ENSOLUM

REVISED CLOSURE REPORT

Property:

Mesa Verde 8 Fed #2H

Lea County, New Mexico
32.242698 N, 103.722653 W
NMOCD Incident ID: nOY1719148989
RP No.: 1RP-4751
API No.: 30-025-37914

December 1, 2023
Ensolum Project No. 03B1417051

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

REVISED CLOSURE REPORT

Mesa Verde 8 Fed #2H

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32.242698 N, 103.722653 W
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Ensolum Project No. 03B1417051

1.0 INTRODUCTION

1.1 Executive Summary

- On June 22, 2017, a release of produced water was reported from a 3" black poly water transfer line that was cut by a road maintainer at the Mesa Verde 8 Fed #2H, hereinafter referred to as the "Site". Approximately 10 barrels (bbls) of produced water were release onto the caliche road and impacted an area approximately 1,200 feet long by 10 to 40 feet wide. The line was repaired and approximately two bbls of produced water were recovered by a vacuum truck. In 2022, Oxy USA Inc. (Oxy) contracted Ensolum, LLC (Ensolum) to perform sampling of the approximate spill location at the Site.

- On August 11, 2022, Ensolum arrived on-Site and collected a total of 24 composite soil samples (SP-1 through SP-24) from locations within the impacted area. The composite soil samples were collected from depths ranging from 0-0.25 feet below ground surface (bgs).

- Due to the unknown depth to groundwater in the 0.5-mile vicinity, a depth to water soil boring (SB-1) was installed on September 1, 2022 by Ensolum personnel. The soil boring was installed approximately 0.2-miles northwest of 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.

- Based on the laboratory analytical results, no excavation or remediation was required at the time.

- 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.

- On October 19, 2022 a Closure Report was submitted to the New Mexico ENMRD OCD for approval.

- On February 22, 2023 the New Mexico ENMRD OCD rejected the Closure Report. Steps were subsequently taken by Oxy to address the requirements needed for closure.

- Based on the request from the New Mexico EMRD OCD, composite samples SP-4 through SP-9, SP-12, SP-14, SP-16, SP-17, SP-19, and SP-23 were collected from depths ranging from 0.25-0.50 feet bgs.

- The final excavation areas reached a maximum depth of 0.50 feet bgs.
- Based on the laboratory analytical results, the composite soil samples 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.

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:	Mesa Verde 8 Fed #2H
Location:	32.242698 N, 103.722653 W Lea County, New Mexico
Property:	State of New Mexico
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
≤ 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

3.0 SOIL REMEDIATION ACTIVITIES

On June 22, 2017, a release of produced water was reported from a 3" black poly water transfer line that was cut by a road maintainer at the Site. Approximately 10 bbls of produced water were release onto the caliche road and impacted an area approximately 1,200 feet long by 10 to 40 feet wide. The line was repaired and approximately two bbls of produced water were recovered by a vacuum truck. In 2022, Oxy contracted Ensolum to perform sampling of the approximate spill location at the Site.

On August 11, 2022, Ensolum arrived on-Site and collected a total of 24 composite soil samples (SP-1 through SP-24) from locations within the impacted area. The composite soil samples were collected from depths ranging from 0-0.25 feet bgs.

Due to the unknown depth to groundwater in the 0.5-mile vicinity, a depth to water soil boring (SB-1) was installed on September 1, 2022 by Ensolum personnel. The soil boring was installed approximately 0.3-miles northwest of 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.

Based on the laboratory analytical data, no excavation or remediation was required at that time.

On October 19, 2022 a Closure Report was submitted to the New Mexico ENMRD OCD for approval. On February 22, 2023 the New Mexico ENMRD OCD rejected the Closure Report. Steps were subsequently taken by Oxy to address the requirements needed for closure.

On September 14, 2023, subsequent to excavation activities, Ensolum arrived on-Site and collected a total of 12 composite soil samples (SP-4 through SP-9, SP-12, SP-14, SP-16, SP-17, SP-19, and SP-23) from locations within the impacted area. The composite soil samples were collected from depths ranging from 0.25-0.50 feet bgs.

Based on the laboratory analytical data, no additional excavation or remediation was required. The total depth of the excavation areas was 0.50 feet bgs.

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

4.0 SOIL SAMPLING PROGRAM

Ensolum's composite soil sampling program included the collection of 32 composite soil samples from 24 locations within the impacted area (SP-1 through SP-24). The composite soil samples were collected from depths of 0-0.25 feet bgs and/or 0.25-0.50 feet 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 final composite soil samples collected from the impacted area (SP-1 through SP-24) to the applicable NMOCD Closure Criteria.

- Laboratory analytical results indicate benzene concentrations for the final 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 final composite soil samples are below the laboratory SDLs, which are below the applicable NMOCD Closure Criteria of 50 mg/kg.

- Laboratory analytical results indicate combined TPH GRO/DRO/MRO concentrations for the final composite soil samples are below the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 100 mg/kg for groundwater ≤50 feet.

- Laboratory analytical results indicate chloride concentrations for the final composite soil samples are below the applicable NMOCD Closure Criteria of 600 mg/kg for groundwater ≤50 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 road and does not require reclamation or revegetation at this time.

8.0 FINDINGS AND RECOMMENDATION

- On June 22, 2017, a release of produced water was reported from a 3" black poly water transfer line that was cut by a road maintainer at the Site. Approximately 10 bbls of produced water were release onto the caliche road and impacted an area approximately 1,200 feet long by 10 to 40 feet wide. The line was repaired and approximately two bbls of produced water were recovered by a vacuum truck. In 2022, Oxy contracted Ensolum to perform sampling of the approximate spill location at the Site.

- On August 11, 2022, Ensolum arrived on-Site and collected a total of 24 composite soil samples (SP-1 through SP-24) from locations within the impacted area. The composite soil samples were collected from depths ranging from 0-0.25 feet bgs.

- Due to the unknown depth to groundwater in the 0.5-mile vicinity, a depth to water soil boring (SB-1) was installed on September 1, 2022 by Ensolum personnel. The soil boring was installed approximately 0.3-miles northwest of 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.

- Based on the laboratory analytical data, no excavation or remediation was required at the time.

- On October 19, 2022 a Closure Report was submitted to the New Mexico ENMRD OCD for approval.

- On February 22, 2023 the New Mexico ENMRD OCD rejected the Closure Report. Steps were subsequently taken by Oxy to address the requirements needed for closure.

- Based on the request from the New Mexico EMRD OCD, composite samples SP-4 through SP-9, SP-12, SP-14, SP-16, SP-17, SP-19, and SP-23 were collected from depths ranging from 0.25-0.50 feet bgs.

- The final excavation areas reached a maximum depth of 0.50 feet 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.

- Based on the laboratory analytical results, the composite soil samples collected from the impacted area did not exhibit benzene, BTEX, TPH GRO/DRO/MRO or chloride concentrations above the applicable NMOCD Closure Criteria.

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.

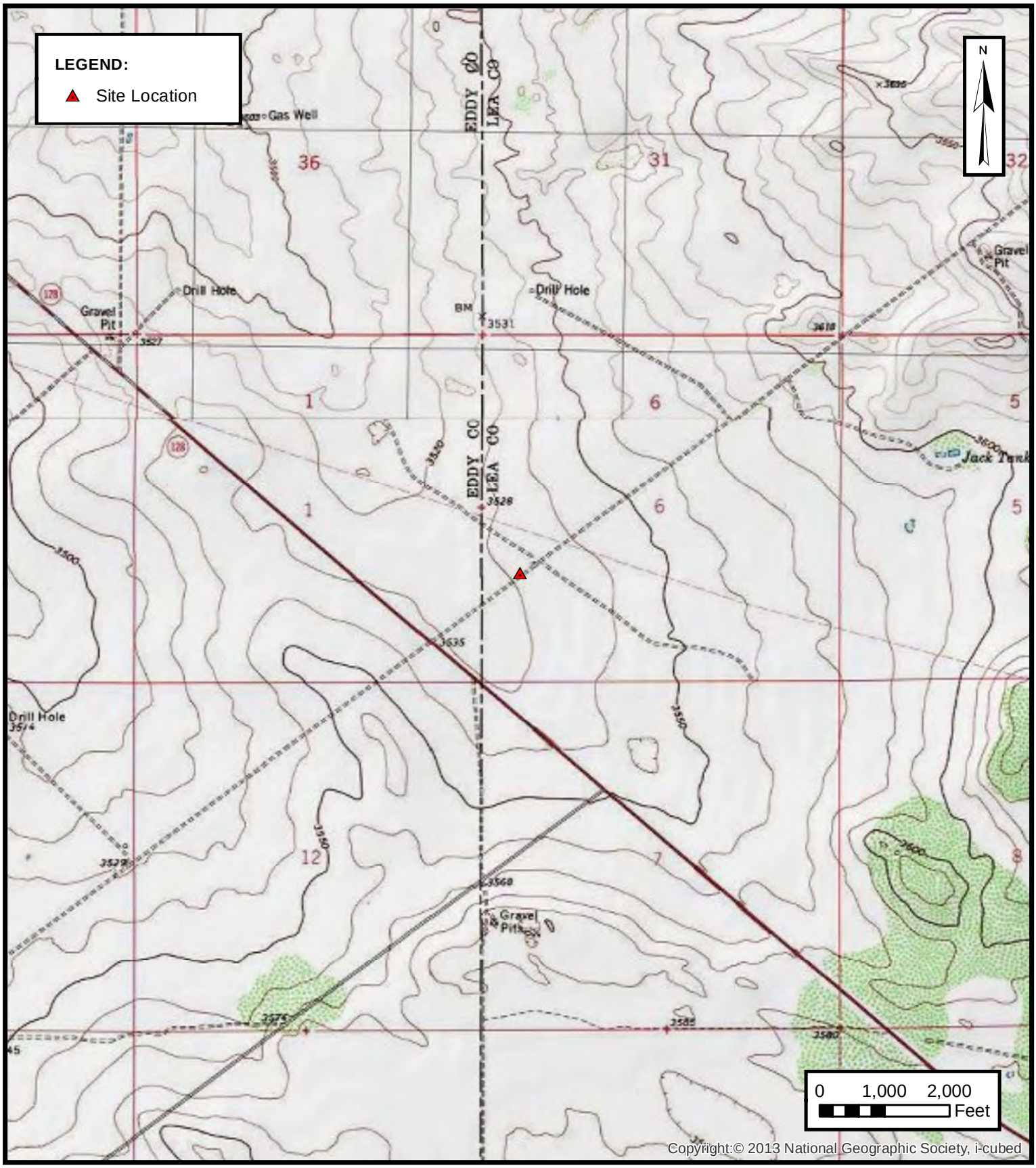
9.3 Reliance

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.

ENSOLUM

APPENDIX A

Figures



ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

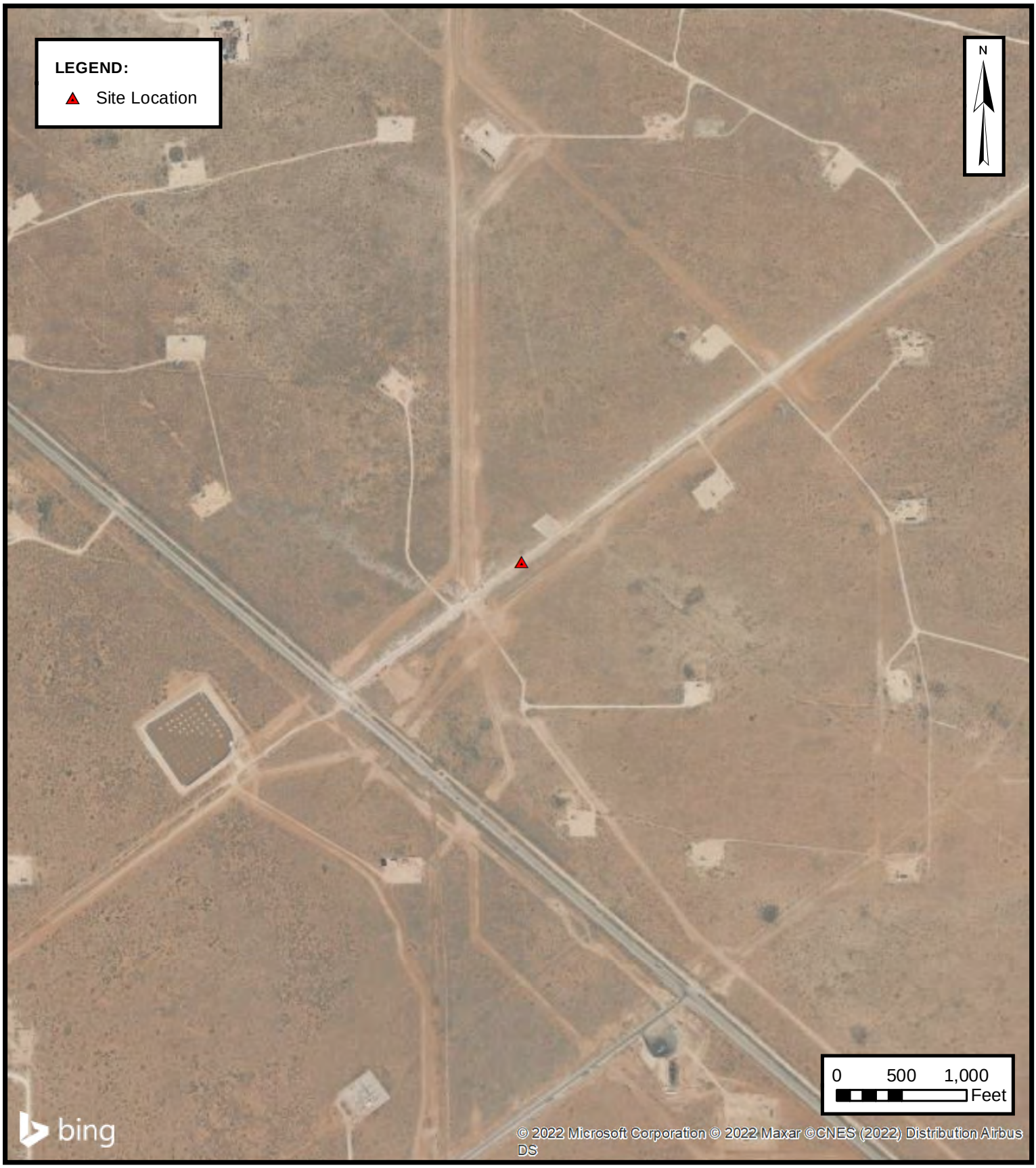
TOPOGRAPHIC MAP

OXY USA INC.
MESA VERDE 8 FED. 2H
Lea County, New Mexico
32.242698° N, 104.722653° W

PROJECT NUMBER: 03B1417051

FIGURE

1



ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

SITE VICINITY MAP

OXY USA INC.
MESA VERDE 8 FED. 2H
Lea County, New Mexico
32.242698° N, 104.722653° W

PROJECT NUMBER: 03B1417051

FIGURE
2

LEGEND:

- Composite Soil Sample
- Extent of Impact
- Soil Sample Boundary

ENSOLUM
Environmental & Hydrogeologic Consultants

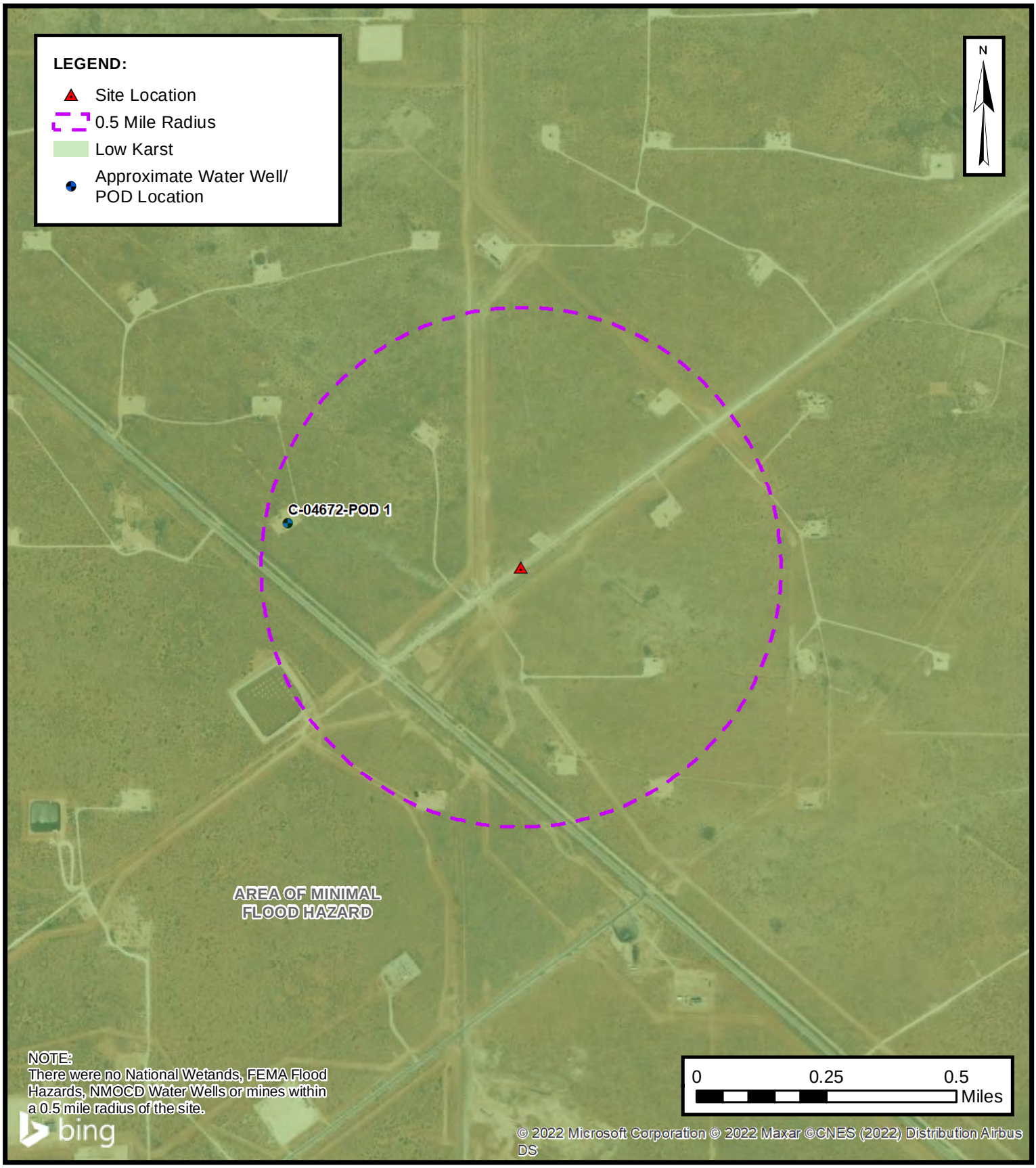
SITE MAP

OXY USA INC.
MESA VERDE 8 FED. 2H

Lea County, New Mexico
32.242698° N, 103.722653° W

FIGURE
3

PROJECT NUMBER: 03B1417051



ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

CLOSURE CRITERIA MAP

OXY USA INC.
MESA VERDE 8 FED. 2H
Lea County, New Mexico
32.242698° N, 103.722653° W

PROJECT NUMBER: 03B1417051

FIGURE
4

ENSOLUM

APPENDIX B

Supporting Documentation

Beaux Jennings

From: Beaux Jennings
Sent: Monday, August 8, 2022 4:33 PM
To: OCD.Enviro@state.nm.us
Subject: Mesa Verde 8 Fed. #002H

Good Afternoon,

On behalf of Oxy USA Inc, Ensolum, LLC would like to provide notification for sampling activities that will be conducted at the Mesa Verde 8 Fed. #002H (Incident ID: NOY1719148989) on Thursday, August 11th at 9am. 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

Beaux Jennings

From: Dittrich, John W <Wade_Dittrich@oxy.com>
Sent: Wednesday, February 22, 2023 1:20 PM
To: Beaux Jennings
Subject: FW: The Oil Conservation Division (OCD) has rejected the application, Application ID: 151889

[**EXTERNAL EMAIL**]

Rejected-Mesa Verde 8 Federal #2H-6/22/17

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Wednesday, February 22, 2023 10:10 AM
To: Dittrich, John W <Wade_Dittrich@oxy.com>
Subject: [EXTERNAL] The Oil Conservation Division (OCD) has rejected the application, Application ID: 151889

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

To whom it may concern (c/o Wade Dittrich for OXY USA INC),

The OCD has rejected the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nOY1719148989,
for the following reasons:

- **Horizontal and vertical delineation submitted was incomplete and did not meet the requirements of 19.15.29.11 NMAC. The values for determination of horizontal impact are derived by either approved "background" values or Table I Closure Criteria for releases where groundwater is at a depth of 50 feet or less. This is especially important for "on-pad" releases to ensure the release did not extend to the "off-pad"/pasture area. A visual footprint on the surface is not sufficient to assess the horizontal extent of the release. Laboratory data must be provided as evidence of delineation efforts. Any sample exceeding approved "background" values or Table I Closure Criteria for releases where groundwater is at a depth of 50 feet or less requires additional samples for horizontal delineation.**
- **Spill Rule Procedures September 6, 2019 VI. ON-SITE vs. OFF-SITE REMEDIATION: c. The difference between on- and off-site releases is when the reclamation and restoration must occur. Off-site releases must be reclaimed and restored immediately. On-site reclamation and restoration can wait until operations have ceased, but still must be done.**
- **All off pad areas must contain a minimum of 4 feet non-waste containing uncontaminated, earthen material with chloride concentrations less than 600 mg/kg. In the pasture area, 4 feet below the ground surface, soil contamination limits revert to Table 1 "Closure Criteria for Soils Impacted by a Release"**
- **Submit a report via the OCD permitting portal by 5/26/2023.**

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 151889.
Please review and make the required correction(s) prior to resubmitting.
If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

Thank you,
Ashley Maxwell
Projects Environmental Specialist - A
505-635-5000
Ashley.Maxwell@emnrd.nm.gov

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Beaux Jennings

From: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Sent: Tuesday, September 12, 2023 2:27 PM
To: Beaux Jennings
Cc: Bratcher, Michael, EMNRD; Maxwell, Ashley, EMNRD
Subject: RE: [EXTERNAL] Mesa Verde 8 Fed. #002H (Incident ID: NOY1719148989)

[**EXTERNAL EMAIL**]

Hi Beaux,

The OCD has received your notification. Notification requirements are **two full business days**, per rule. You may proceed on your schedule. This, and all correspondence, should be included in the closure report to ensure inclusion in the project file.

Thank you,

Shelly

Shelly Wells * Environmental Specialist-Advanced
Environmental Bureau
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive|Santa Fe, NM 87505
(505)469-7520|Shelly.Wells@emnrd.nm.gov
http://www.emnrd.state.nm.us/OCD/

From: Beaux Jennings <bjennings@ensolum.com>
Sent: Tuesday, September 12, 2023 12:45 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] Mesa Verde 8 Fed. #002H (Incident ID: NOY1719148989)

Good Afternoon,

On behalf of Oxy USA Inc, Ensolum, LLC would like to provide notification for sampling activities that will be conducted at the Mesa Verde 8 Fed. #002H (Incident ID: NOY1719148989) on Thursday, September 14th. 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

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. SUNDANCE 1 FEDERAL #007

2. Name of Operator Oxy USA Inc.

9. API Well No. 30-015-30061

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 11, Township 24S, 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 Sundance 1 Federal 7 (GPS Coordinates 32.456789, -103.789456) (Incident Numbers NOY1719148989, nAPP2215134499 & nAPP2215132849). 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 9-21-22 09/14/2022

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)
NMNM69369

September 22, 2022

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

Re: SUNDANCE 1 FEDERAL 7
30-015-30061
Section 11, T24S-R31E
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 110 feet below ground surface via a truck-mounted 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

Mike A. Hamman, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 734614
File Nbr: C 04672

Sep. 22, 2022

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

Greetings:

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

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

* If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.

* If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.

* The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.

* This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us.

Sincerely,

Rodolfo Chavez
(575)622-6521

Enclosure

explore

Mike A. Hamman, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 734614
File Nbr: C 04672

Sep. 22, 2022

BEAUX JENNINGS
ENSOLUM LLC
601 N. MARIENFELD ST SUITE 400
MIDLAND, TX 79701

Greetings:

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

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

* If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.

* If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.

* The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.

* This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us.

Sincerely,

Rodolfo Chavez
(575)622-6521

Enclosure

explore

File No. C-04672

NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT

(check applicable box):

For fees, see State Engineer website: http://www.ose.state.nm.us/

Purpose:	☐ Pollution Control And/Or Recovery	☐ Ground Source Heat Pump
☐ Exploratory Well (Pump test)	☐ Construction Site/Public Works Dewatering	☒ Other(Describe): Investigation Soil Boring
☐ Monitoring Well	☐ Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

☐ Temporary Request - Requested Start Date: 8/22/22 Requested End Date: 9/22/22

Plugging Plan of Operations Submitted? ☒ Yes ☐ No

1. APPLICANT(S)

Name: Oxy USA Inc.	Name: Ensolum, LLC
Contact or Agent: check here if Agent ☒ Mr. Wade Dittrich	Contact or Agent: check here if Agent ☐ Mr. Beaux Jennings
Mailing Address: PO Box 4294	Mailing Address: 601 N. Marienfeld Street, Ste 400
City: Houston	City: Midland
State: TX Zip Code: 77210	State: TX Zip Code: 79701
Phone: 575-390-2828 ☐ Home ☒ Cell Phone (Work):	Phone: 210-219-8858 ☐ Home ☒ Cell Phone (Work):
E-mail (optional): wade_dittrich@oxy.com	E-mail (optional): bjennings@ensolum.com

RECEIVED OCD AUG 24 2022 PM 1:17

FOR OSE INTERNAL USE Application for Permit, Form WR-07, Rev 11/17/16

File No.: C-04672	Trn. No.: 734614	Receipt No.: 2-44969
Trans Description (optional):		
Sub-Basin: CUB	PCW/LOG Due Date: 9/22/23	

2. WELL(S) Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).
District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

☐ NM State Plane (NAD83) (Feet)
☐ NM West Zone
☐ NM East Zone
☐ NM Central Zone

☐ UTM (NAD83) (Meters)
☐ Zone 12N
☐ Zone 13N

■ Lat/Long (WGS84) (to the nearest 1/10th of second)

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (*Quarters or Halves, Section, Township, Range*) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
SB-1 C-04672 POD1	-103.728732	32.244866	NW 1/4 of SE 1/4 of S1, T24S, R31E

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)
Additional well descriptions are attached: ☐ Yes ■ No **If yes, how many** _____

Other description relating well to common landmarks, streets, or other:
Soil boring will be installed approximately 100' southeast of on-site oil and gas well.

Well is on land owned by: BLM

Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. **Attached?** ☐ Yes ■ No
If yes, how many_____

Approximate depth of well (feet): 110	Outside diameter of well casing (inches): 6
Driller Name: West Texas Water Well Service - Ronny Keith	Driller License Number: WD-1184

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

The investigation soil boring will be installed to a depth of approximately 110' below ground surface. The soil boring will be left open for approximately 48 hours, gauged with a water level meter to check for potential groundwater, then plugged in accordance with the associated Well Plugging Plan of Operations.

FOR OSE INTERNAL USE — Application for Permit, Form WR-07

File No.: C-04672	Trn No.: 734614

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

Exploratory: ■ Include a description of any proposed pump test, if applicable.	**Pollution Control and/or Recovery:** ☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for the pollution control or recovery operation. ☐ The estimated maximum period of time for completion of the operation. ☐ The annual diversion amount. ☐ The annual consumptive use amount. ☐ The maximum amount of water to be diverted and injected for the duration of the operation. ☐ The method and place of discharge.	**Construction De-Watering:** ☐ Include a description of the proposed dewatering operation, ☐ The estimated duration of the operation, ☐ The maximum amount of water to be diverted, ☐ A description of the need for the dewatering operation, and, ☐ A description of how the diverted water will be disposed of.	**Mine De-Watering:** ☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for mine dewatering. ☐ The estimated maximum period of time for completion of the operation. ☐ The source(s) of the water to be diverted. ☐ The geohydrologic characteristics of the aquifer(s). ☐ The maximum amount of water to be diverted per annum. ☐ The maximum amount of water to be diverted for the duration of the operation. ☐ The quality of the water. ☐ The method of measurement of water diverted. ☐ The recharge of water to the aquifer. ☐ Description of the estimated area of hydrologic effect of the project. ☐ The method and place of discharge. ☐ An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. ☐ A description of the methods employed to estimate effects on surface water rights and underground water rights. ☐ Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.
Monitoring: ☐ Include the reason for the monitoring well, and, ☐ The duration of the planned monitoring.	☐ The method of measurement of water produced and discharged. ☐ The source of water to be injected. ☐ The method of measurement of water injected. ☐ The characteristics of the aquifer. ☐ The method of determining the resulting annual consumptive use of water and depletion from any related stream system. ☐ Proof of any permit required from the New Mexico Environment Department. ☐ An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	**Ground Source Heat Pump:** ☐ Include a description of the geothermal heat exchange project, ☐ The number of boreholes for the completed project and required depths. ☐ The time frame for constructing the geothermal heat exchange project, and, ☐ The duration of the project. ☐ Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	

ACKNOWLEDGEMENT

I, We (name of applicant(s)), Beaux Jennings, Wade Dittrich
Print Name(s)

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

Beaux Jennings Digitally signed by Beaux Jennings Date: 2022.08.22 16:28:24 -05'00'
Applicant Signature

Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

☑ approved ☐ partially approved ☐ denied

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

Witness my hand and seal this 22nd day of September 20 22, for the State Engineer,

Mike A. Hamman, P.E., State Engineer

By: K. Parekh
Signature

Kashyap Parekh
Print

Title: Water Resource Manager I
Print

FOR OSE INTERNAL USE — Application for Permit, Form WR-07

File No.: C-04672 Trn No.: 734614

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NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL

17-16 Construction of a water well by anyone without a valid New Mexico Well Driller License is illegal, and the landowner shall bear the cost of plugging the well by a licensed New Mexico well driller. This does not apply to driven wells, the casing of which does not exceed two and three-eighths inches outside diameter.

17-1A Depth of the well shall not exceed the thickness of the valley fill.

17-4 No water shall be appropriated and beneficially used under this permit.

17-6 The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable and approved by the state engineer. The well shall be plugged with an office of the state engineer approved sealant for use in the plugging of non-artesian wells. The well driller shall cut the casing off at least four (4) feet below ground surface and fill the open hole with at least two vertical feet of approved sealant. The driller must fill or cover any open annulus with sealant. Once the sealant has cured, the well driller or well owner may cover the seal with soil. A Plugging Report for said well shall be filed with the Office of the State Engineer in a District Office within 30 days of completion of the plugging.

Trn Desc: C 04672 POD 1

File Number: C 04672
Trn Number: 734614

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

17-7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

17-B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig, provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.

17-C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record.
The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.

17-C2 No water shall be diverted from this well except for testing purposes which shall not exceed ten (10) cumulative days, and well shall be plugged or capped on or before , unless a permit to use water from this well is acquired from the Office of the State Engineer.

17-G If artesian water is encountered, the well driller shall comply with all rules and regulations pertaining to the drilling and casing of artesian wells.

17-P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

17-Q The State Engineer retains jurisdiction over this permit.

17-R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.

LOG The Point of Diversion C 04672 POD 1 must be completed and the Well Log filed on or before 09/22/2023.

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

ACTION OF STATE ENGINEER

Notice of Intention Rcvd:	Date Rcvd. Corrected:
Formal Application Rcvd: 08/24/2022	Pub. of Notice Ordered:
Date Returned - Correction:	Affidavit of Pub. Filed:

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

Witness my hand and seal this 22 day of Sep A.D., 2022

Mike A. Hamman, P.E., State Engineer

By: K. Parekh
KASHYAP PAREKH

Trn Desc: C 04672 POD 1

File Number: C 04672
Trn Number: 734614

OFFICE OF THE STATE ENGINEER/INTERSTATE STREAM COMMISSION – ROSWELL OFFICE

OFFICIAL RECEIPT NUMBER: 2 - 44969 DATE: 8/24/22 FILE NO.: _____

TOTAL: 5.00 RECEIVED: Five DOLLARS CHECK NO.: 1216 CASH: _____

PAYOR: Kylei M Jennings + Beaux D Jennings ADDRESS: 6101 S County Road 1065 CITY: Midland STATE: TX

ZIP: 79706 RECEIVED BY: R.C.

INSTRUCTIONS: Indicate the number of actions to the left of the appropriate type of filing. Complete the receipt information. **Original** to payor; **pink** copy to Program Support/ASD; and **yellow** copy for Water Rights. If a mistake is made, void the original and all copies and submit to Program Support/ASD as part of your daily deposit.

A. Ground Water Filing Fees

___	1. Change of Ownership of Water Right	$ 2.00
___	2. Application to Appropriate or Supplement Domestic 72-12-1 Well	$ 125.00
___	3. Application to Repair or Deepen 72-12-1 Well	$ 75.00
___	4. Application for Replacement 72-12-1 Well	$ 75.00
___	5. Application to Change Purpose of Use 72-12-1 Well	$ 75.00
___	6. Application for Stock Well/Temp. Use	$ 5.00
___	7. Application to Appropriate Irrigation, Municipal, or Commercial Use	$ 25.00
___	8. Declaration of Water Right	$ 1.00
___	9. Application for Additional Point of Diversion Non 72-12-1 Per Well	$ 25.00
___	10. Application to Change Place or Purpose of Use Non 72-12-1 Well	$ 25.00
___	11. Application to Change Point of Diversion and Place and/or Purpose of Use from Surface Water to Ground Water	$ 50.00
___	12. Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Ground Water	$ 50.00
___	13. Application to Change Point of Diversion of Non 72-12-1 Well	$ 25.00
___	14. Application to Repair or Deepen Non 72-12-1 Well	$ 5.00
1	15. Application for Test, Expl. Observ. Well	$ 5.00
___	16. Application for Extension of Time	$ 25.00
___	17. Proof of Application to Beneficial Use	$ 25.00
___	18. Notice of Intent to Appropriate	$ 25.00

B. Surface Water Filing Fees

___	1. Change of Ownership of a Water Right	$ 5.00
___	2. Declaration of Water Right	$ 10.00
___	3. Amended Declaration	$ 25.00
___	4. Application to Change Point of Diversion and Place and/or Purpose of Use from Surface Water to Surface Water	$ 200.00
___	5. Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Surface Water	$ 200.00
___	6. Application to Change Point of Diversion	$ 100.00
___	7. Application to Change Place and/or Purpose of Use	$ 100.00
___	8. Application to Appropriate	$ 25.00
___	9. Notice of Intent to Appropriate	$ 25.00
___	10. Application for Extension of Time	$ 50.00
___	11. Supplemental Well to a Surface Right	$ 100.00
___	12. Return Flow Credit	$ 100.00
___	13. Proof of Completion of Works	$ 25.00
___	14. Proof of Application of Water to Beneficial Use	$ 25.00
___	15. Water Development Plan	$ 100.00
___	16. Declaration of Livestock Water Impoundment	$ 10.00
___	17. Application for Livestock Water Impoundment	$ 10.00

C. Well Driller Fees

___	1. Application for Well Driller's License	$ 50.00
___	2. Application for Renewal of Well Driller's License	$ 50.00
___	3. Application to Amend Well Driller's License	$ 50.00

D. Reproduction of Documents

___ @ 0.25¢ $_____

___ Map(s) @ $3.00 $_____

E. Certification $_____

F. Other $_____

G. Comments:

Fed Ex

All fees are non-refundable.

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

August 26, 2022

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

RE: Well Plugging Plan of Operations for well no. C-4672-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 wells, listed below, to be plugged. West Texas Water Well Service (WD-1184) will perform the plugging.

Permittee: Oxy USA Inc.
NMOSE Permit Number: C-4672-POD1

NMOSE File	Casing diameter (inches)	Well depth (feet bgl)	Approximate static water level (feet bgl)	Latitude	Longitude
C-4672-POD1	6.0	110.0	Unknown	32° 14' 41.5176"	103° 43' 43.4346''

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 of 6.0 inch diameter (I.D.) casing 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 26th day of August 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 575-835-5838 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-4672-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, 14 min, 41.5176 sec
Longitude: -103 deg, 43 min, 43.4346 sec, NAD 83

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

Investigation soil boring to determine groundwater level.

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

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

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

6) Depth of the well: 110 feet

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

8) Casing material: N/A

9) The well was constructed with:

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

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

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

11) Was the well built with surface casing? No If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? 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

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: 8/22/2022

IX. ACTION OF THE STATE ENGINEER:

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 26th day of August, 2022

Mike A. Hamman

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

By: K. Parekh

KASHYAP PAREKH

W.R.M.I

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

OSE DIT AUG 24 2022 AM 11:16

Client: Oxy USA Inc.
Project Name: Mesa Verde 8 Federal #2H FACI
Project Location: Eddy County, New Mexico
Project Manager: Beaux Jennings

SOIL BORING / WELL LOG

DRILLING & SAMPLING INFORMAITON

Date Started: 9/1/2022
Date Completed: 9/1/2022
Drilling Company: West Texas Water Well Services
Driller: Russell Southerland

Soil Boring / Well Number: SB-1
Project #: 03B1417051
Drawn By: Beaux Jennings
Approved By: Heather Holthaus

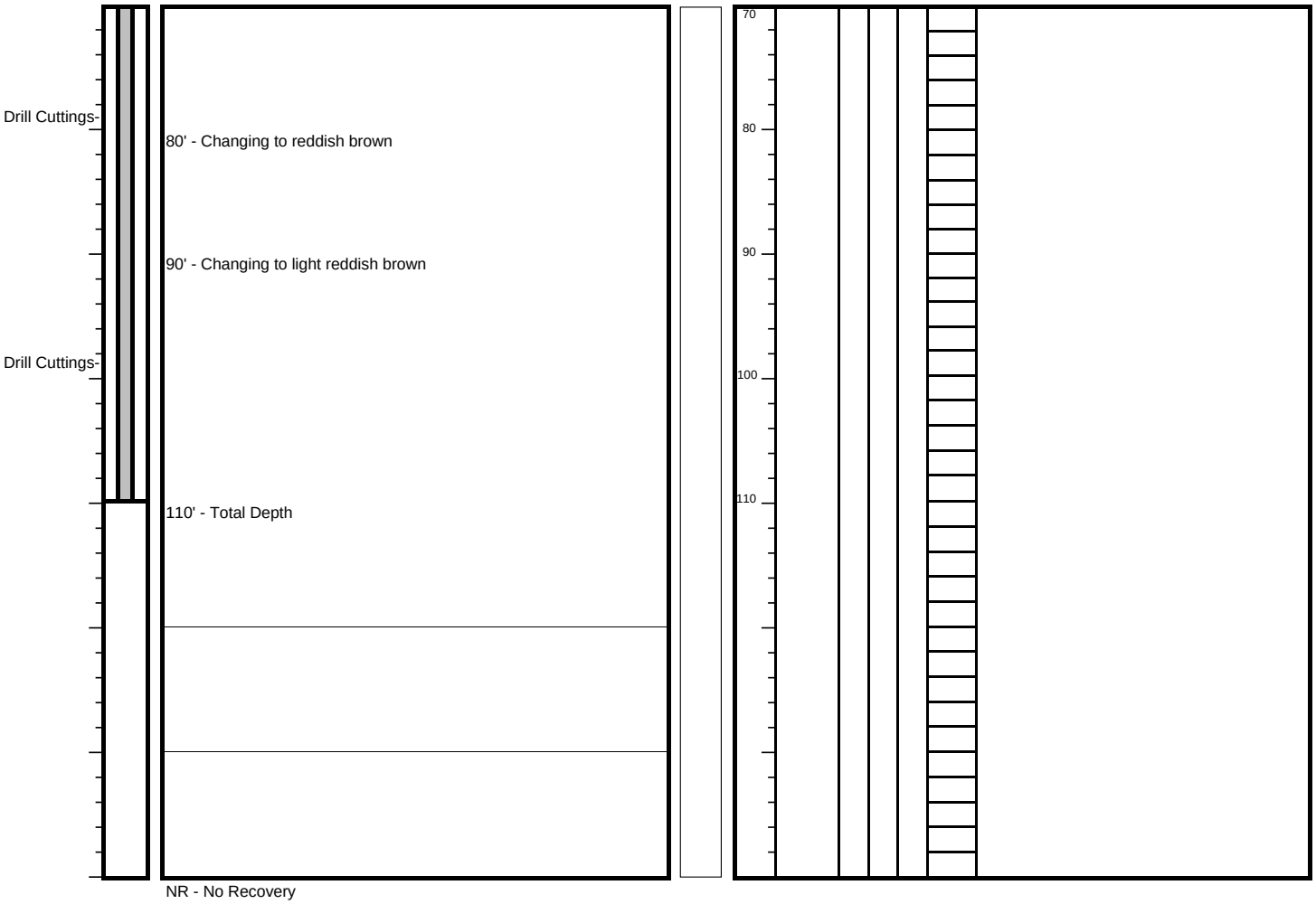
Geologist: Shane Diller
Sampler: Shane Diller
Boring Method: AR
Logged By: Shane Diller
Sampler Type: AR
Bore Hole Diameter: 5 7/8"
Screen: N/A
Casing Diameter: N/A
Total Depth: 110'
Well Materials: N/A
Surface Completion: N/A

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



NR - No Recovery

ENSOLUM

National Flood Hazard Layer FIRMette

FEMA

103°43'40"W 32°14'49"N

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

1:6,000

103°43'3"W 32°14'18"N

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 9/28/2022 at 7:19 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.

Untitled Map

Write a description for your map.

Active Mines in New Mexico

9/28/2022, 5:11:29 PM

1:72,224

0 0.5 1 2 mi

0 0.75 1.5 3 km

Registered Mines

- Aggregate, Stone etc.
- Aggregate, Stone etc.

Esri, HERE, Garmin, Earthstar Geographics

U.S. Fish and Wildlife Service
National Wetlands Inventory

NWI Map (Mesa Verde)

September 28, 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

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised April 3, 2017

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company OXY USA INC	Contact CASEY L SUMMERS
Address PO BOX 4294; HOUSTON, TX 77210	Telephone No. 575-513-8289
Facility Name MESA VERDE 8 FEDERAL #2H FACI	Facility Type BATTERY

Surface Owner FEDERAL	Mineral Owner FEDERAL	API No. 30-025-37914

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	8	24S	32E	660	SOUTH	330	EAST	LEA

Latitude_ 32.2265778 **_ Longitude_** -103.6892471 _ NAD83

NATURE OF RELEASE

Type of Release PRODUCED WATER	Volume of Release 10 bbls	Volume Recovered 2 bbls
Source of Release 3 inch black poly water transfer line	Date and Hour of Occurrence 6/22/2017	Date and Hour of Discovery
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OLIVIA YU-NMOCD; SHELLY TUCKER-BLM	
By Whom? CASEY L SUMMERS	Date and Hour 6/23/2017 @ 8:15 AM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

RECEIVED
By Olivia Yu at 1:34 pm, Jul 10, 2017

Describe Cause of Problem and Remedial Action Taken.*

3 inch black poly water transfer line was cut by road maintainer. Line has been repaired and 2 bbls of free fluids was recovered by a vacuum truck.

Describe Area Affected and Cleanup Action Taken.*

The affected areas of this spill are approximately 6 X 200 FT, 20 X 20 FT, 20 X 20 FT and 20 X 50 FT (measurements are subject to change with GPS tracking). Remediation will be completed in accordance with a remediation plan approved by the NMOCD and BLM.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:

Printed Name: CASEY L SUMMERS

Title: ENVIRONMENTAL ADVISOR

E-mail Address: casey_summers@oxy.com

Date: 7-10-17 Phone: 575-513-8289

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 7/10/2017 Expiration Date:

Conditions of Approval: see attached directive

Attached ☑

* Attach Additional Sheets If Necessary

1RP-4751 nOY1719148989 pOY1719149210

Operator/Responsible Party,

The OCD has received the form C-141 you provided on _7/10/2017_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number _1RP-4751__ has been assigned. **Please refer to this case number in all future correspondence.**

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

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

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District _1_ office in __Hobbs____ on or before _8/10/2017_. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

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

● Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

● Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

● Nominal detection limits for field and laboratory analyses must be provided.

● Composite sampling is not generally allowed.

● Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

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

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

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

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

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

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

ENSOLUM

APPENDIX C

Photographic Documentation

View of the release area, facing southwest.

View of the release area, facing northeast.

ENSOLUM

APPENDIX D

Tables

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Oxy USA Inc.
Mesa Verde 8 Fed. 2H
Lea County, New Mexico
Ensolum Project No. 03B1417051

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
Sample Point Analytical Results												
SP-1	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**80.0**
SP-2	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**64.0**
SP-3	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**128**
SP-4	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	**67.2**	<10.0	**67.2**	**1,230**
	9/14/2023	0.25 - 0.50	NS					NS				**96.0**
SP-5	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	**17.5**	<10.0	**17.5**	**976**
	9/14/2023	0.25 - 0.50	NS					NS				**80.0**
SP-6	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	**106**	<10.0	**106**	**1,600**
	9/14/2023	0.25 - 0.50	NS					<10.0	<10.0	<10.0	<10.0	**240**
SP-7	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**2,400**
	9/14/2023	0.25 - 0.50	NS					NS				**32.0**
SP-8	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	**81.4**	<10.0	**81.4**	**1,540**
	9/14/2023	0.25 - 0.50	NS					NS				**32.0**
SP-9	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	**429**	<10.0	**429**	**896**
	9/14/2023	0.25 - 0.50	NS					<10.0	<10.0	<10.0	<10.0	**32.0**
SP-10	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	**31.2**	<10.0	**31.2**	**240**
SP-11	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**112**
SP-12	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	**48.4**	<10.0	**48.4**	**832**
	9/14/2023	0.25 - 0.50	NS					NS				<16.0
SP-13	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	**11.9**	<10.0	**11.9**	**336**
SP-14	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	**51.2**	<10.0	**51.2**	**1,020**
	9/14/2023	0.25 - 0.50	NS					NS				<16.0
SP-15	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**192**
SP-16	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	**13.9**	<10.0	**13.9**	**704**
	9/14/2023	0.25 - 0.50	NS					NS				**48.0**
SP-17	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**640**
	9/14/2023	0.25 - 0.50	NS					NS				**48.0**
SP-18	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**144**
SP-19	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	**53.9**	<10.0	**53.9**	**816**
	9/14/2023	0.25 - 0.50	NS					NS				**96.0**
SP-20	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**176**

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Oxy USA Inc.
Mesa Verde 8 Fed. 2H
Lea County, New Mexico
Ensolum Project No. 03B1417051

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**
Sample Point Analytical Results												
SP-21	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**256**
SP-22	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	**16.6**	<10.0	**16.6**	**368**
SP-23	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	**60.6**	<10.0	**60.6**	**1,630**
	9/14/2023	0.25 - 0.50	NS					NS				**32.0**
SP-24	8/11/2022	0 - 0.25	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**304**

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

Additional Excavation Conducted and/or Re-Sampled

bgs: below ground surface

mg/kg: milligrams per kilogram

NE: Not Established

NS: Not Sampled

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

MRO: Motor Oil/Lube Oil Range Organics

TPH: Total Petroleum Hydrocarbon

ENSOLUM

APPENDIX E

Laboratory Data Sheets and Chain-of-Custody Documentation

CARDINAL Laboratories

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

August 18, 2022

BEAUX JENNINGS

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: MESA VERDE 8 FED 2H

Enclosed are the results of analyses for samples received by the laboratory on 08/11/22 11:37.

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:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 1 0 - .25' (H223652-01)

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	08/17/2022	ND	1.92	96.0	2.00	1.62	
Toluene*	<0.050	0.050	08/17/2022	ND	2.08	104	2.00	0.224	
Ethylbenzene*	<0.050	0.050	08/17/2022	ND	2.01	100	2.00	1.33	
Total Xylenes*	<0.150	0.150	08/17/2022	ND	6.30	105	6.00	1.04	
Total BTEX	<0.300	0.300	08/17/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	08/16/2022	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/15/2022	ND	213	106	200	2.49	
DRO >C10-C28*	<10.0	10.0	08/15/2022	ND	240	120	200	9.69	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *77.7 %* *43-149*

Surrogate: 1-Chlorooctadecane *75.8 %* *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:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 2 0 - .25' (H223652-02)

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	08/17/2022	ND	1.92	96.0	2.00	1.62	
Toluene*	<0.050	0.050	08/17/2022	ND	2.08	104	2.00	0.224	
Ethylbenzene*	<0.050	0.050	08/17/2022	ND	2.01	100	2.00	1.33	
Total Xylenes*	<0.150	0.150	08/17/2022	ND	6.30	105	6.00	1.04	
Total BTEX	<0.300	0.300	08/17/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	08/16/2022	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/15/2022	ND	213	106	200	2.49	
DRO >C10-C28*	<10.0	10.0	08/15/2022	ND	240	120	200	9.69	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *86.5 %* *43-149*

Surrogate: 1-Chlorooctadecane *85.5 %* *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:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 3 0 - .25' (H223652-03)

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	08/15/2022	ND	1.92	96.0	2.00	1.62	
Toluene*	<0.050	0.050	08/15/2022	ND	2.08	104	2.00	0.224	
Ethylbenzene*	<0.050	0.050	08/15/2022	ND	2.01	100	2.00	1.33	
Total Xylenes*	<0.150	0.150	08/15/2022	ND	6.30	105	6.00	1.04	
Total BTEX	<0.300	0.300	08/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	08/16/2022	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/15/2022	ND	213	106	200	2.49	
DRO >C10-C28*	<10.0	10.0	08/15/2022	ND	240	120	200	9.69	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *87.9 %* *43-149*

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

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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:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 4 0 - .25' (H223652-04)

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	08/15/2022	ND	1.92	96.0	2.00	1.62	
Toluene*	<0.050	0.050	08/15/2022	ND	2.08	104	2.00	0.224	
Ethylbenzene*	<0.050	0.050	08/15/2022	ND	2.01	100	2.00	1.33	
Total Xylenes*	<0.150	0.150	08/15/2022	ND	6.30	105	6.00	1.04	
Total BTEX	<0.300	0.300	08/15/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1230**	16.0	08/16/2022	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/15/2022	ND	213	106	200	2.49	
DRO >C10-C28*	**67.2**	10.0	08/15/2022	ND	240	120	200	9.69	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *83.4 %* *43-149*

Surrogate: 1-Chlorooctadecane *87.5 %* *42.5-161*

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Analytical Results For:

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

Received:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 5 0 - .25' (H223652-05)

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	08/15/2022	ND	1.92	96.0	2.00	1.62	
Toluene*	<0.050	0.050	08/15/2022	ND	2.08	104	2.00	0.224	
Ethylbenzene*	<0.050	0.050	08/15/2022	ND	2.01	100	2.00	1.33	
Total Xylenes*	<0.150	0.150	08/15/2022	ND	6.30	105	6.00	1.04	
Total BTEX	<0.300	0.300	08/15/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**976**	16.0	08/16/2022	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/15/2022	ND	213	106	200	2.49	
DRO >C10-C28*	**17.5**	10.0	08/15/2022	ND	240	120	200	9.69	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *85.6 %* *43-149*

Surrogate: 1-Chlorooctadecane *84.7 %* *42.5-161*

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Analytical Results For:

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

Received:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 6 0 - .25' (H223652-06)

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	08/15/2022	ND	1.92	96.0	2.00	1.62	
Toluene*	<0.050	0.050	08/15/2022	ND	2.08	104	2.00	0.224	
Ethylbenzene*	<0.050	0.050	08/15/2022	ND	2.01	100	2.00	1.33	
Total Xylenes*	<0.150	0.150	08/15/2022	ND	6.30	105	6.00	1.04	
Total BTEX	<0.300	0.300	08/15/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1600**	16.0	08/16/2022	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/15/2022	ND	213	106	200	2.49	
DRO >C10-C28*	**106**	10.0	08/15/2022	ND	240	120	200	9.69	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *75.8 %* *43-149*

Surrogate: 1-Chlorooctadecane *82.6 %* *42.5-161*

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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:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 7 0 - .25' (H223652-07)

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	08/17/2022	ND	1.92	96.0	2.00	1.62	
Toluene*	<0.050	0.050	08/17/2022	ND	2.08	104	2.00	0.224	
Ethylbenzene*	<0.050	0.050	08/17/2022	ND	2.01	100	2.00	1.33	
Total Xylenes*	<0.150	0.150	08/17/2022	ND	6.30	105	6.00	1.04	
Total BTEX	<0.300	0.300	08/17/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2400**	16.0	08/16/2022	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	08/15/2022	ND	213	106	200	2.49	
DRO >C10-C28*	<10.0	10.0	08/15/2022	ND	240	120	200	9.69	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *81.6 %* *43-149*

Surrogate: 1-Chlorooctadecane *81.3 %* *42.5-161*

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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:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 8 0 - .25' (H223652-08)

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	08/15/2022	ND	1.92	96.0	2.00	1.62	
Toluene*	<0.050	0.050	08/15/2022	ND	2.08	104	2.00	0.224	
Ethylbenzene*	<0.050	0.050	08/15/2022	ND	2.01	100	2.00	1.33	
Total Xylenes*	<0.150	0.150	08/15/2022	ND	6.30	105	6.00	1.04	
Total BTEX	<0.300	0.300	08/15/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1540**	16.0	08/16/2022	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	08/15/2022	ND	213	106	200	2.49	
DRO >C10-C28*	**81.4**	10.0	08/15/2022	ND	240	120	200	9.69	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *75.3 %* *43-149*

Surrogate: 1-Chlorooctadecane *83.0 %* *42.5-161*

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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:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 9 0 - .25' (H223652-09)

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	08/15/2022	ND	1.92	96.0	2.00	1.62	
Toluene*	<0.050	0.050	08/15/2022	ND	2.08	104	2.00	0.224	
Ethylbenzene*	<0.050	0.050	08/15/2022	ND	2.01	100	2.00	1.33	
Total Xylenes*	<0.150	0.150	08/15/2022	ND	6.30	105	6.00	1.04	
Total BTEX	<0.300	0.300	08/15/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**896**	16.0	08/16/2022	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	08/15/2022	ND	213	106	200	2.49	
DRO >C10-C28*	**429**	10.0	08/15/2022	ND	240	120	200	9.69	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *77.5 %* *43-149*

Surrogate: 1-Chlorooctadecane *98.1 %* *42.5-161*

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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:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 10 0 - .25' (H223652-10)

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	08/17/2022	ND	1.92	96.0	2.00	1.62	
Toluene*	<0.050	0.050	08/17/2022	ND	2.08	104	2.00	0.224	
Ethylbenzene*	<0.050	0.050	08/17/2022	ND	2.01	100	2.00	1.33	
Total Xylenes*	<0.150	0.150	08/17/2022	ND	6.30	105	6.00	1.04	
Total BTEX	<0.300	0.300	08/17/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	08/16/2022	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	08/15/2022	ND	213	106	200	2.49	
DRO >C10-C28*	**31.2**	10.0	08/15/2022	ND	240	120	200	9.69	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *90.4 %* *43-149*

Surrogate: 1-Chlorooctadecane *92.3 %* *42.5-161*

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

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

Received:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 11 0 - .25' (H223652-11)

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	08/17/2022	ND	1.92	96.0	2.00	1.62	
Toluene*	<0.050	0.050	08/17/2022	ND	2.08	104	2.00	0.224	
Ethylbenzene*	<0.050	0.050	08/17/2022	ND	2.01	100	2.00	1.33	
Total Xylenes*	<0.150	0.150	08/17/2022	ND	6.30	105	6.00	1.04	
Total BTEX	<0.300	0.300	08/17/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	08/16/2022	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	08/15/2022	ND	213	106	200	2.49	
DRO >C10-C28*	<10.0	10.0	08/15/2022	ND	240	120	200	9.69	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *81.6 %* *43-149*

Surrogate: 1-Chlorooctadecane *80.8 %* *42.5-161*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

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

Received:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 12 0 - .25' (H223652-12)

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	08/15/2022	ND	1.92	96.0	2.00	1.62	
Toluene*	<0.050	0.050	08/15/2022	ND	2.08	104	2.00	0.224	
Ethylbenzene*	<0.050	0.050	08/15/2022	ND	2.01	100	2.00	1.33	
Total Xylenes*	<0.150	0.150	08/15/2022	ND	6.30	105	6.00	1.04	
Total BTEX	<0.300	0.300	08/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.5 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**832**	16.0	08/16/2022	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	08/15/2022	ND	213	106	200	2.49	
DRO >C10-C28*	**48.4**	10.0	08/15/2022	ND	240	120	200	9.69	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *87.0 %* *43-149*

Surrogate: 1-Chlorooctadecane *91.7 %* *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:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 13 0 - .25' (H223652-13)

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	08/15/2022	ND	1.92	96.0	2.00	1.62	
Toluene*	<0.050	0.050	08/15/2022	ND	2.08	104	2.00	0.224	
Ethylbenzene*	<0.050	0.050	08/15/2022	ND	2.01	100	2.00	1.33	
Total Xylenes*	<0.150	0.150	08/15/2022	ND	6.30	105	6.00	1.04	
Total BTEX	<0.300	0.300	08/15/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**336**	16.0	08/16/2022	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	08/15/2022	ND	215	107	200	1.53	
DRO >C10-C28*	**11.9**	10.0	08/15/2022	ND	234	117	200	1.45	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *85.1 %* *43-149*

Surrogate: 1-Chlorooctadecane *89.8 %* *42.5-161*

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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:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 14 0 - .25' (H223652-14)

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	08/15/2022	ND	1.92	96.0	2.00	1.62	
Toluene*	<0.050	0.050	08/15/2022	ND	2.08	104	2.00	0.224	
Ethylbenzene*	<0.050	0.050	08/15/2022	ND	2.01	100	2.00	1.33	
Total Xylenes*	<0.150	0.150	08/15/2022	ND	6.30	105	6.00	1.04	
Total BTEX	<0.300	0.300	08/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1020**	16.0	08/16/2022	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	08/15/2022	ND	215	107	200	1.53	
DRO >C10-C28*	**51.2**	10.0	08/15/2022	ND	234	117	200	1.45	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *101 %* *43-149*

Surrogate: 1-Chlorooctadecane *112 %* *42.5-161*

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Analytical Results For:

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

Received:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 15 0 - .25' (H223652-15)

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	08/15/2022	ND	1.92	96.0	2.00	1.62	
Toluene*	<0.050	0.050	08/15/2022	ND	2.08	104	2.00	0.224	
Ethylbenzene*	<0.050	0.050	08/15/2022	ND	2.01	100	2.00	1.33	
Total Xylenes*	<0.150	0.150	08/15/2022	ND	6.30	105	6.00	1.04	
Total BTEX	<0.300	0.300	08/15/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	08/16/2022	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	08/15/2022	ND	215	107	200	1.53	
DRO >C10-C28*	<10.0	10.0	08/15/2022	ND	234	117	200	1.45	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *102 %* *43-149*

Surrogate: 1-Chlorooctadecane *106 %* *42.5-161*

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Analytical Results For:

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

Received:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 16 0 - .25' (H223652-16)

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	08/15/2022	ND	1.92	96.0	2.00	1.62	
Toluene*	<0.050	0.050	08/15/2022	ND	2.08	104	2.00	0.224	
Ethylbenzene*	<0.050	0.050	08/15/2022	ND	2.01	100	2.00	1.33	
Total Xylenes*	<0.150	0.150	08/15/2022	ND	6.30	105	6.00	1.04	
Total BTEX	<0.300	0.300	08/15/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**704**	16.0	08/16/2022	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	08/15/2022	ND	215	107	200	1.53	
DRO >C10-C28*	**13.9**	10.0	08/15/2022	ND	234	117	200	1.45	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *92.9 %* *43-149*

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

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Analytical Results For:

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

Received:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 17 0 - .25' (H223652-17)

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	08/15/2022	ND	1.92	96.0	2.00	1.62	
Toluene*	<0.050	0.050	08/15/2022	ND	2.08	104	2.00	0.224	
Ethylbenzene*	<0.050	0.050	08/15/2022	ND	2.01	100	2.00	1.33	
Total Xylenes*	<0.150	0.150	08/15/2022	ND	6.30	105	6.00	1.04	
Total BTEX	<0.300	0.300	08/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**640**	16.0	08/16/2022	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	08/15/2022	ND	215	107	200	1.53	
DRO >C10-C28*	<10.0	10.0	08/15/2022	ND	234	117	200	1.45	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *97.4 %* *43-149*

Surrogate: 1-Chlorooctadecane *104 %* *42.5-161*

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Analytical Results For:

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

Received:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 18 0 - .25' (H223652-18)

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	08/15/2022	ND	1.92	96.0	2.00	1.62	
Toluene*	<0.050	0.050	08/15/2022	ND	2.08	104	2.00	0.224	
Ethylbenzene*	<0.050	0.050	08/15/2022	ND	2.01	100	2.00	1.33	
Total Xylenes*	<0.150	0.150	08/15/2022	ND	6.30	105	6.00	1.04	
Total BTEX	<0.300	0.300	08/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**144**	16.0	08/16/2022	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	08/15/2022	ND	215	107	200	1.53	
DRO >C10-C28*	<10.0	10.0	08/15/2022	ND	234	117	200	1.45	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *92.3 %* *43-149*

Surrogate: 1-Chlorooctadecane *96.7 %* *42.5-161*

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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:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 19 0 - .25' (H223652-19)

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	08/15/2022	ND	1.92	96.0	2.00	1.62	
Toluene*	<0.050	0.050	08/15/2022	ND	2.08	104	2.00	0.224	
Ethylbenzene*	<0.050	0.050	08/15/2022	ND	2.01	100	2.00	1.33	
Total Xylenes*	<0.150	0.150	08/15/2022	ND	6.30	105	6.00	1.04	
Total BTEX	<0.300	0.300	08/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.6 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**816**	16.0	08/16/2022	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	08/15/2022	ND	215	107	200	1.53	
DRO >C10-C28*	**53.9**	10.0	08/15/2022	ND	234	117	200	1.45	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *91.5 %* *43-149*

Surrogate: 1-Chlorooctadecane *102 %* *42.5-161*

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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:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 20 0 - .25' (H223652-20)

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	08/18/2022	ND	1.92	96.0	2.00	1.62	
Toluene*	<0.050	0.050	08/18/2022	ND	2.08	104	2.00	0.224	
Ethylbenzene*	<0.050	0.050	08/18/2022	ND	2.01	100	2.00	1.33	
Total Xylenes*	<0.150	0.150	08/18/2022	ND	6.30	105	6.00	1.04	
Total BTEX	<0.300	0.300	08/18/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	08/16/2022	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	08/15/2022	ND	215	107	200	1.53	
DRO >C10-C28*	<10.0	10.0	08/15/2022	ND	234	117	200	1.45	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *107 %* *43-149*

Surrogate: 1-Chlorooctadecane *112 %* *42.5-161*

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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:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 21 0 - .25' (H223652-21)

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	08/15/2022	ND	2.04	102	2.00	0.0537	
Toluene*	<0.050	0.050	08/15/2022	ND	1.97	98.6	2.00	0.278	
Ethylbenzene*	<0.050	0.050	08/15/2022	ND	1.93	96.6	2.00	0.508	
Total Xylenes*	<0.150	0.150	08/15/2022	ND	5.94	99.1	6.00	1.06	
Total BTEX	<0.300	0.300	08/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *69.9-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**256**	16.0	08/16/2022	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	08/15/2022	ND	215	107	200	1.53	
DRO >C10-C28*	<10.0	10.0	08/15/2022	ND	234	117	200	1.45	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *109 %* *43-149*

Surrogate: 1-Chlorooctadecane *114 %* *42.5-161*

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Analytical Results For:

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

Received:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 22 0 - .25' (H223652-22)

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	08/15/2022	ND	2.04	102	2.00	0.0537	
Toluene*	<0.050	0.050	08/15/2022	ND	1.97	98.6	2.00	0.278	
Ethylbenzene*	<0.050	0.050	08/15/2022	ND	1.93	96.6	2.00	0.508	
Total Xylenes*	<0.150	0.150	08/15/2022	ND	5.94	99.1	6.00	1.06	
Total BTEX	<0.300	0.300	08/15/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**368**	16.0	08/16/2022	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	08/15/2022	ND	215	107	200	1.53	
DRO >C10-C28*	**16.6**	10.0	08/15/2022	ND	234	117	200	1.45	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *103 %* *43-149*

Surrogate: 1-Chlorooctadecane *110 %* *42.5-161*

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Analytical Results For:

ENSOLUM, LLC
BEAUX JENNINGS
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MIDLAND TX, 79705
Fax To:

Received:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 23 0 - .25' (H223652-23)

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	08/15/2022	ND	2.04	102	2.00	0.0537	
Toluene*	<0.050	0.050	08/15/2022	ND	1.97	98.6	2.00	0.278	
Ethylbenzene*	<0.050	0.050	08/15/2022	ND	1.93	96.6	2.00	0.508	
Total Xylenes*	<0.150	0.150	08/15/2022	ND	5.94	99.1	6.00	1.06	
Total BTEX	<0.300	0.300	08/15/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1630**	16.0	08/16/2022	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	08/15/2022	ND	215	107	200	1.53	
DRO >C10-C28*	**60.6**	10.0	08/15/2022	ND	234	117	200	1.45	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *93.5 %* *43-149*

Surrogate: 1-Chlorooctadecane *104 %* *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:	08/11/2022	Sampling Date:	08/11/2022
Reported:	08/18/2022	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shalyn Rodriguez
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 24 0 - .25' (H223652-24)

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	08/15/2022	ND	2.04	102	2.00	0.0537	
Toluene*	<0.050	0.050	08/15/2022	ND	1.97	98.6	2.00	0.278	
Ethylbenzene*	<0.050	0.050	08/15/2022	ND	1.93	96.6	2.00	0.508	
Total Xylenes*	<0.150	0.150	08/15/2022	ND	5.94	99.1	6.00	1.06	
Total BTEX	<0.300	0.300	08/15/2022	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**304**	16.0	08/16/2022	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	08/15/2022	ND	215	107	200	1.53	
DRO >C10-C28*	<10.0	10.0	08/15/2022	ND	234	117	200	1.45	
EXT DRO >C28-C36	<10.0	10.0	08/15/2022	ND					

Surrogate: 1-Chlorooctane *102 %* *43-149*

Surrogate: 1-Chlorooctadecane *108 %* *42.5-161*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Notes and Definitions

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

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 Street, Suite 400	Company: Oxy USA Inc.
City: Midland State: TX Zip: 79701	Attn: Wade Dittrich
Phone #: 210-219-8858 Fax #:	Address:
Project #: 03B1417051 Project Owner: Beaux Jennings	City:
Project Name: Mesa Verde 8 Fed. 2H	State: Zip:
Project Location: Lea County, NM	Phone #: 575-390-2828
Sampler Name: J. Gable	Fax #:

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: BTEX 8021B	TPH 8015M	Chloride 4500
H223163																		
1	SP-1	0-.25'	C	1			X					X		8/11/22	0850	X	X	X
2	SP-2														0900			
3	SP-3														0905			
4	SP-4														0952			
5	SP-5														0950			
6	SP-6														0949			
7	SP-7														0947			
8	SP-8														0945			
9	SP-9														0944			
10	SP-10	0-.25'	C	1			X					X		8/11/22	0942	X	X	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. 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: 8/11/22 Time: 1135	Received By:	Verbal Result: ☐ Yes ☒ No Add'l Phone #:
Relinquished By:	Date: 8/11/22 Time: 1137	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 0.9 Corrected Temp. °C 0.3	Sample Condition Cool ☑ Yes ☐ No Intact ☐ Yes ☐ No	CHECKED BY: (Initials) SR

Turnaround Time: Standard ☒ Rush ☐ Thermometer ID #113 Correction Factor -0.5°C -0.6

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

SR 8/11/22

FORM-006 R 3.2 10/07/21

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Ensolum, LLC	**BILL TO**
Project Manager: Beaux Jennings	P.O. #:
Address: 601 N Marienfeld Street, Suite 400	Company: Oxy USA Inc.
City: Midland State: TX Zip: 79701	Attn: Wade Dittrich
Phone #: 210-219-8858 Fax #:	Address:
Project #: 03B1417051 Project Owner: Beaux Jennings	City:
Project Name: Mesa Verde 8 Fed. 2H	State: Zip:
Project Location: Lea County, NM	Phone #: 575-390-2828
Sampler Name: J. Gable	Fax #:

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: BTEX 8021B	TPH 8015M	Chloride 4500
H223652																		
11	SP-11	0-.25	C	1			X					X		8/11/22	0940	X	X	X
12	SP-12														0938			
13	SP-13														0937			
14	SP-14														0936			
15	SP-15														0935			
16	SP-16														0934			
17	SP-17														0932			
18	SP-18														0930			
19	SP-19														0928			
20	SP-20	0-.25	C	1			X					X		8/11/22	0926	X	X	X

Relinquished By:	Date: 8/11/22 Time: 1135	Received By:	Verbal Result: ☐ Yes ☑ No Add'l Phone #:
Relinquished By:	Date: 8/11/22 Time: 1137	Received By:	All Results are emailed. Please provide Email address: bjennings@ensolum.com
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 0.9 Corrected Temp. °C 0.3	Sample Condition Cool Intact ☑ Yes ☑ Yes ☐ No ☐ No	CHECKED BY: (Initials)

REMARKS:

Turnaround Time: Standard ☑ Rush ☐ Bacteria (only) Sample Condition Cool Intact Observed Temp. °C ☐ Yes ☐ Yes ☐ No ☐ No Corrected Temp. °C

Thermometer ID #113 Correction Factor ~~0.5°C~~ 0.6°C

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

8/11/22

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	**BILL TO**
Project Manager: Beaux Jennings	P.O. #:
Address: 601 N Marienfeld Street, Suite 400	Company: Oxy USA Inc.
City: Midland State: TX Zip: 79701	Attn: Wade Dittrich
Phone #: 210-219-8858 Fax #:	Address:
Project #: 03B1417051 Project Owner:	City:
Project Name: Mesa Verde 8 Fed. 2H	State: Zip:
Project Location: Lea County, NM	Phone #: 575-390-2828
Sampler Name: J. Gable	Fax #:

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: BTEX 8021B	TPH 8015M	Chlorides 4500
H223652																		
21	SP-21	0-.25	C	1			X					X		8/11/22	0924	X	X	X
22	SP-22	1	1	1			1					1		1	0922	1	1	1
23	SP-23													1	0920			
24	SP-24	0-.25	C	1			X					X		8/11/22	0915	X	X	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. 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: 8/11/22 Time: 1135	Received By:	Verbal Result: ☐ Yes ☑ No Add'l Phone #:
Relinquished By:	Date: 8/11/22 Time: 1137	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 0.9 Corrected Temp. °C 0.3	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials)
			Turnaround Time: Standard ☑ Rush ☐ Thermometer ID #113 Correction Factor -0.6°C -10.6°C
			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

Cole-Parmer CUSTODY SEAL

Person Collecting Sample: [signature] (signature) Sample No. 24

Date Collected: 8/11/22 Time Collected: 1000

CARDINAL Laboratories

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

September 20, 2023

BEAUX JENNINGS

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: MESA VERDE 8 FED 2H

Enclosed are the results of analyses for samples received by the laboratory on 09/14/23 15:07.

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:	09/14/2023	Sampling Date:	09/14/2023
Reported:	09/20/2023	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shari Cisneros
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 4 .25' - .5' (H234989-01)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	09/15/2023	ND	416	104	400	3.77	

Sample ID: SP - 5 .25' - .5' (H234989-02)

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	09/15/2023	ND	416	104	400	3.77	

Sample ID: SP - 6 .25' - .5' (H234989-03)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	09/15/2023	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/15/2023	ND	192	95.9	200	2.28	
DRO >C10-C28*	<10.0	10.0	09/15/2023	ND	199	99.4	200	0.991	
EXT DRO >C28-C36	<10.0	10.0	09/15/2023	ND					

Surrogate: 1-Chlorooctane	*106 %*	*48.2-134*
Surrogate: 1-Chlorooctadecane	*111 %*	*49.1-148*

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:	09/14/2023	Sampling Date:	09/14/2023
Reported:	09/20/2023	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shari Cisneros
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 7 .25' - .5' (H234989-04)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	09/15/2023	ND	416	104	400	3.77	

Sample ID: SP - 8 .25' - .5' (H234989-05)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	09/15/2023	ND	416	104	400	3.77	

Sample ID: SP - 9 .25' - .5' (H234989-06)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	09/15/2023	ND	416	104	400	3.77	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/15/2023	ND	192	95.9	200	2.28	
DRO >C10-C28*	<10.0	10.0	09/15/2023	ND	199	99.4	200	0.991	
EXT DRO >C28-C36	<10.0	10.0	09/15/2023	ND					

Surrogate: 1-Chlorooctane	*80.4 %*	*48.2-134*
Surrogate: 1-Chlorooctadecane	*83.7 %*	*49.1-148*

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:	09/14/2023	Sampling Date:	09/14/2023
Reported:	09/20/2023	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shari Cisneros
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 12 .25' - .5' (H234989-07)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/15/2023	ND	416	104	400	3.77	

Sample ID: SP - 14 .25' - .5' (H234989-08)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/15/2023	ND	416	104	400	3.77	

Sample ID: SP - 16 .25' - .5' (H234989-09)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	09/15/2023	ND	416	104	400	3.77	

Sample ID: SP - 17 .25' - .5' (H234989-10)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	09/15/2023	ND	416	104	400	3.77	

Sample ID: SP - 19 .25' - .5' (H234989-11)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	09/15/2023	ND	416	104	400	3.77	

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:	09/14/2023	Sampling Date:	09/14/2023
Reported:	09/20/2023	Sampling Type:	Soil
Project Name:	MESA VERDE 8 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	03B1417051	Sample Received By:	Shari Cisneros
Project Location:	OXY - LEA CO NM		

Sample ID: SP - 23 .25' - .5' (H234989-12)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	09/15/2023	ND	416	104	400	3.77	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

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 Street, Suite 400
City: Midland State: TX Zip: 79701
Phone #: 210-219-8858 Fax #:
Project #: 03B1417051 Project Owner: BJ
Project Name: Mesa Verde 8 Fed 2H
Project Location: Lea co, NM
Sampler Name: J. Gable / S. Diller

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

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: Chloride 4500	TPH 8015M
H234989																	
1	SP-4	.25'-.5'	C	1			X					X		9/14/23	1215	X	
2	SP-5														1217		
3	SP-6														1230		X
4	SP-7														1221		
5	SP-8														1223		
6	SP-9														1225		X
7	SP-12														1327		
8	SP-14														1325		
9	SP-16														1322		
10	SP-17	.25'-.5'	C	1			X					X		9/14/23	1320	X	

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. 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: 9/14/23 Time: 1507 Received By: Shay Cisneros
Relinquished By: Date: Time: Received By:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
REMARKS:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C 35°C
Corrected Temp. °C
Sample Condition: Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No
CHECKED BY: (Initials) DC

Turnaround Time: Standard ☑ Rush ☐
Thermometer ID #113 #140
Correction Factor 0.5°C
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 Street, Suite 400
City: Midland State: TX Zip: 79701
Phone #: 210-219-8858 Fax #:
Project #: 03B1417051 Project Owner: BJ
Project Name: Mesa Verde 8 Fed 2H
Project Location: Lea Co, NM
Sampler Name: J. Gable S. Diller

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.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Chloride 4500
H234989																
11	SP-19	.25'-.5'	C	1			X					X		9/14/23	1317	X
12	SP-23	.25'-.5	C	1			X					X		9/14/23	1315	X

NEE

PLEASE NOTE: Liability and Damages. Cardinal's 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: 9/14/23 Time: 1507 Received By: Thani Cisneros
Relinquished By: Date: Time: Received By:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C 3.5 Corrected Temp. °C
Sample Condition: Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No
CHECKED BY: (Initials) JC

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
REMARKS:
Turnaround Time: Standard ☑ Rush ☐
Thermometer ID #113 Correction Factor 0.5°C #140
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	nOY1719148989
District RP	1RP-4751
Facility ID	30-025-37914
Application ID	pOY1719149210

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)* nOY1719148989
Contact mailing address: PO Box 4294, Houston, TX 77210	

Location of Release Source

Latitude 32.242698 Longitude -103.722653
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Mesa Verde 8 Fed. #2H	Site Type: Caliche Road
Date Release Discovered: 6/22/2017	API# *(if applicable)* 30-025-37914

Unit Letter	Section	Township	Range	County
P	8	24S	32E	Lea

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):	Volume Recovered (bbls):
☒ Produced Water	Volume Released (bbls): 10	Volume Recovered (bbls): 2
	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: 3-inch black poly water transfer line was cut by road maintainer.		

State of New Mexico
Oil Conservation Division

Incident ID	nOY1719148989
District RP	1RP-4751
Facility ID	30-025-37914
Application ID	pOY1719149210

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: 10-19-22

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

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nOY1719148989
District RP	1RP-4751
Facility ID	30-025-37914
Application ID	pOY1719149210

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	nOY1719148989
District RP	1RP-4751
Facility ID	30-025-37914
Application ID	pOY1719149210

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: 10-19-22

email: wade_dittrich@oxy.com

Telephone: 575-390-2828

OCD Only

Received by: _____

Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nOY1719148989
District RP	1RP-4751
Facility ID	30-025-37914
Application ID	pOY1719149210

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: Wade Dittrich
Date: 10/9/22

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

OCD Only

Received by: _____ Date: _____

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: _____ Date: _____

Printed Name: _____ Title: _____

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 293329

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 293329
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nOY1719148989**
Incident Name	**NOY1719148989 MESA VERDE 8 FEDERAL #002H @ 30-025-37914**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Closure Report Received**
Incident Well	**[30-025-37914] MESA VERDE 8 FEDERAL #002H**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	MESA VERDE 8 FEDERAL #002H
Date Release Discovered	06/22/2017
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Human Error | Pipeline (Any) | Produced Water | Released: 10 BBL | Recovered: 2 BBL | Lost: 8 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 293329
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**No**
Reasons why this would be considered a submission for a notification of a major release	*Unavailable.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Wade Dittrich Title: Environmental Coordinator Email: wade_dittrich@oxy.com Date: 12/11/2023

District I
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QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 293329
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	Attached Document
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	None
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	2400
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	429
GRO+DRO (EPA SW-846 Method 8015M)	429
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	08/11/2022
On what date will (or did) the final sampling or liner inspection occur	09/14/2023
On what date will (or was) the remediation complete(d)	09/14/2023
What is the estimated surface area (in square feet) that will be reclaimed	5400
What is the estimated volume (in cubic yards) that will be reclaimed	100
What is the estimated surface area (in square feet) that will be remediated	5400
What is the estimated volume (in cubic yards) that will be remediated	100
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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1220 S. St Francis Dr.
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QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 293329
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	LEA LAND LANDFILL [fEEM0112342028]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Wade Dittrich Title: Environmental Coordinator Email: wade_dittrich@oxy.com Date: 12/11/2023
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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District II
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Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 293329
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 293329
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**293328**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**09/14/2023**
What was the (estimated) number of samples that were to be gathered	**24**
What was the sampling surface area in square feet	**5400**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	5400
What was the total volume (cubic yards) remediated	100
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	5400
What was the total volume (in cubic yards) reclaimed	100
Summarize any additional remediation activities not included by answers (above)	None

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: Wade Dittrich Title: Environmental Coordinator Email: wade_dittrich@oxy.com Date: 12/11/2023

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QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 293329
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 293329

CONDITIONS

Operator:	OGRID:
OXY USA INC P.O. Box 4294 Houston, TX 772104294	16696
	Action Number: 293329
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	Remediation Closure approved. All areas not reasonably needed for production or subsequent drilling operations will need to be reclaimed and revegetated as soon as practical. Areas reasonably needed for production or subsequent drilling operations will need to be reclaimed and revegetated as soon as they are no longer reasonably needed. A report for reclamation and revegetation will need to be submitted and approved prior to this incident receiving the final status of "Restoration Complete"	12/15/2023