



ENSOLUM

CLOSURE REPORT

Property:

Gaines 22 Fed. #1

**Eddy County, New Mexico
32.197856 N, 103.977685 W
NMOCD Incident ID: nAPP2220136579
RP No.: 2RP-664
API No.: 30-015-35186**

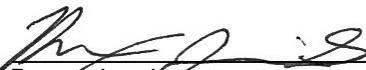
July 20, 2022

Ensolum Project No. 03B1417037

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



TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	EXECUTIVE SUMMARY	1
1.2	SITE DESCRIPTION & BACKGROUND	2
1.3	PROJECT OBJECTIVE.....	2
2.0	CLOSURE CRITERIA.....	2
3.0	SOIL REMEDIATION ACTIVITIES.....	3
4.0	SOIL SAMPLING PROGRAM.....	4
5.0	SOIL LABORATORY ANALYTICAL METHODS	4
6.0	DATA EVALUATION	4
7.0	RECLAMATION AND RE-VEGETATION	5
8.0	FINDINGS AND RECOMMENDATION	5
9.0	STANDARDS OF CARE, LIMITATIONS, AND RELIANCE.....	6
9.1	STANDARD OF CARE.....	6
9.2	LIMITATIONS	6
9.3	RELIANCE.....	7

LIST OF APPENDICES

Appendix A: Figures

Appendix B: Supporting Documentation

Appendix C: Photographic Documentation

Appendix D: Table

Appendix E: Laboratory Data Sheets & Chain-of-Custody Documentation

Appendix F: C-141



CLOSURE REPORT

Gaines 22 Fed. #1

Eddy County, New Mexico
32.197856 N, 103.977685 W
NMOCD Incident ID: nAPP2220136579
RP No.: 2RP-664
API No.: 30-015-35186

Ensolum Project No. 03B1417037

1.0 INTRODUCTION

1.1 Executive Summary

- The Gaines 22 Fed. #1, hereinafter referred to as the “Site”, is a historical release of unknown date and origin. Based on the lack of remediation information, Oxy USA Inc. (Oxy) contracted Ensolum, LLC (Ensolum) to perform sampling of the approximate spill location at the Site.
- On April 7, 2022, Ensolum arrived on-Site and collected six (6) composite soil samples from three (3) potholes that had been installed in the estimated release area with a backhoe (PH-1, PH-2 and PH-3) at depths of 0.5 to eight (8) feet below ground surface (bgs). Based on the sample analytical results, composite pothole soil samples PH-1, PH-2 and PH-3 collected at 0.5 feet bgs exhibited chloride concentrations above the default NMOCD Closure Criteria of 600 milligrams per kilogram (mg/kg).
- Due to the unknown depth to groundwater in the 0.5-mile vicinity, a depth to water soil boring was installed on May 31, 2022 by Ensolum personnel. The soil boring was installed approximately 0.2-miles northwest of the Site on Oxy property. The soil boring revealed that static groundwater was encountered at a depth of approximately 69.89’ bgs, 72-hours after the soil boring was installed. Based on the observed depth to water, the applicable NMOCD Closure Criteria of 600 mg/kg was changed to 10,000 mg/kg. Based on this, the composite pothole soil samples PH-1 and PH-2 collected at 0.5 feet bgs exhibited chloride concentrations above the applicable NMOCD Closure Criteria of 10,000 mg/kg.
- On June 13, 2022, subsequent to excavation activities, Ensolum arrived on-Site and collected one (1) composite soil sample from the excavation floor (FS-1) at a depth of 3 feet bgs, and one (1) composite soil sample from the excavation sidewall (SW-1) at a depth of 0-3 feet bgs. Based on the laboratory analytical results, no additional excavation was required.
- The primary objective of the closure activities was to reduce chemical of concern (COC) concentrations in the on-Site soils to below the applicable New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD) Closure Criteria for Soils Impacted by a Release using the New Mexico Administrative Code (NMAC) 19.15.29 *Releases* as guidance.
- The impacted area measured approximately 40 feet long and 20 feet wide at the maximum extents. The maximum depth of the impacted area measured approximately three (3) feet bgs.
- A total of eight (8) composite soil samples from five (5) locations were collected from the release area (PH-1, PH-2, PH-3, FS-1 and SW-1).

Oxy USA Inc.
 Closure Report
 Gaines 22 Fed. #1
 July 20, 2022



- Based on the laboratory analytical results, the final composite soil samples for the soils left in place did not exhibit benzene, total benzene, toluene, ethylbenzene, and xylene (BTEX), total petroleum hydrocarbons (TPH), gasoline range organics (GRO), diesel range organics (DRO), motor oil range organics (MRO) or chloride concentrations above the applicable NMOCD Closure Criteria. Subsequent to the results of the confirmation soil sampling, the identified impacted soils were removed and taken off-Site for proper disposal and the excavated area was backfilled with clean fill material, and then contoured to the original surrounding grade.

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

1.2 Site Description & Background

Operator:	Oxy USA Inc. (Oxy)
Site Name:	Gaines 22 Fed. #1
Location:	32.197856 N, 103.977685 W Eddy County, New Mexico
Property:	Private (Oxy)
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.

Oxy USA Inc.
 Closure Report
 Gaines 22 Fed. #1
 July 20, 2022



- 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 – 100 feet	Chloride	EPA 300.0 or SM4500 Cl B	10,000 mg/kg
	TPH (GRO+DRO)	EPA SW-846 Method 8015M	1,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

3.0 SOIL REMEDIATION ACTIVITIES

Due to the lack of information regarding this release, it is unknown if the impacted soil was remediated at the Site. Based on the lack of remediation information, Oxy contracted Ensolum to perform sampling of the approximate spill location at the Site.

On April 7, 2022, Ensolum arrived on-Site and collected six (6) composite soil samples from three (3) potholes that had been installed in the release area with a backhoe (PH-1, PH-2 and PH-3). The composite soil samples were collected at 0.5 feet bgs to eight (8) feet bgs, and were analyzed for BTEX, TPH GRO/DRO/MRO and chloride in accordance with NMOCD Closure Criteria for Soils Impacted by a Release (NMOCD Closure Criteria). Composite pothole soil samples PH-1 and PH-2 collected at 0.5 feet bgs exhibited chloride concentrations above the default NMOCD Closure Criteria of 10,000 mg/kg.

Oxy USA Inc.
Closure Report
Gaines 22 Fed. #1
July 20, 2022



Based on the chloride concentrations observed in composite pothole soil samples PH-1 and PH-2 collected at 0.5 feet bgs, the area was excavated to approximately three (3) feet bgs.

On June 13, 2022, subsequent to excavation activities, Ensolum arrived on-Site and collected one (1) composite soil sample from the excavation floor (FS-1) at a depth of 3 feet bgs, and one (1) composite soil sample from the excavation sidewall (SW-1) at a depth of 0-3 feet bgs. Each sample exhibited chloride concentration below the applicable NMOCD Closure Criteria of 10,000 mg/kg.

Subsequent to the results of the composite soil sampling, the identified impacted soils were removed and taken off-Site for proper disposal.

The impacted area measured approximately 40 feet long and 20 feet wide at the maximum extents. The maximum depth of the impacted area measured approximately three (3) feet bgs.

The lithology encountered during the completion of sampling activities consisted primarily of a well graded silty tan caliche from the surface to one (1) foot bgs, followed by a well graded silty sand from one (1) to three (3) 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 six (6) composite soil samples from three (3) locations (PH-1, PH-2 and PH-3) from the impacted area. Subsequent to excavation activities, one (1) composite soil sample (FS-1) was taken on the floor of the excavation and one (1) composite soil sample (SW-1) was taken from the sidewall of the excavation.

The composite soil samples were collected and placed in laboratory prepared glassware, labeled/sealed using laboratory supplied labels and custody seals, and stored on ice in a cooler. The samples were relinquished to Cardinal Laboratories in Hobbs, New Mexico for standard laboratory analysis.

5.0 SOIL LABORATORY ANALYTICAL METHODS

The composite 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-CI B.

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

6.0 DATA EVALUATION

Ensolum compared the benzene, total BTEX, TPH GRO/DRO/MRO, and chloride concentrations associated with the composite soil samples (PH-1, PH-2, PH-3, FS-1 and SW-1) to the applicable NMOCD Closure Criteria.

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

Oxy USA Inc.
Closure Report
Gaines 22 Fed. #1
July 20, 2022



- Laboratory analytical results indicate that total BTEX concentrations for the composite soil samples below the applicable NMOCD Closure Criteria of 50 mg/kg.
- Laboratory analytical results indicate combined TPH GRO/DRO concentrations for the composite soil samples are below the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 1,000 mg/kg from 50 feet – 100 feet.
- Laboratory analytical results indicate combined TPH GRO/DRO/MRO concentrations for the composite soil samples are below the laboratory SDLs and/or the applicable NMOCD Closure Criteria of 2,500 mg/kg from 50 feet – 100 feet.
- Laboratory analytical results indicate chloride concentrations for composite soil samples PH-1 and PH-2 collected at 0.5 feet bgs of 28,000 mg/kg to 34,000 mg/kg, respectively, which exceed the applicable NMOCD Closure Criteria of 10,000 mg/kg from 50 feet – 100 feet. These soils were subsequently removed and taken off-Site for proper disposal.
- Laboratory analytical results indicate chloride concentrations for composite soil samples PH-1 and PH-2 collected at 8 feet bgs, and PH-3 collected at 0.5 and 2 feet bgs ranging from 128 mg/kg to 2,400 mg/kg, which are below the applicable NMOCD Closure Criteria of 10,000 mg/kg from 50 feet – 100 feet.
- Based on the chloride concentrations observed in composite pothole soil samples PH-1 and PH-2 collected at 0.5 feet bgs, the area was excavated to approximately three (3) feet bgs. Subsequent to excavation activities, one (1) composite soil sample (FS-1) was taken on the floor of the excavation and one (1) composite soil sample (SW-1) was taken from the sidewall of the excavation. Each sample exhibited chloride concentration below the applicable NMOCD Closure Criteria of 10,000 mg/kg.

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

7.0 RECLAMATION AND RE-VEGETATION

Subsequent to the results of the pothole and excavation soil sampling, the identified impacted soils were removed and taken off-Site for proper disposal. The excavated area was backfilled with clean fill material, topped with gravel, and then contoured to the original surrounding grade.

8.0 FINDINGS AND RECOMMENDATION

- On April 7, 2022, Ensolum arrived on-Site and collected six (6) composite soil samples from three (3) potholes that had been installed in the estimated release area with a backhoe (PH-1, PH-2 and PH-3) at depths of 0.5 to eight (8) feet bgs. Based on the sample analytical results, composite pothole soil samples PH-1, PH-2 and PH-3 collected at 0.5 feet bgs exhibited chloride concentrations above the default NMOCD Closure Criteria of 600 mg/kg.
- Due to the unknown depth to groundwater in the 0.5-mile vicinity, a depth to water soil boring was installed on May 31, 2022 by Ensolum personnel. The soil boring was installed approximately 0.2-miles northwest of the Site on Oxy property. The soil boring revealed that static groundwater was encountered at a depth of approximately 69.89' bgs, 72-hours after the soil boring was installed. Based on the observed depth to water, the applicable NMOCD Closure Criteria of 600 mg/kg was changed to 10,000 mg/kg. Based on this, the composite pothole soil samples PH-1 and PH-2 collected at 0.5 feet bgs exhibited chloride concentrations above the applicable NMOCD Closure Criteria of 10,000 mg/kg.

Oxy USA Inc.
Closure Report
Gaines 22 Fed. #1
July 20, 2022



- On June 13, 2022, subsequent to excavation activities, Ensolum arrived on-Site and collected one (1) composite soil sample from the excavation floor (FS-1) at a depth of 3 feet bgs, and one (1) composite soil sample from the excavation sidewall (SW-1) at a depth of 0-3 feet bgs. Based on the laboratory analytical results, no additional excavation was required.
- The primary objective of the closure activities was to reduce COC concentrations in the on-Site soils to below the applicable New Mexico EMNRD OCD Closure Criteria for Soils Impacted by a Release using the NMAC 19.15.29 *Releases* as guidance.
- The impacted area measured approximately 40 feet long and 20 feet wide at the maximum extents. The maximum depth of the impacted area measured approximately three (3) feet bgs.
- A total of eight (8) composite soil samples from five (5) locations were collected from the release area (PH-1, PH-2, PH-3, FS-1 and SW-1).
- Based on the laboratory analytical results, the final composite soil samples for the soils left in place did not exhibit benzene, BTEX, TPH GRO/DRO/MRO or chloride concentrations above the applicable NMOCD Closure Criteria. Subsequent to the results of the confirmation soil sampling, the identified impacted soils were removed and taken off-Site for proper disposal and the excavated area was backfilled with clean fill material, and then contoured to the original surrounding grade.

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

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.

Oxy USA Inc.
Closure Report
Gaines 22 Fed. #1
July 20, 2022



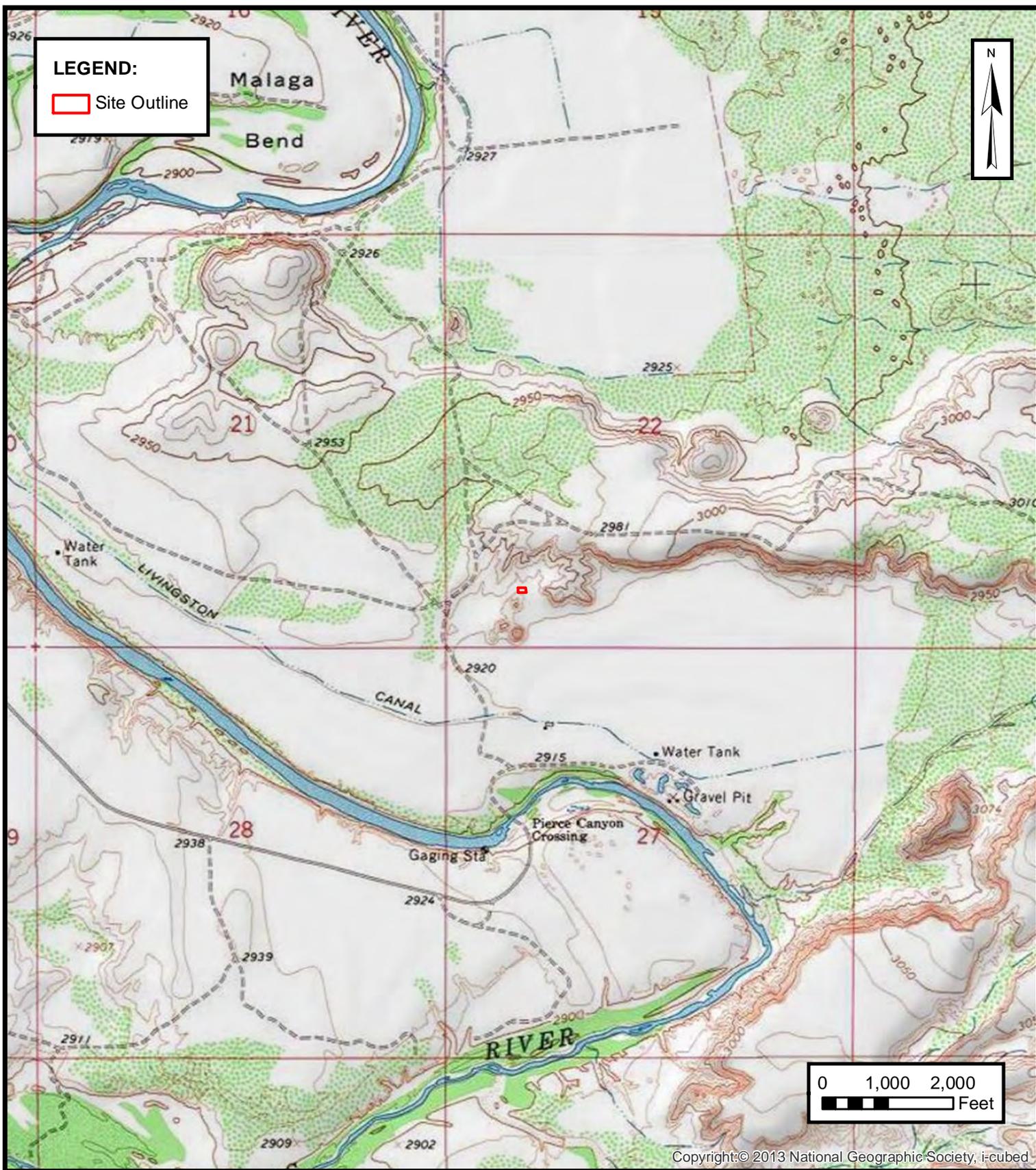
9.3 Reliance

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



APPENDIX A

Figures



Copyright:© 2013 National Geographic Society, i-cubed

ENSOLUM
 Environmental & Hydrogeologic Consultants

TOPOGRAPHIC MAP

OXY USA INC.
 GAINES 22 FED #1
 Eddy County, New Mexico
 32.197856° N, 103.977685° W

PROJECT NUMBER: 03B1417037

FIGURE
1



ENSOLUM
 Environmental & Hydrogeologic Consultants

SITE VICINITY MAP

OXY USA INC.
 GAINES 22 FED #1
 Eddy County, New Mexico
 32.197856° N, 103.977685° W

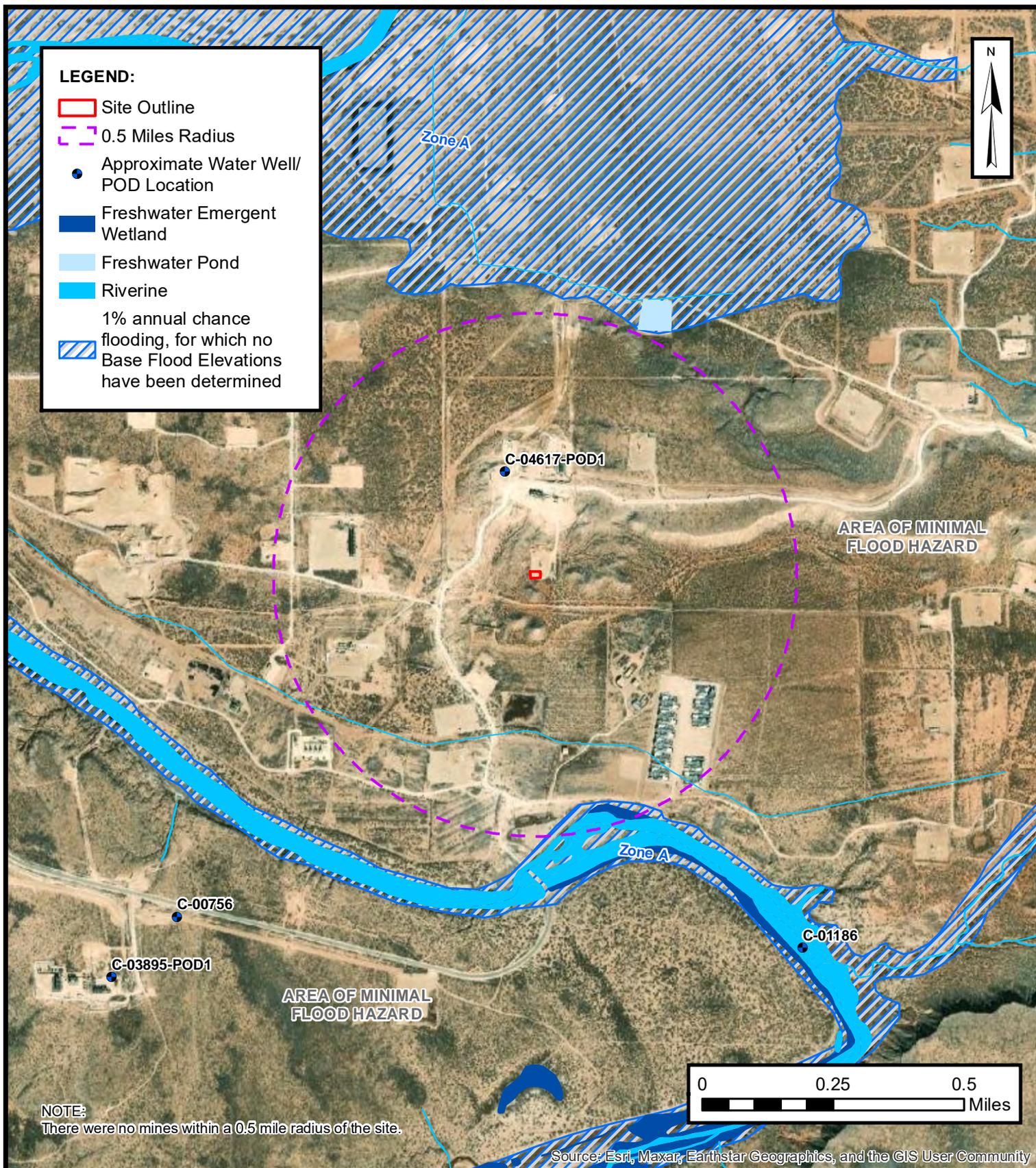
PROJECT NUMBER: 03B1417037

FIGURE
2



SITE MAP
OXY USA INC.
GAINES 22 FED #1
Eddy County, New Mexico
32.197856° N, 103.977685° W
PROJECT NUMBER: 03B1417037

FIGURE
3



CLOSURE CRITERIA MAP

OXY USA INC.
 GAINES 22 FED #1
 Eddy County, New Mexico
 32.197856° N, 103.977685° W

PROJECT NUMBER: 03B1417037

FIGURE
4



APPENDIX B

Supporting Documentation

Beaux Jennings

From: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Sent: Tuesday, April 5, 2022 8:49 AM
To: Beaux Jennings
Cc: Bratcher, Mike, EMNRD; Hensley, Chad, EMNRD; Velez, Nelson, EMNRD; Nobui, Jennifer, EMNRD
Subject: RE: [EXTERNAL] Gaines 22 Federal #1 (RP No. 2RP-664)

Beaux,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Sent: Friday, April 1, 2022 2:52 PM
To: Hensley, Chad, EMNRD <Chad.Hensley@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Subject: Fw: [EXTERNAL] Gaines 22 Federal #1 (RP No. 2RP-664)

From: Beaux Jennings <bjennings@ensolum.com>
Sent: Friday, April 1, 2022 2:07 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Subject: [EXTERNAL] Gaines 22 Federal #1 (RP No. 2RP-664)

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

Good Afternoon,

On behalf of Oxy USA Inc, Ensolum, LLC would like to provided notification for characterization sampling activities that will be conducted at the Gaines 22 Federal #1 (RP No. 2RP-664). The characterization samples may be used for closure, provided that they meet applicable closure limits.

Thank you,



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

Beaux Jennings

From: Beaux Jennings
Sent: Thursday, June 9, 2022 12:16 PM
To: OCD.Enviro@state.nm.us
Subject: Gaines 22 Fed #1 (RP No. 2RP-664)

Good Afternoon,

On behalf of Oxy USA Inc, Ensolum, LLC would like to provide notification for sampling activities that will be conducted at the Gaines 22 Fed #1 (RP No. 2RP-664) on Monday, June 13th at 1pm. The samples may be used for closure, provided that they meet applicable closure limits.

Thank you,



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

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: 725746
File Nbr: C 04617
Well File Nbr: C 04617 POD1

Jun. 28, 2022

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

Greetings:

The above numbered permit was issued in your name on 05/13/2022.

The Well Record was received in this office on 06/28/2022, stating that it had been completed on 05/31/2022, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 05/13/2023.

If you have any questions, please feel free to contact us.

Sincerely,

Maret Amaral
(575) 622-6521

drywell



New Mexico Office of the State Engineer

Transaction Summary

EXPL Permit To Explore

Transaction Number: 725746 **Transaction Desc:** C 04617 POD1 **File Date:** 05/09/2022

Primary Status: PMT Permit
Secondary Status: APR Approved
Person Assigned: *****
Applicant: OXY USA INC
Contact: WADE DITTRICH
Applicant: ENSOLUM LLC
Contact: BEAUX JENNINGS

Events

Date	Type	Description	Comment	Processed By
 05/09/2022	APP	Application Received	*	*****
 05/09/2022	TEC	Technical Report	*PLG PLN OPS C-	*****
05/13/2022	FTN	Finalize non-published Trans.		*****
06/16/2022	QAT	Quality Assurance Completed	SQ2	*****
06/23/2022	QAT	Quality Assurance Completed	IMAGE/WELL	*****
06/23/2022	QAT	Quality Assurance Completed	IMAGE/PLUGGING	*****
06/28/2022	LOG	Well Log Received	*C-4617-POD1 (SB-	*****
06/28/2022	DRY	Dry well log received	C-4617-POD1 (SB-1)	*****

Water Right Information

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
C 04617	0	0		EXP EXPLORATION
**Point of Diversion				
C 04617 POD1		596241	3563113 	

Remarks

"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 72 HOURS, GAUGED WITH A WATER LEVEL METER TO CHECK FOR POTENTIAL GROUNDWATER, THEN"

"PLUGGED IN ACCORDANCE WITH THE ASSOCIATED WELL PLUGGING PLAN OF OPERATIONS."

Conditions

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- 4 No water shall be appropriated and beneficially used under this permit.

- 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.
- 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.
- 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.
- 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
- 7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.
- 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.
- 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.
- 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.
- Q The State Engineer retains jurisdiction over this permit.
- 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.

Action of the State Engineer

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.

**** See Image For Any Additional Conditions of Approval ****

Approval Code: A - Approved

Action Date: 05/13/2022

Log Due Date: 05/13/2023

State Engineer: Mike A. Hamman, P.

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

7/18/22 9:41 AM

TRANSACTION SUMMARY

File No. **C-04617**

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:	<input type="checkbox"/> Pollution Control And/Or Recovery	<input type="checkbox"/> Ground Source Heat Pump
<input type="checkbox"/> Exploratory Well (Pump test)	<input type="checkbox"/> Construction Site/Public Works Dewatering	<input checked="" type="checkbox"/> Other(Describe): Investigation Soil Boring
<input type="checkbox"/> Monitoring Well	<input type="checkbox"/> Mine Dewatering	
A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.		
<input type="checkbox"/> Temporary Request - Requested Start Date: 5/1/22		Requested End Date: 5/31/22
Plugging Plan of Operations Submitted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

1. APPLICANT(S)

Name: Oxy USA Inc.	Name: Ensolum, LLC
Contact or Agent: <input type="checkbox"/> check here if Agent	Contact or Agent: <input checked="" type="checkbox"/> check here if Agent
Mr. Wade Dittrich	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 <input type="checkbox"/> Home <input checked="" type="checkbox"/> Cell	Phone: 210-219-8858 <input type="checkbox"/> Home <input checked="" type="checkbox"/> Cell
Phone (Work):	Phone (Work):
E-mail (optional): wade_dittrich@oxy.com	E-mail (optional): bjennings@ensolum.com

OSE OIT MAY 9 2022 AM 9:32

FOR OSE INTERNAL USE

Application for Permit, Form WR-07, Rev 11/17/16

File No.: C-04617	Trm. No.: 725746	Receipt No.: 2-44553
Trans Description (optional): 22 245 29E 3.1.3		
Sub-Basin: C	PCW/LOG Due Date: 5/13/23	

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) UTM (NAD83) (Meters) Lat/Long (WGS84) (to the nearest 1/10th of second)
 NM West Zone Zone 12N
 NM East Zone Zone 13N
 NM Central Zone

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
C-04617-POD SB-1	-103.978888	32.200470	SW NW 1/4 of SW 1/4 of S22, T24S, R29E

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' due west of on-site oil and gas well.

Well is on land owned by: ~~Private~~ OXY USA INC

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 72 hours, gauged with a water level meter to check for potential groundwater, then plugged in accordance with the associated Well Plugging Plan of Operations.

OSE DIT MAY 9 2022 AM 9:32

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.: C-04617	Tm No.: 725740
-------------------	----------------

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

ACKNOWLEDGEMENT

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

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

Wade Dittrich
Applicant Signature

Beaux Jennings Digitally signed by Beaux Jennings
Date: 2022.04.25 16:24:05 -05'00'
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 13 day of May 20 22, for the State Engineer,

Mike Hamman, P.E. State Engineer

OSE DIT MAY 9 2022 AM 9:32

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.: <u>C-04617</u>	Trn No.: <u>725746</u>
--------------------------	------------------------

**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 04617 POD1

File Number: C 04617

Trn Number: 725746

**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.

Trn Desc: C 04617 POD1

File Number: C 04617

Trn Number: 725746

page: 2

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 04617 POD1 must be completed and the Well Log filed on or before 05/13/2023.

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: 05/09/2022	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 13 day of May A.D., 2022

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

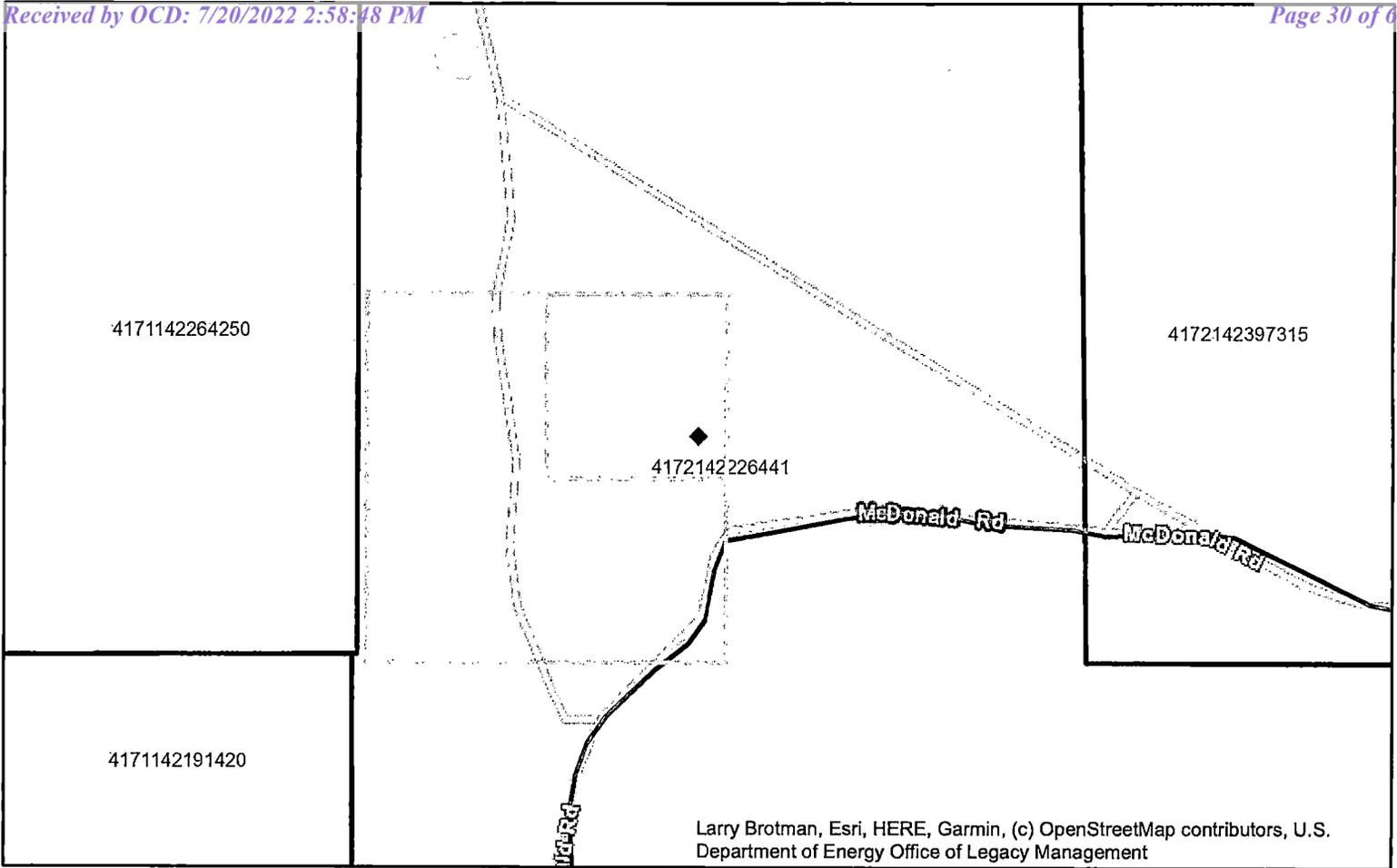
By: K. Parekh
KASHYAP PAREKH



Trn Desc: C 04617 POD1

File Number: C 04617

Trn Number: 725746

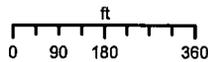


Larry Brotman, Esri, HERE, Garmin, (c) OpenStreetMap contributors, U.S. Department of Energy Office of Legacy Management

Coordinates
UTM - NAD 83 (m) - Zone 13
 Easting 596242.135
 Northing 3563113.078
State Plane - NAD 83 (f) - Zone E
 Easting 650974.751
 Northing 436844.054
Degrees Minutes Seconds
 Latitude 32 : 12 : 1.692000
 Longitude -103 : 58 : 43.996800
 Location pulled from Coordinate Search

NEW MEXICO OFFICE OF THE STATE ENGINEER

1:4,514



M. TELLES 5/13/2022



Reasonable efforts have been made by the New Mexico Office of the State Engineer (OSE) to verify that these maps accurately integrate the source data used in their preparation; however, a degree of error is inherent in all maps, and these maps may contain omissions and errors in scale, resolution, registration, positional accuracy, development methodology, interpretation of source data, and other circumstances. These maps are distributed "as is" without warranty of any kind.

Spatial Information
 County: Eddy
 Groundwater Basin: Carlsbad
 Abstract Area: Carlsbad 72-12-1
 Carlsbad Underground Basin
 Land Grant:
 Not in Land Grant
 Restrictions:
 NA
PLSS Description
 NESWNWSW Qtr of Sec 22 of 024S 029E
 Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

Parcel Information
 UPC/DocNum: 4172142226441
 Parcel Owner: Oxy Usa Inc
 Address: Mc Donald Road Carlsbad 88220
 Legal: Quarter: Sw S: 22 T: 24S R: 29E S2sw, W2Sw,
 Quarter: Se S: 22 T: 24S R: 29E S2Se ,

POD Information
 Owner:
 File Number:
 POD Status: NoData
 Permit Status: NoData
 Permit Use: NoData
 Purpose:

- | | | | | | | |
|---|---|--|---|---|---|---|
| <input type="checkbox"/> Calculated PLSS | <input type="checkbox"/> Cibola County Parcels 2021 | <input type="checkbox"/> Grant County Parcels 2021 | <input type="checkbox"/> Los Alamos County Parcels 2021 | <input type="checkbox"/> Rio Arriba County Parcels 2021 | <input type="checkbox"/> Santa Fe County Parcels 2021 | <input type="checkbox"/> Valencia County Parcels 2021 |
| <input type="checkbox"/> Coord Search Location | <input type="checkbox"/> Colfax County Parcels 2021 | <input type="checkbox"/> Harding County Parcels 2021 | <input type="checkbox"/> Luna County Parcels 2021 | <input type="checkbox"/> Roosevelt County Parcels 2021 | <input type="checkbox"/> Sierra County Parcels 2021 | <input type="checkbox"/> SiteBoundaries |
| <input type="checkbox"/> OSE District Boundary | <input type="checkbox"/> Curry County Parcels 2021 | <input type="checkbox"/> Hidalgo County Parcels 2021 | <input type="checkbox"/> McKinley County Parcels 2021 | <input type="checkbox"/> Sandoval County Parcels 2021 | <input type="checkbox"/> Socorro County Parcels 2021 | |
| <input type="checkbox"/> Bernalillo County Parcels 2021 | <input type="checkbox"/> De Baca County Parcels 2021 | <input type="checkbox"/> Guadalupe County Parcels 2021 | <input type="checkbox"/> Mora County Parcels 2021 | <input type="checkbox"/> San Juan County Parcels 2021 | <input type="checkbox"/> Taos County Parcels 2021 | |
| <input type="checkbox"/> Catron County Parcels 2021 | <input type="checkbox"/> Doña Ana County Parcels 2021 | <input type="checkbox"/> Lea County Parcels 2021 | <input type="checkbox"/> Otero County Parcels 2021 | <input type="checkbox"/> San Miguel County Parcels 2021 | <input type="checkbox"/> Torrance County Parcels 2021 | |
| <input type="checkbox"/> Chaves County Parcels 2021 | <input type="checkbox"/> Eddy County Parcels 2021 | <input type="checkbox"/> Lincoln County Parcels 2021 | <input type="checkbox"/> Quay County Parcels 2021 | <input type="checkbox"/> Union County Parcels 2021 | | |

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: 725746
File Nbr: C 04617

May. 13, 2022

WADE DITTRICH
OXY USA INC
PO 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,

A handwritten signature in blue ink, appearing to read "Megan Telles".

Megan Telles
(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: 725746
File Nbr: C 04617

May. 13, 2022

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

Greetings:

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

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

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

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Megen Telles".

Megen Telles
(575) 622-6521

Enclosure

explore



WELL PLUGGING PLAN OF OPERATIONS



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

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

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

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

Existing Office of the State Engineer POD Number (Well Number) for well to be plugged: POD1 (SB-1) C-4617-POA

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, 12 min, 1.692 sec
Longitude: -103 deg, 58 min, 43.9962 sec, NAD 83

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

Investigation soil boring to determine groundwater level.
OSE DIT MAY 9 2022 AM 9:32

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

OSE OIT MAY 9 2022 AM 9:32

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.

Wade Dittrich

4/25/2022

Signature of Applicant

Date

IX. ACTION OF THE STATE ENGINEER:

This Well Plugging Plan of Operations is:

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

OSE DTI MAY 9 2022 AM 9:32

Witness my hand and official seal this 13th day of May, 2022

Mike A. Nammor
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

OSE OIT MAY 9 2022 AM 9:32

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 MAY 9 2022 09:32



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

May 13, 2022

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

RE: Well Plugging Plan of Operations for **C-4617-POD1**

Greetings:

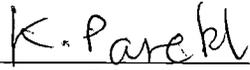
Enclosed is your copy of the Well Plugging Plan of Operations for the above referenced project. The proposed method of operation is found to be acceptable and in accordance with the Rules and Regulations Governing Well Driller Licensing; Construction, Repair and Plugging of Wells 19.27.4 NMAC adopted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

- (1) Plugging operations shall also be conducted in accordance with NMED, NMOCD, or other State or Federal agencies having oversight for the above described project.
- (2) In accordance with Subsection A of 19.27.4.29 NMAC, on-site supervision of well drilling/plugging by the holder of a New Mexico Well Driller License or a NMOSE-registered Drill Rig Supervisor is required. The New Mexico licensed Well Driller shall ensure that well drilling activities are completed in accordance with 19.27.4.29, 19.27.4.30, 19.27.4.31, 19.27.4.33 NMAC, and all specific conditions of approval. While conducting the well drilling activities, the Well Driller shall maintain a copy of the approved permit, conditions and Well Plugging Plan of Operations on-site and available for inspection upon request.
- (3) No more than 6.0 gallons water per 94 lb. sack of neat cement slurry.
- (4) Any deviation from this plan must obtain an approved variance from this office prior to implementation.

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>. Three copies of the Well Plugging Plan of Operations form (WD-08) must be submitted.

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

Sincerely,



Kashyap Parekh

Water Resources Manager I

20
Cul

Location GMINES 22 FED #1

Date 4-7-22

Project / Client OX4 / POTHOLE DELINEATION

(32.197856, -103.977685)

0645	PREP DOCS/EQUIP, GET ICE
0700	TRAVEL TO SITE
0800	ENSOLUM ON SITE, TEX MEX ON SITE W/BACKHOE
0830	SIGNED JSA/TAILGATE, BEGIN SAMPLING
11:00	SPOKE W/PM (BEAUX) ON RESULTS, WILL STOP AND SUBMIT SAMPLES
11:15	TEX-MEX BACKFILL POTHOLES
11:20	LABEL/JAR SAMPLES
11:30	TEX MEX /ENSOLUM OFFSITE

SAMPLE	TIME	[FT] DEPTH	[PPM] CI	STAIN/ODOR	DESCRIPTION
PH-1		6'	3,001.6	N/N	SP-SM, RD BRN-BRN, V. FINE-FINE GRAIN
PH-2		6'	3,460.8	N/N	SAA
PH-1	09:30	8'	1,512	N/N	SP, RD-BRN, V. FINE-FINE GRAIN
PH-2	09:45	8'	2,441.6	N/N	SAA

~~Cul~~ 4-7-22

BILLING: TRUCK, CI STRIPS, SOIL SAMPLE FILTERS, KIT

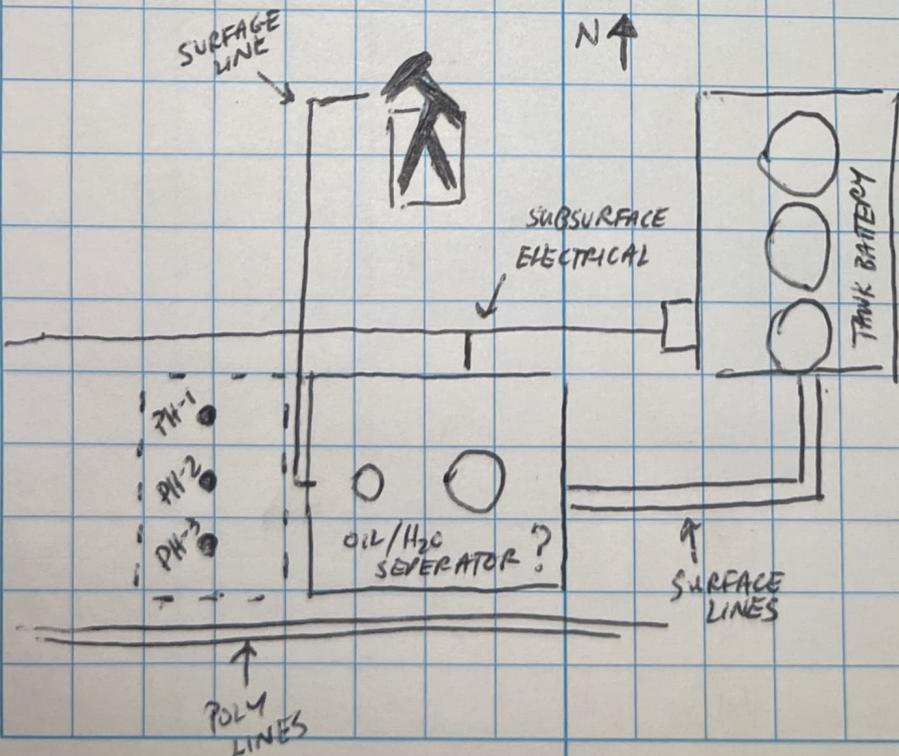
Cul

Location GAINES 22 FED #1

Date 4-7-22

Project / Client OX4 / POT HOLE DELINEATION CONTINUED.

SAMPLE	TIME	[F#] DEPTH	[PPM] Cl ⁻	STAIN/ ODOR	DESCRIPTION
PH-1	09:00	0.5'	19,840.8	N/N	CCHE, TAN-BRN, WELL GRADED, FINE-MD GRAIN, W/SILT
		1'	2,615.2	N/N	SP-SM, RD BRN-BRN, V. FINE-FINE GRAIN
		2'	2,133.6	N/N	SAA
		3'	2,441.6	N/N	SAA
		4'	1,741.6		SAA
PH-2	09:15	0.5'	24,606.4	N/N	CCHE, TAN-BRN, WELL GRADED, FINE-MD GRAIN, W/SILT
		1'	8,299.2	N/N	SP-SM, RD BRN-BRN, V. FINE-FINE GRAIN
		2'	10,556	N/N	SAA
		3'	1,624	N/N	SAA
		4'	3,763.2		SAA
PH-3	09:50	0.5'	1,741.6	N/N	CCHE, TAN-BRN, WELL GRADED, FINE-MD GRAIN, W/SILT
		1'	532	N/N	SP-SM, RD BRN-BRN, V. FINE-FINE GRAIN
		2'	<168	N/N	SAA



Handwritten signature
Rite in the Rain



APPENDIX C

Photographic Documentation



View of the release area, facing north west.



View of the excavated release area, facing east.



APPENDIX D

Tables

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 Oxy USA Inc. - Gaines 22 Fed #1
 Eddy County, New Mexico
 Ensolum Project No. 03B1417037

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 - 100 feet)			10	NE	NE	NE	50	1,000		NE	2,500	10,000
Pothole Sample Analytical Results												
PH-1	4/7/2022	0.5	<0.050	<0.050	<0.050	0.167	<0.300	89.3	17.3	107	28,000	
		8	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	1,820	
PH-2	4/7/2022	0.5	<0.050	<0.050	0.087	0.406	0.493	211	56.4	267	34,000	
		8	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	2,400	
PH-3	4/7/2022	0.5	<0.050	0.058	0.160	0.799	1.02	<10.0	<10.0	<10.0	1,260	
		2	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	128	
Composite Floor Sample Analytical Results												
FS-1	6/13/2022	3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	2,480	
Sidewall Sample Analytical Results												
SW-1	6/13/2022	0 - 3	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	560	

Concentrations in **bold** and yellow exceed the New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (50 feet - 100 feet)

 Over Ecavated and/or Re-Sampled

bgs: below ground surface

mg/kg: milligrams per kilogram

NE: Not Established

NS: Not Sampled

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

MRO: Motor Oil/Lube Oil Range Organics

TPH: Total Petroleum Hydrocarbon



APPENDIX E

Laboratory Data Sheets and Chain-of-Custody Documentation



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

April 11, 2022

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

RE: GAINES 22 FED #1

Enclosed are the results of analyses for samples received by the laboratory on 04/07/22 13:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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 accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene
Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	04/07/2022	Sampling Date:	04/07/2022
Reported:	04/11/2022	Sampling Type:	Soil
Project Name:	GAINES 22 FED #1	Sampling Condition:	Cool & Intact
Project Number:	03B1417	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

Sample ID: PH - 1 0.5' (H221415-01)

BTEX 8021B		mg/kg		Analyzed By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/09/2022	ND	2.08	104	2.00	2.96	
Toluene*	<0.050	0.050	04/09/2022	ND	2.08	104	2.00	2.94	
Ethylbenzene*	<0.050	0.050	04/09/2022	ND	1.98	99.0	2.00	2.86	
Total Xylenes*	0.167	0.150	04/09/2022	ND	6.14	102	6.00	3.16	
Total BTEX	<0.300	0.300	04/09/2022	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	28000	16.0	04/11/2022	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/09/2022	ND	185	92.7	200	7.37	
DRO >C10-C28*	89.3	10.0	04/09/2022	ND	174	86.8	200	9.93	
EXT DRO >C28-C36	17.3	10.0	04/09/2022	ND					

Surrogate: 1-Chlorooctane 71.1 % 66.9-136

Surrogate: 1-Chlorooctadecane 76.2 % 59.5-142

Cardinal Laboratories

*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	04/07/2022	Sampling Date:	04/07/2022
Reported:	04/11/2022	Sampling Type:	Soil
Project Name:	GAINES 22 FED #1	Sampling Condition:	Cool & Intact
Project Number:	03B1417	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

Sample ID: PH - 1 8' (H221415-02)

BTEX 8021B		mg/kg		Analyzed By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/09/2022	ND	2.08	104	2.00	2.96	
Toluene*	<0.050	0.050	04/09/2022	ND	2.08	104	2.00	2.94	
Ethylbenzene*	<0.050	0.050	04/09/2022	ND	1.98	99.0	2.00	2.86	
Total Xylenes*	<0.150	0.150	04/09/2022	ND	6.14	102	6.00	3.16	
Total BTEX	<0.300	0.300	04/09/2022	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1820	16.0	04/11/2022	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/09/2022	ND	185	92.7	200	7.37	
DRO >C10-C28*	<10.0	10.0	04/09/2022	ND	174	86.8	200	9.93	
EXT DRO >C28-C36	<10.0	10.0	04/09/2022	ND					

Surrogate: 1-Chlorooctane 91.0 % 66.9-136

Surrogate: 1-Chlorooctadecane 92.5 % 59.5-142

Cardinal Laboratories

*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 04/07/2022
 Reported: 04/11/2022
 Project Name: GAINES 22 FED #1
 Project Number: 03B1417
 Project Location: OXY

Sampling Date: 04/07/2022
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: PH - 2 0.5' (H221415-03)

BTEX 8021B		mg/kg		Analyzed By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/09/2022	ND	2.08	104	2.00	2.96	
Toluene*	<0.050	0.050	04/09/2022	ND	2.08	104	2.00	2.94	
Ethylbenzene*	0.087	0.050	04/09/2022	ND	1.98	99.0	2.00	2.86	
Total Xylenes*	0.406	0.150	04/09/2022	ND	6.14	102	6.00	3.16	
Total BTEX	0.493	0.300	04/09/2022	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	34000	16.0	04/11/2022	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/09/2022	ND	185	92.7	200	7.37	
DRO >C10-C28*	211	10.0	04/09/2022	ND	174	86.8	200	9.93	
EXT DRO >C28-C36	56.4	10.0	04/09/2022	ND					

Surrogate: 1-Chlorooctane 91.4 % 66.9-136

Surrogate: 1-Chlorooctadecane 125 % 59.5-142

Cardinal Laboratories

* = Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	04/07/2022	Sampling Date:	04/07/2022
Reported:	04/11/2022	Sampling Type:	Soil
Project Name:	GAINES 22 FED #1	Sampling Condition:	Cool & Intact
Project Number:	03B1417	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

Sample ID: PH - 2 8' (H221415-04)

BTEX 8021B		mg/kg		Analyzed By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/09/2022	ND	2.08	104	2.00	2.96	
Toluene*	<0.050	0.050	04/09/2022	ND	2.08	104	2.00	2.94	
Ethylbenzene*	<0.050	0.050	04/09/2022	ND	1.98	99.0	2.00	2.86	
Total Xylenes*	<0.150	0.150	04/09/2022	ND	6.14	102	6.00	3.16	
Total BTEX	<0.300	0.300	04/09/2022	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2400	16.0	04/11/2022	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/09/2022	ND	185	92.7	200	7.37	
DRO >C10-C28*	<10.0	10.0	04/09/2022	ND	174	86.8	200	9.93	
EXT DRO >C28-C36	<10.0	10.0	04/09/2022	ND					

Surrogate: 1-Chlorooctane 88.9 % 66.9-136

Surrogate: 1-Chlorooctadecane 92.0 % 59.5-142

Cardinal Laboratories

*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 04/07/2022
 Reported: 04/11/2022
 Project Name: GAINES 22 FED #1
 Project Number: 03B1417
 Project Location: OXY

Sampling Date: 04/07/2022
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: PH - 3 0.5' (H221415-05)

BTEX 8021B		mg/kg		Analyzed By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/09/2022	ND	2.14	107	2.00	1.08	QR-03
Toluene*	0.058	0.050	04/09/2022	ND	2.14	107	2.00	1.20	QR-03
Ethylbenzene*	0.160	0.050	04/09/2022	ND	2.03	101	2.00	0.249	QR-03
Total Xylenes*	0.799	0.150	04/09/2022	ND	6.25	104	6.00	0.580	QR-03
Total BTEX	1.02	0.300	04/09/2022	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1260	16.0	04/11/2022	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/09/2022	ND	185	92.7	200	7.37	
DRO >C10-C28*	<10.0	10.0	04/09/2022	ND	174	86.8	200	9.93	
EXT DRO >C28-C36	<10.0	10.0	04/09/2022	ND					

Surrogate: 1-Chlorooctane 78.5 % 66.9-136

Surrogate: 1-Chlorooctadecane 79.3 % 59.5-142

Cardinal Laboratories

*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	04/07/2022	Sampling Date:	04/07/2022
Reported:	04/11/2022	Sampling Type:	Soil
Project Name:	GAINES 22 FED #1	Sampling Condition:	Cool & Intact
Project Number:	03B1417	Sample Received By:	Tamara Oldaker
Project Location:	OXY		

Sample ID: PH - 3 2' (H221415-06)

BTEX 8021B		mg/kg		Analyzed By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/09/2022	ND	2.14	107	2.00	1.08	
Toluene*	<0.050	0.050	04/09/2022	ND	2.14	107	2.00	1.20	
Ethylbenzene*	<0.050	0.050	04/09/2022	ND	2.03	101	2.00	0.249	
Total Xylenes*	<0.150	0.150	04/09/2022	ND	6.25	104	6.00	0.580	
Total BTEX	<0.300	0.300	04/09/2022	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	04/11/2022	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/09/2022	ND	185	92.7	200	7.37	
DRO >C10-C28*	<10.0	10.0	04/09/2022	ND	174	86.8	200	9.93	
EXT DRO >C28-C36	<10.0	10.0	04/09/2022	ND					

Surrogate: 1-Chlorooctane 89.3 % 66.9-136

Surrogate: 1-Chlorooctadecane 93.7 % 59.5-142

Cardinal Laboratories

*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: **ENSOLVUM**
 Project Manager: **BEVUX JENNINGS**
 Address: **705 W WADLEY AVE, SUITE 240**
 City: **MIDLAND** State: **TX** Zip:
 Phone #: **(810) 219-8858** Fax #:
 Project #: **03B1417** Project Owner:
 Project Name: **GRAVES 22 FED #1**
 Project Location:
 Sampler Name: **GUBERT MARENDO**
 P.O. #: Company: **OKY**
 Attn: **WADE DIRRICH**
 Address:
 City: State: Zip:
 Phone #: **(575) 390-2828**
 Fax #:

Lab I.D.	Sample I.D.	(F)	DEPTH	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	TPH (8015 M)	BTEX	CHLORIDES (900.0) 4500
						GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
	PH-1	0.5'										4-7-22	09:00			
	PH-2	8'										4-7-22	09:30			
	PH-2	0.5'										4-7-22	09:15			
	PH-2	8'										4-7-22	09:45			
	PH-3	0.5'										4-7-22	09:50			
	PH-3	2'										4-7-22	09:55			

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

Relinquished By: *[Signature]* Date: **4-7-22** Time: **1340**
 Received By: *[Signature]* Date: **4-9-22** Time: **1340**
 Verbal Result: Yes No Add'l Phone #:
 All Results are emailed. Please provide Email address: **JENNINGS@ENSOLVUM.COM, WADE DIRRICH**
 REMARKS:

Delivered By: (Circle One) Observed Temp.: **5.7** Sample Condition: Intact Not Intact
 Corrected Temp.: **5.2** Checked By: (Initials) **Y**
 Turnaround Time: **Standard** **Rush**
 Thermometer ID #113 Bacteria (only) Sample Condition: Intact Not Intact
 Correction Factor -0.5°C Yes No Yes No No
 Corrected Temp.: **5.2**



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

June 17, 2022

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

RE: GAINES 22 FED #1

Enclosed are the results of analyses for samples received by the laboratory on 06/13/22 14:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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 accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene
Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 06/13/2022
 Reported: 06/17/2022
 Project Name: GAINES 22 FED #1
 Project Number: 03B1417037
 Project Location: OXY - EDDY CO., NM

Sampling Date: 06/13/2022
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: FS - 1 3' (H222520-01)

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	06/14/2022	ND	2.17	109	2.00	0.275	
Toluene*	<0.050	0.050	06/14/2022	ND	2.14	107	2.00	1.67	
Ethylbenzene*	<0.050	0.050	06/14/2022	ND	2.09	104	2.00	2.04	
Total Xylenes*	<0.150	0.150	06/14/2022	ND	6.48	108	6.00	2.20	
Total BTEX	<0.300	0.300	06/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2480	16.0	06/14/2022	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/16/2022	ND	183	91.4	200	5.49	
DRO >C10-C28*	<10.0	10.0	06/16/2022	ND	185	92.4	200	1.83	
EXT DRO >C28-C36	<10.0	10.0	06/16/2022	ND					

Surrogate: 1-Chlorooctane 121 % 66.9-136

Surrogate: 1-Chlorooctadecane 124 % 59.5-142

Cardinal Laboratories

* = Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 06/13/2022
 Reported: 06/17/2022
 Project Name: GAINES 22 FED #1
 Project Number: 03B1417037
 Project Location: OXY - EDDY CO., NM

Sampling Date: 06/13/2022
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW - 1 0- 3' (H222520-02)

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	06/14/2022	ND	2.17	109	2.00	0.275	
Toluene*	<0.050	0.050	06/14/2022	ND	2.14	107	2.00	1.67	
Ethylbenzene*	<0.050	0.050	06/14/2022	ND	2.09	104	2.00	2.04	
Total Xylenes*	<0.150	0.150	06/14/2022	ND	6.48	108	6.00	2.20	
Total BTEX	<0.300	0.300	06/14/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	06/14/2022	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/14/2022	ND	183	91.4	200	5.49	
DRO >C10-C28*	<10.0	10.0	06/14/2022	ND	185	92.4	200	1.83	
EXT DRO >C28-C36	<10.0	10.0	06/14/2022	ND					

Surrogate: 1-Chlorooctane 72.6 % 66.9-136

Surrogate: 1-Chlorooctadecane 80.9 % 59.5-142

Cardinal Laboratories

* = Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service.

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: Ensolum, LLC
 Project Manager: Beaux Jennings
 Address: 601 N Marientfeld Street, Suite 400
 City: Midland State: TX Zip: 79701
 Phone #: 210-219-8858 Fax #:
 Project #: 03BIA7037 Project Owner:
 Project Name: Gaines R2 Ed. #1
 Project Location: Eddy County
 Sampler Name: Beaux Jennings
 P.O. #:
 Company: Oxy USA Inc.
 Attn: Wade Dittrich
 Address:
 City:
 State:
 Zip:
 Phone #: 575-390-2828
 Fax #:

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:			ICE / COOL
1000550	FS-1	3'	G	1			X					6/13/22	1115	BTEX SW-846 #8021B
	SW-1	0'-3'	C	1			X					6/13/22	1120	TPH SW-846 #8015M
														Chloride 4500

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

Relinquished By:
 Date: 6/13/22
 Time: 1440
 Received By:
 Date:
 Time:
 Relinquished By:
 Date:
 Time:
 Received By:

Delivered By: (Circle One) UPS Bus Other:
 Observed Temp. °C: 11.2
 Corrected Temp. °C: 9.162
 Sample Condition: Cool Intact Yes No
 CHECKED BY:
 Turnaround Time: Standard Rush
 Thermometer ID #113
 Corrosion Factor -0.5°C
 Bacteria (only) Cool Intact Yes No
 Sample Condition: Observed Temp. °C Corrected Temp. °C

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

ENVIRONMENTAL SAMPLING SUPPLY
www.essval.com 800-233-8425



CUSTODY SEAL



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	nAPP2220136579
District RP	2RP-664
Facility ID	N/A
Application ID	

Release Notification

Responsible Party

Responsible Party: Oxy USA Inc.	OGRID: 16696
Contact Name: Wade Dittrich	Contact Telephone: 575-390-2828
Contact email: wade_dittrich@oxy.com	Incident # nAPP2220136579
Contact mailing address: PO Box 4294, Houston, TX 77210	

Location of Release Source

Latitude 32.197856 Longitude -103.977685
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Gaines 22 Federal #1	Site Type: Well
Date Release Discovered: 1/1/2010	API# (if applicable) 30-015-35186

Unit Letter	Section	Township	Range	County
M	22	24S	29E	Eddy

Surface Owner: State Federal Tribal Private (Name: Oxy USA Inc.)

Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls): Unknown	Volume Recovered (bbls): Unknown
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls): Unknown	Volume Recovered (bbls): Unknown
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Unknown

Incident ID	nAPP2220136579
District RP	2RP-664
Facility ID	N/A
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> 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: <u>Wade Dittrich</u> Title: <u>Environmental Specialist</u> Signature: <u></u> Date: <u>7-20-22</u> email: <u>wade_dittrich@oxy.com</u> Telephone: <u>575-390-2828</u>
<u>OCD Only</u> Received by: _____ Date: _____

Incident ID	nAPP2220136579
District RP	2RP-664
Facility ID	N/A
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>69.89</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 1/2-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	nAPP2220136579
District RP	2RP-664
Facility ID	N/A
Application ID	

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

Printed Name: Wade Dittrich Title: Environmental Specialist
Signature:  Date: 7-20-22
email: wade_dittrich@oxy.com Telephone: 575-390-2828

OCD Only
Received by: _____ Date: _____

Incident ID	nAPP2220136579
District RP	2RP-664
Facility ID	N/A
Application ID	

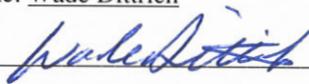
Closure

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

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

- A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- Description of remediation activities

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

Printed Name: Wade Dittrich Title: Environmental Specialist
 Signature:  Date: 7-20-22
 email: wade_dittrich@oxy.com Telephone: 575-390-2828

OCD Only

Received by: OCD Date: 7/20/2022

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

Closure Approved by:  Date: 3/17/2023
 Printed Name: Ashley Maxwell Title: Environmental Specialist

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

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

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

District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 127499

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 127499
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	3/17/2023