' (H224784-21)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.34	117	2.00	0.319	
Toluene*	<0.050	0.050	10/14/2022	ND	2.24	112	2.00	0.849	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.18	109	2.00	0.362	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.62	110	6.00	1.46	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *93.4 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1040**	16.0	10/13/2022	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	10/13/2022	ND	206	103	200	2.48	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	211	105	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *87.6 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *92.1 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 22 1' (H224784-22)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.34	117	2.00	0.319	
Toluene*	<0.050	0.050	10/14/2022	ND	2.24	112	2.00	0.849	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.18	109	2.00	0.362	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.62	110	6.00	1.46	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *89.5 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**800**	16.0	10/13/2022	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	10/13/2022	ND	206	103	200	2.48	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	211	105	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *97.2 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *102 %* *46.3-178*

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Celey D. Keene

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 23 1' (H224784-23)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.34	117	2.00	0.319	
Toluene*	<0.050	0.050	10/14/2022	ND	2.24	112	2.00	0.849	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.18	109	2.00	0.362	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.62	110	6.00	1.46	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.5 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**576**	16.0	10/13/2022	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	10/13/2022	ND	206	103	200	2.48	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	211	105	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *91.8 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *95.1 %* *46.3-178*

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Analytical Results For:

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

Received:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 24 1' (H224784-24)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.34	117	2.00	0.319	
Toluene*	<0.050	0.050	10/14/2022	ND	2.24	112	2.00	0.849	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.18	109	2.00	0.362	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.62	110	6.00	1.46	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *90.4 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**896**	16.0	10/13/2022	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	10/13/2022	ND	206	103	200	2.48	
DRO >C10-C28*	**30.5**	10.0	10/13/2022	ND	211	105	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *99.3 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *103 %* *46.3-178*

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CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 25 1' (H224784-25)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.34	117	2.00	0.319	
Toluene*	<0.050	0.050	10/14/2022	ND	2.24	112	2.00	0.849	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.18	109	2.00	0.362	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.62	110	6.00	1.46	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.4 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	10/13/2022	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	10/13/2022	ND	206	103	200	2.48	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	211	105	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *102 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *105 %* *46.3-178*

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CARDINAL Laboratories

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Analytical Results For:

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

Received:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 26 1' (H224784-26)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2022	ND	2.34	117	2.00	0.319	
Toluene*	<0.050	0.050	10/15/2022	ND	2.24	112	2.00	0.849	
Ethylbenzene*	<0.050	0.050	10/15/2022	ND	2.18	109	2.00	0.362	
Total Xylenes*	<0.150	0.150	10/15/2022	ND	6.62	110	6.00	1.46	
Total BTEX	<0.300	0.300	10/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *89.1 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**640**	16.0	10/13/2022	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	10/13/2022	ND	206	103	200	2.48	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	211	105	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *105 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *109 %* *46.3-178*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 27 1' (H224784-27)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.34	117	2.00	0.319	
Toluene*	<0.050	0.050	10/14/2022	ND	2.24	112	2.00	0.849	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.18	109	2.00	0.362	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.62	110	6.00	1.46	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *89.2 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**992**	16.0	10/13/2022	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	10/13/2022	ND	206	103	200	2.48	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	211	105	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *100 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *103 %* *46.3-178*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 28 1' (H224784-28)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.34	117	2.00	0.319	
Toluene*	<0.050	0.050	10/14/2022	ND	2.24	112	2.00	0.849	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.18	109	2.00	0.362	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.62	110	6.00	1.46	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.8 %* *69.9-140*

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	10/13/2022	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	10/13/2022	ND	206	103	200	2.48	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	211	105	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *101 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *105 %* *46.3-178*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 29 1' (H224784-29)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.34	117	2.00	0.319	
Toluene*	<0.050	0.050	10/14/2022	ND	2.24	112	2.00	0.849	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.18	109	2.00	0.362	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.62	110	6.00	1.46	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *89.9 %* *69.9-140*

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	10/13/2022	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	10/13/2022	ND	206	103	200	2.48	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	211	105	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *100 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *105 %* *46.3-178*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: FS - 30 1' (H224784-30)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.34	117	2.00	0.319	
Toluene*	<0.050	0.050	10/14/2022	ND	2.24	112	2.00	0.849	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.18	109	2.00	0.362	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.62	110	6.00	1.46	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *90.1 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1560**	16.0	10/13/2022	ND	432	108	400	0.00	QM-07

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/13/2022	ND	206	103	200	2.48	
DRO >C10-C28*	**21.2**	10.0	10/13/2022	ND	211	105	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *104 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *111 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: NORTH - 2 1' (H224784-31)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.34	117	2.00	0.319	
Toluene*	<0.050	0.050	10/14/2022	ND	2.24	112	2.00	0.849	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.18	109	2.00	0.362	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.62	110	6.00	1.46	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *91.4 %* *69.9-140*

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	10/13/2022	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/13/2022	ND	206	103	200	2.48	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	211	105	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *81.4 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *84.6 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: EAST - 2 1' (H224784-32)

BTEX 8021B mg/kg **Analyzed By: JH**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.34	117	2.00	0.319	
Toluene*	<0.050	0.050	10/14/2022	ND	2.24	112	2.00	0.849	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.18	109	2.00	0.362	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.62	110	6.00	1.46	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *91.6 %* *69.9-140*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**560**	16.0	10/13/2022	ND	432	108	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/13/2022	ND	206	103	200	2.48	
DRO >C10-C28*	**54.8**	10.0	10/13/2022	ND	211	105	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *85.5 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *92.4 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: SOUTH - 2 1' (H224784-33)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2022	ND	2.34	117	2.00	0.319	
Toluene*	<0.050	0.050	10/14/2022	ND	2.24	112	2.00	0.849	
Ethylbenzene*	<0.050	0.050	10/14/2022	ND	2.18	109	2.00	0.362	
Total Xylenes*	<0.150	0.150	10/14/2022	ND	6.62	110	6.00	1.46	
Total BTEX	<0.300	0.300	10/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *90.1 %* *69.9-140*

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	10/13/2022	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/13/2022	ND	206	103	200	2.48	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	211	105	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *88.8 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *90.9 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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:	10/12/2022	Sampling Date:	10/11/2022
Reported:	10/17/2022	Sampling Type:	Soil
Project Name:	LOST TANK 4 FED. # 0009	Sampling Condition:	Cool & Intact
Project Number:	03B1417052	Sample Received By:	Tamara Oldaker
Project Location:	OXY - EDDY COUNTY		

Sample ID: WEST - 2 1' (H224784-34)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2022	ND	2.00	100	2.00	3.95	
Toluene*	<0.050	0.050	10/15/2022	ND	2.14	107	2.00	2.81	
Ethylbenzene*	<0.050	0.050	10/15/2022	ND	2.02	101	2.00	4.35	
Total Xylenes*	<0.150	0.150	10/15/2022	ND	6.04	101	6.00	4.15	
Total BTEX	<0.300	0.300	10/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.8 %* *69.9-140*

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	10/13/2022	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/13/2022	ND	206	103	200	2.48	
DRO >C10-C28*	<10.0	10.0	10/13/2022	ND	211	105	200	1.59	
EXT DRO >C28-C36	<10.0	10.0	10/13/2022	ND					

Surrogate: 1-Chlorooctane *94.4 %* *45.3-161*

Surrogate: 1-Chlorooctadecane *92.5 %* *46.3-178*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Ensolum, LLC
Project Manager:	Beaux Jennings
Address:	601 N. Marienfeld St. STE 400
City:	Midland **State:** TX **Zip:** 79701
Phone #:	210-219-8858 **Fax #:**
Project #:	03B1417052 **Project Owner:**
Project Name:	Lost Tank 4 Fed. #0009
Project Location:	Eddy County
Sampler Name:	Samantha MacKenzie

BILL TO

P.O. #:	
Company:	Oxy USA, Inc.
Attn:	Wade Dittrich
Address:	
City:	
State:	**Zip:**
Phone #:	575-390-2828
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	TPH 8015 M	BTEX 8021 B	Chlorides 4500
H224784 1	FS- 1	1'	C	1			X					X		10/11/22	1434	X	X	X
2	FS- 2	1'	C	1			X					X		10/11/22	1435	X	X	X
3	FS- 3	1'	C	1			X					X		10/11/22	1436	X	X	X
4	FS- 4	1'	C	1			X					X		10/11/22	1437	X	X	X
5	FS- 5	1'	C	1			X					X		10/11/22	1438	X	X	X
6	FS- 6	1'	C	1			X					X		10/11/22	1439	X	X	X
7	FS- 7	1'	C	1			X					X		10/11/22	1440	X	X	X
8	FS- 8	1'	C	1			X					X		10/11/22	1441	X	X	X
9	FS- 9	1'	C	1			X					X		10/11/22	1442	X	X	X
10	FS- 10	1'	C	1			X					X		10/11/22	1443	X	X	X

NFE 10/11/22 Sam

Relinquished By:	**Date:** 10/11/22	**Received By:**	
	Time: 1600		
Relinquished By:	**Date:** 10/12/22	**Received By:**	
	Time: 0930		

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

All Results are emailed. Please provide Email address:

BJennings@ensolum.com

REMARKS:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:

Observed Temp. °C 0.6
Corrected Temp. °C 0.0

Sample Condition: Cool ☑ Yes ☐ No / Intact ☑ Yes ☐ No

CHECKED BY: (Initials) T.O.

Turnaround Time: Standard ☒ Rush ☐

Thermometer ID #113
Correction Factor -0.5°C T.O. 10/12/22

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No / Intact ☐ Yes ☐ No

Observed Temp. °C
Corrected Temp. °C

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

FORM-006 R 3.2 10/07/21

QEC Quality Environmental Contractors 800-255-3950 • 304-255-39

CUSTODY SEAL DATE 10/12/22 SIGNATURE

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Ensolum, LLC
Project Manager:	Beaux Jennings
Address:	601 N. Marienfeld St. STE 400
City:	Midland **State:** TX **Zip:** 79701
Phone #:	210-219-8858 **Fax #:**
Project #:	03B1417052 **Project Owner:**
Project Name:	Lost Tank 4 Fed. #0009
Project Location:	Eddy County
Sampler Name:	Samantha MacKenzie

BILL TO

P.O. #:	
Company:	Oxy USA, Inc.
Attn:	Wade Dittrich
Address:	
City:	
State:	**Zip:**
Phone #:	575-390-2828
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	TPH 8015 M	BTEX 8021 B	Chlorides 4500
H224784																		
11	FS- 11	1'	C	1			X					X		10/11/22	1444	X	X	X
12	FS- 12	1'	C	1			X					X		10/11/22	1445	X	X	X
13	FS- 13	1'	C	1			X					X		10/11/22	1446	X	X	X
14	FS- 14	1'	C	1			X					X		10/11/22	1447	X	X	X
15	FS- 15	1'	C	1			X					X		10/11/22	1448	X	X	X
16	FS- 16	1'	C	1			X					X		10/11/22	1449	X	X	X
17	FS- 17	1'	C	1			X					X		10/11/22	1450	X	X	X
18	FS- 18	1'	C	1			X					X		10/11/22	1451	X	X	X
19	FS- 19	1'	C	1			X					X		10/11/22	1452	X	X	X
20	FS- 20	1'	C	1			X					X		10/11/22	1453	X	X	X

UFE
10/11/22
Sam

Relinquished By:	**Date:** 10/11/22 **Time:** 1600	**Received By:**	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	**Date:** 10/12/22 **Time:** 0930	**Received By:**	All Results are emailed. Please provide Email address: BJennings@ensolum.com
			REMARKS:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 0.6 Corrected Temp. °C 0.0	Sample Condition Cool: ☐ Yes ☐ No Intact: ☑ Yes ☐ No	**CHECKED BY: (Initials)** T.O.	Turnaround Time: Standard ☒ Rush ☐ Thermometer ID #113 Correction Factor -0.5°C T.O. 10/12/22

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No; Observed Temp. °C; Corrected Temp. °C

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

FORM-006 R 3.2 10/07/21

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Ensolum, LLC
Project Manager:	Beaux Jennings
Address:	601 N. Marienfeld St. STE 400
City:	Midland **State:** TX **Zip:** 79701
Phone #:	210-219-8858 **Fax #:**
Project #:	03B1417052 **Project Owner:**
Project Name:	Lost Tank 4 Fed. #0009
Project Location:	Eddy County
Sampler Name:	Samantha MacKenzie

BILL TO

P.O. #:	
Company:	Oxy USA, Inc.
Attn:	Wade Dittrich
Address:	
City:	
State:	**Zip:**
Phone #:	575-390-2828
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	TPH 8015 M	BTEX 8021 B	Chlorides 4500
H224784																		
21	FS- 21	1'	C	1			X					X		10/11/22	1454	X	X	X
22	FS- 22	1'	C	1			X					X		10/11/22	1455	X	X	X
23	FS- 23	1'	C	1			X					X		10/11/22	1456	X	X	X
24	FS- 24	1'	C	1			X					X		10/11/22	1457	X	X	X
25	FS- 25	1'	C	1			X					X		10/11/22	1458	X	X	X
26	FS- 26	1'	C	1			X					X		10/11/22	1459	X	X	X
27	FS- 27	1'	C	1			X					X		10/11/22	1500	X	X	X
28	FS- 28	1'	C	1			X					X		10/11/22	1501	X	X	X
29	FS- 29	1'	C	1			X					X		10/11/22	1502	X	X	X
30	FS- 30	1'	C	1			X					X		10/11/22	1503	X	X	X

NFE
10/11/22
Sam

Relinquished By:	**Date:** 10/11/22	**Received By:**	
	Time: 1600		
Relinquished By:	**Date:** 10/12/22	**Received By:**	
	Time: 0430		

Delivered By: (Circle One) Sampler - UPS - Bus - Other:

Observed Temp. °C 0.6
Corrected Temp. °C 0.0

Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No

CHECKED BY: (Initials) T.O.

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

All Results are emailed. Please provide Email address: BJennings@ensolum.com

REMARKS:

Turnaround Time: Standard ☒ Rush ☐

Thermometer ID #113
Correction Factor -0.5°C T.O. 10/12/22

Bacteria (only) Sample Condition Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

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

FORM-006 R 3.2 10/07/21

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Ensolum, LLC
Project Manager:	Beaux Jennings
Address:	601 N. Marienfeld St. STE 400
City:	Midland **State:** TX **Zip:** 79701
Phone #:	210-219-8858 **Fax #:**
Project #:	03B1417052 **Project Owner:**
Project Name:	Lost Tank 4 Fed. #0009
Project Location:	Eddy County
Sampler Name:	Samantha MacKenzie

BILL TO

P.O. #:	
Company:	Oxy USA, Inc.
Attn:	Wade Dittrich
Address:	
City:	
State:	**Zip:**
Phone #:	575-390-2828
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	TPH 8015 M	BTEX 8021 B	Chlorides 4500
H224784																		
31	North-2	1'	C	1			X					X		10/11/22	1504	X	X	X
32	East-2	1'	C	1			X					X		10/11/22	1505	X	X	X
33	South-2	1'	C	1			X					X		10/11/22	1506	X	X	X
34	West-2	1'	C	1			X					X		10/11/22	1507	X	X	X

NFE 10/11/22 Sam

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, 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:	**Date:** 10/11/22	**Received By:**	**Verbal Result:** ☐ Yes ☐ No **Add'l Phone #:**
	Time: 1600		**All Results are emailed. Please provide Email address:** BJennings@ensolum.com
Relinquished By:	**Date:** 10/12/22	**Received By:** Tamara Oldaker	**REMARKS:**
	Time: 0930		
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	**Observed Temp. °C** 0.6 **Corrected Temp. °C** 0.0	**Sample Condition** Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	**CHECKED BY: (Initials)** T.O.

Turnaround Time: Standard ☒ Rush ☐ **Thermometer ID** #113 **Correction Factor** -0.5°C T.O. 10/12/22

Bacteria (only) Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No **Observed Temp. °C** **Corrected Temp. °C**

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

FORM-006 R 3.2 10/07/21

OSE POD Locations Map

1/25/2023, 2:36:23 PM

Recently Edited PODs

OSE District Boundary

SiteBoundaries

1:2,257

0 0.02 0.04 0.09 mi

0 0.04 0.07 0.15 km

Maxar, Microsoft, Esri, HERE, iPC, U.S. Department of Energy Office of Legacy Management, Esri, HERE, Garmin, iPC

Web Generated Map
Map is generated by web users.

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER
ROSWELL

Mike A. Hamman, P.E.
State Engineer

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

November 23, 2022

Oxy USA Inc.
P.O. Box 4294
Houston, TX 77210

RE: Well Plugging Plan of Operations for well no. C-4686-POD1

Greetings:

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

Well Plugging Plan of Operations form (WD-08) has been updated. Current form can be found on the OSE website at the following link https://www.ose.state.nm.us/Statewide/wdForms.php.

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

Sincerely,

K. Parekh

Kashyap Parekh
Water Resources Manager I

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER
ROSWELL
1900 West Second St.
Roswell, New Mexico 88201
Phone: (575) 622-6521
Fax: (575) 623- 8559

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

Permittee: Oxy USA Inc.
NMOSE Permit Number: C-4686-POD1

NMOSE File	Casing diameter (inches)	Well depth (feet bgl)	Approximate static water level (feet bgl)	Latitude	Longitude
C-4686-POD1	Soil Boring	110.0	Unknown	32° 25' 16.032"	103° 46' 49.0794''

Specific Plugging Conditions of Approval for Well located in Eddy County.

1. Water well drilling and well drilling activities, including well plugging, are regulated under 19.27.4 NMAC, which requires any person engaged in the business of well drilling within New Mexico to obtain a Well Driller License issued by the New Mexico Office of the State Engineer (NMOSE). Therefore, the firm of a New Mexico licensed Well Driller shall perform the well plugging.

2. The total Theoretical volume of sealant required for abandonment is approximately 100 gallons. Total minimum volume of necessary sealant shall be calculated upon sounding the actual pluggable depth of well, which is estimated at 110 feet.

3. A Type I/II Portland cement mixed with 5.2 to 6.0 gallons of fresh water per 94-lb sack of cement is approved for the plugging the well.

4. Sealant shall be placed by pumping through a tremie pipe extended to near well bottom and kept below top of the slurry column as the well is plugged from bottom-upwards in a manner that displaces the standing water column upwards from below. Tremie pipe may be pulled as necessary to retain minimal submergence in the advancing column of sealant.

5. Should cement "shrinks-back" occur in the well, use of a tremie for topping off is required for cement placement deeper than 20 feet below land surface or if water is present in the casing. The approved sealant for topping off is identified in condition 3. of these Specific Conditions of Approval.

6. Any open annulus encountered surrounding the casing shall also be sealed by the placement of the approved sealant. When plugging shallow wells with no construction or environmental concerns, and if the well record on a well to be plugged shows a proper 20-foot annular seal, a plugging plan can propose the use of clean fill material to a nominal 30 feet bgs, then placing an OSE approved sealant to surface. Lacking that information, we would require an excavation of at least 2-feet which shall then be filled in its entirety with sealant to surface.

7. Should the NMED, or another regulatory agency sharing jurisdiction of the project authorize, or by regulation require a more stringent well plugging procedure than herein acknowledged, the more-stringent procedure should be followed. This, in part, includes provisions regarding pre-authorization to proceed, contaminant remediation, inspection, pulling/perforating of casing, or prohibition of free discharge of any fluid from the borehole during or related to the plugging process.

8. NMOSE witnessing of the plugging of the shallow well will not be required.

9. Any deviation from this plan must obtain an approved variance from this office prior to implementation.

10. A Well Plugging Record itemizing actual abandonment process and materials used shall be filed with the State Engineer within 30 days after completion of well plugging. For the plugging record, please resurvey coordinate location for well and note coordinate system for GPS unit. Please attach a copy of these plugging conditions.

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

Witness my hand and seal this 23rd day of November 2022

Mike A. Hamman, P.E. State Engineer

By: K.Parekh

Kashyap Parekh
Water Resources Manager I

WELL PLUGGING PLAN OF OPERATIONS

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

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

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

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

Existing Office of the State Engineer POD Number (Well Number) for well to be plugged: POD1 (SB-1) C-4686-POD1

Name of well owner: Oxy USA Inc.

Mailing address: PO Box 4294 County: Harris

City: Houston State: TX Zip code: 77210

Phone number: 575-390-2828 E-mail: wade_dittrich@oxy.com

III. WELL DRILLER INFORMATION:

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

New Mexico Well Driller License No.: WD-1184 Expiration Date: October 31, 2023

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

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

1) GPS Well Location: Latitude: 32 deg, 25 min, 16.032 sec
Longitude: -103 deg, 46 min, 49.0794 sec, NAD 83

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

Investigation soil boring to determine groundwater level.

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

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

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

6) Depth of the well: 110 feet

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7) Inside diameter of innermost casing: N/A inches.

8) Casing material: N/A

9) The well was constructed with:

☐ an open-hole production interval, state the open interval: _____

☐ a well screen or perforated pipe, state the screened interval(s): _____

10) What annular interval surrounding the artesian casing of this well is cement-grouted? N/A

11) Was the well built with surface casing? No If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? N/A If yes, please describe:

12) Has all pumping equipment and associated piping been removed from the well? N/A If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.

V. DESCRIPTION OF PLANNED WELL PLUGGING:

☐ **If plugging method differs between multiple wells on same site, a separate form must be completed for each method.**

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

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

1) Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well:

The soil boring will be plugged tremie from bottom to a slurry of Portland TYPE I/II Neat cement in lifts

2) Will well head be cut-off below land surface after plugging? N/A

VI. PLUGGING AND SEALING MATERIALS:

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

1) For plugging intervals that employ cement grout, complete and attach Table A.

2) For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.

3) Theoretical volume of grout required to plug the well to land surface: 100

4) Type of Cement proposed: Type I/II Neat Cement

5) Proposed cement grout mix: <6.0 gallons of water per 94 pound sack of Portland cement.

6) Will the grout be: _____ batch-mixed and delivered to the site

X mixed on site

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

N/A

8) Additional notes and calculations:

N/A

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

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

VIII. SIGNATURE:

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

Signature of Applicant — Date: 10/19/2022

IX. ACTION OF THE STATE ENGINEER:

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This Well Plugging Plan of Operations is:

X Approved subject to the attached conditions.

_____ Not approved for the reasons provided on the attached letter.

Witness my hand and official seal this 23rd day of November, 2022

Mike A. Hamman

~~John R. D'Antonio Jr~~. P.E., New Mexico State Engineer

By: K. Parekh

KASHYAP PAREKH

W.R.M.I

WD-08 Well Plugging Plan
Version: July 31, 2019
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TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

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

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

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

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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

CONDITIONS

Action 171246

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 171246
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved. Please implement 19.15.29.13 NMAC when completing P&A.	1/25/2023