



**REVISED CLOSURE REPORT**

Property:

**Sundance SDS 11-1 SWD/BAT**

**Eddy County, New Mexico  
32.240480 N, 103.725720 W  
NMOCD Incident ID: nAPP2215134499**

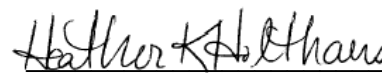
December 1, 2023  
Ensolum Project No. 03B1417042

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

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1.0	INTRODUCTION.....	1
1.2	SITE DESCRIPTION & BACKGROUND .....	2
1.3	PROJECT OBJECTIVE.....	3
2.0	CLOSURE CRITERIA.....	3
3.0	SOIL REMEDIATION ACTIVITIES.....	4
4.0	SOIL SAMPLING PROGRAM.....	5
5.0	SOIL LABORATORY ANALYTICAL METHODS .....	5
6.0	DATA EVALUATION .....	5
7.0	RECLAMATION AND RE-VEGETATION .....	6
8.0	FINDINGS AND RECOMMENDATION .....	6
9.0	STANDARDS OF CARE, LIMITATIONS, AND RELIANCE .....	7
9.1	STANDARD OF CARE.....	7
9.2	LIMITATIONS .....	8
9.3	RELIANCE.....	8

### 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



# ENSOLUM

## REVISED CLOSURE REPORT

Sundance SDS 11-1 SWD/BAT

Eddy County, New Mexico  
32.240480 N, 103.725720 W  
NMOCD Incident ID: nAPP2215134499

Ensolum Project No. 03B1417042

## 1.0 INTRODUCTION

### 1.1 Executive Summary

- On May 1, 2022, a release of crude oil and produced water was reported from a 4-inch Victaulic failure on the Calmon 5 saltwater disposal (SDW) line along with a pinhole release on the steel main line at the Sundance SDS 11-1 SWD/BAT, hereinafter referred to as the "Site". Approximately 35 barrels (bbls) of crude oil and 340 bbls of produced water were released affecting an area approximately 150 feet by 250 feet at the maximum extents. A vacuum truck was brought in and recovered approximately 30 bbls of crude oil and 320 bbls of produced water.
- On May 10, 2022, Ensolum, LLC (Ensolum) arrived on-Site and collected a total of 12 composite pothole soil samples from three locations (SP-1 through SP-3) at one-foot intervals down to a depth of four feet below ground surface (bgs) within the release area. Additionally, four delineation composite soil samples (North, East, South, and West) were collected from a depth of 0 – 1 feet bgs to determine the horizontal and vertical extent of the release. A *Remediation Workplan*, dated August 4, 2022, was prepared by Ensolum. The workplan included the results of the May 2022 sampling and stated that the release area would be excavated down to a minimum of four feet bgs, and a soil boring would be installed in the vicinity to determine the depth of groundwater in the area of the Site. Oxy subsequently began excavating the release area with a backhoe and the excavated soils were taken off-Site for proper disposal.
- Due to the unknown depth to groundwater in the 0.5-mile vicinity, a depth to water soil boring (SB-1/C-04672-POD-1) was installed on September 1, 2022 by Ensolum personnel. The soil boring was installed on Oxy property approximately 0.3-mile north of the Site. The soil boring was installed to 110 feet bgs, and groundwater was not encountered 72-hours after the soil boring was installed. The applicable Closure Criteria were utilized based on the lack of groundwater observed within the first 110 feet bgs at the Site.
- On February 13, 2023, Ensolum arrived on-Site and collected 64 composite soil samples from the excavation floor (FS-1 through FS-64) at a depth of feet bgs. In addition, Ensolum collected nine composite soil samples from the excavation sidewalls (SW-1 through SW-9) at a depth of 0-4 feet bgs. Based on laboratory analytical data, further remediation was required at floor sample locations FS-21, FS-26, FS-36 and FS-64 and side wall sample location SW-7.
- On March 2, 2023, Ensolum returned to the Site and collected four additional composite soil samples from the excavation floor (FS-21, FS-26, FS-36 and FS-64) at a depth of four feet bgs, and one additional composite soil sample from the excavation sidewalls (SW-7) at a depth of 0-4 feet bgs.

Oxy USA Inc.  
 Revised Closure Report  
 Sundance SDS 11-1 SWD/BAT  
 December 1, 2023



- 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 EMNRD OCD's NMAC 19.15.29 Releases as guidance.
- The final excavation area measured approximately 240 feet long and 100 feet wide at the maximum extents. The excavation depth was approximately four feet bgs.
- A total of 68 composite soil samples from 64 locations from the excavation floor (FS-1 through FS-64), and 10 composite soil samples from nine locations from the excavation sidewalls (SW-1 through SW-9) were collected.
- On April 18, 2023, a Closure Report was submitted to the New Mexico EMNRD OCD for approval.
- On May 1, 2022, the New Mexico EMNRD OCD rejected the Closure Report. Steps were subsequently taken by Oxy to address the requirements needed for closure.
- Based on the request from the New Mexico EMNRD OCD, composite samples FS-65 through FS-81 as well as SW-10 and SW-11 were collected on September 19, 2023.
- Based on the laboratory analytical results, the final composite soil samples collected from the excavation floor and sidewalls did not exhibit benzene, total benzene, toluene, ethylbenzene, and xylene (BTEX), total petroleum hydrocarbons (TPH), gasoline range organics (GRO), diesel range organics (DRO) and/or 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

<b>Operator:</b>	Oxy USA Inc. (Oxy)
<b>Site Name:</b>	Sundance SDS 11-1 SWD/BAT
<b>Location:</b>	32.240480 N, 103.725710 W Eddy County, New Mexico
<b>Property:</b>	Bureau of Land Management (BLM)
<b>Regulatory:</b>	New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On May 1, 2022, a release of crude oil and produced water was reported from a 4-inch Victaulic failure on the Calmon 5 SWD line along with a pinhole release on the steel main line at the Site. Approximately 35 bbls of crude oil and 340 bbls of produced water were released affecting an area approximately 150 feet by 250 feet at the maximum extents. A vacuum truck was brought in and recovered approximately 30 bbls of crude oil and 320 bbls of produced water.

Oxy USA Inc.  
Revised Closure Report  
Sundance SDS 11-1 SWD/BAT  
December 1, 2023



On May 10, 2022, Ensolum arrived on-Site and collected a total of 12 composite pothole soil samples from three locations (SP-1 through SP-3) at one-foot intervals down to a depth of four feet bgs within the release area. Additionally, four delineation composite soil samples (North, East, South, and West) were collected from a depth of 0 – 1 feet bgs to determine the horizontal and vertical extent of the release.

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

### 1.3 Project Objective

The primary objective of the closure activities was to reduce COC concentrations in the on-Site soils to below the applicable New Mexico EMNRD OCD closure criteria concentrations.

## 2.0 CLOSURE CRITERIA

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

- The Site is not located within 300 feet of a New Mexico EMNRD OCD-defined continuously flowing watercourse or any other significant watercourse.
  - The Site is not located within 200 feet of a lakebed, sinkhole, or playa lake.
  - The Site is not located within 300 feet from an occupied permanent residence, school, hospital, institution, or church.
  - According to the OSE WRSS database there are no private, domestic freshwater wells used by less than five (5) households for domestic or stock water purposes identified within 500 feet of the Site.
  - According to the OSE WRSS database there are no freshwater wells identified within 1,000 feet of the Site as declared in the previous bullet.
  - The Site is not located within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3.
  - The Site is not located within 300 feet of a wetland.
  - Based on information identified on the New Mexico Mining and Minerals Division's GIS, Maps and Mine Data database, the Site is not located within an area overlying a subsurface mine.
  - Based on the Karst Occurrence Potential (.kmz) provided by the BLM, the Site is not located within an unstable area.
- The Site is noted to be located within an area of minimal flood hazard.

Oxy USA Inc.  
Revised Closure Report  
Sundance SDS 11-1 SWD/BAT  
December 1, 2023



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	EPA Method	Limit
>100 feet	Chloride	300.0 or SM4500 Cl B	20,000 mg/kg
	TPH (GRO+DRO)	SW-846 Method 8015M	1,000 mg/kg
	TPH (GRO+DRO+MRO)	SW-846 Method 8015M	2,500 mg/kg
	BTEX	SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	SW-846 Method 8021B or 8260B	10 mg/kg

### 3.0 SOIL REMEDIATION ACTIVITIES

On May 1, 2022, a release of crude oil and produced water was reported from a 4-inch Victaulic failure on the Calmon 5 SDW line along with a pinhole release on the steel main line at the Site. Approximately 35 bbls of crude oil and 340 bbls of produced water were released affecting an area approximately 150 feet by 250 feet at the maximum extents. A vacuum truck was brought in and recovered approximately 30 bbls of crude oil and 320 bbls of produced water.

On May 10, 2022, Ensolum arrived on-Site and collected a total of 12 composite pothole soil samples from three locations (SP-1 through SP-3) at one-foot intervals down to a depth of four feet bgs within the release area. Additionally, four delineation composite soil samples (North, East, South, and West) were collected from a depth of 0 – 1 feet bgs to determine the horizontal and vertical extent of the release. A *Remediation Workplan*, dated August 4, 2022, was prepared by Ensolum. The workplan included the results of the May 2022 sampling and stated that the release area would be excavated down to a minimum of four feet bgs, and a soil boring would be installed in the vicinity to determine the depth of groundwater in the area of the Site. Oxy subsequently began excavating the release area with a backhoe excavator, and the excavated soils were taken off-Site for proper disposal.

Due to the unknown depth to groundwater in the 0.5-mile vicinity, a depth to water soil boring (SB-1/C-04672-POD-1) was installed on September 1, 2022 by Ensolum personnel. The soil boring was installed on Oxy property approximately 0.3-mile north of the Site. The soil boring was installed to 110 feet bgs, and groundwater was not encountered 72-hours after the soil boring was installed. The applicable Closure Criteria were utilized based on the lack of groundwater observed within the first 110 feet bgs at the Site.

On February 13, 2023, Ensolum arrived on-Site and collected 64 composite soil samples from the excavation floor (FS-1 through FS-64) at a depth of feet bgs. In addition, Ensolum collected nine composite soil samples from the excavation sidewalls (SW-1 through SW-9) at a depth of 0-4 feet bgs. Based on laboratory analytical data, further remediation was required at floor sample locations FS-21, FS-26, FS-36 and FS-64 and side wall sample location SW-7.

Oxy USA Inc.  
Revised Closure Report  
Sundance SDS 11-1 SWD/BAT  
December 1, 2023



On March 2, 2023, Ensolum returned to the Site and collected four additional composite soil samples from the excavation floor (FS-21, FS-26, FS-36, and FS-64) at a depth of four feet bgs, and one additional composite soil sample from the excavation sidewalls (SW-7) at a depth of 0-4 feet bgs.

Based on the request from the New Mexico EMNRD OCD, composite samples FS-65 through FS-81 as well as SW-10 and SW-11 were collected on September 19, 2023.

The composite soil samples were analyzed for BTEX, TPH and chloride in accordance with NMOCD Closure Criteria for Soils Impacted by a Release (NMOCD Closure Criteria).

The final excavation area measured approximately 240 feet long and 100 feet wide at the maximum extents. The excavation depth was approximately four feet bgs. The excavated impacted soils were removed and taken off-Site for proper disposal.

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

**Figure 3** identifies approximate composite 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 a total of 68 composite soil samples from 64 locations from the excavation floor (FS-1 through FS-64), and 10 composite soil samples from nine locations from the excavation sidewalls (SW-1 through SW-9) were collected.

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 an expedited laboratory analysis.

#### 5.0 SOIL LABORATORY ANALYTICAL METHODS

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

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

#### 6.0 DATA EVALUATION

Ensolum compared the benzene, total BTEX, TPH GRO/DRO/MRO, and chloride concentrations associated with the final composite soil samples collected from the excavation floor and sidewalls (FS-1 through FS-64, and SW-1 through SW-9) 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 milligrams per kilogram (mg/kg).
- Laboratory analytical results indicate that total BTEX concentrations for the composite soil samples are below the laboratory SDLs, which are below the applicable NMOCD Closure Criteria of 50 mg/kg.

Oxy USA Inc.  
 Revised Closure Report  
 Sundance SDS 11-1 SWD/BAT  
 December 1, 2023



- Laboratory analytical results indicate combined TPH GRO/DRO concentrations for the final composite soil samples exhibited concentrations ranging from below the laboratory SDLs to 753 mg/kg, which are below the applicable NMOCD Closure Criteria of 1,000 mg/kg for groundwater >100 feet.
- Laboratory analytical results indicate combined TPH GRO/DRO/MRO concentrations for the final composite soil samples exhibited concentrations ranging from below the laboratory SDLs to 910 mg/kg, which are below the applicable NMOCD Closure Criteria of 2,500 mg/kg for groundwater >100 feet.
- Laboratory analytical results indicate chloride concentrations for the final composite soil samples exhibited chloride concentrations ranging from below the laboratory SDLs to 1,180 mg/kg, which are below the applicable NMOCD Closure Criteria of 20,000 mg/kg for groundwater >100 feet.

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

## 7.0 RECLAMATION AND RE-VEGETATION

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

## 8.0 FINDINGS AND RECOMMENDATION

- On May 1, 2022, a release of crude oil and produced water was reported from a 4-inch Victaulic failure on the Calmon 5 SDW line along with a pinhole release on the steel main line at the Site. Approximately 35 bbls of crude oil and 340 bbls of produced water were released affecting an area approximately 150 feet by 250 feet at the maximum extents. A vacuum truck was brought in and recovered approximately 30 bbls of crude oil and 320 bbls of produced water.
- On May 10, 2022, Ensolum arrived on-Site and collected a total of 12 composite pothole soil samples from three locations (SP-1 through SP-3) at one-foot intervals down to a depth of four feet bgs within the release area. Additionally, four delineation composite soil samples (North, East, South, and West) were collected from a depth of 0 – 1 feet bgs to determine the horizontal and vertical extent of the release. A *Remediation Workplan*, dated August 4, 2022, was prepared by Ensolum. The workplan included the results of the May 2022 sampling and stated that the release area would be excavated down to a minimum of four feet bgs, and a soil boring would be installed in the vicinity to determine the depth of groundwater in the area of the Site. Oxy subsequently began excavating the release area with a backhoe excavator, and the excavated soils were taken off-Site for proper disposal.
- Due to the unknown depth to groundwater in the 0.5-mile vicinity, a depth to water soil boring (SB-1/C-04672-POD-1) was installed on September 1, 2022 by Ensolum personnel. The soil boring was installed on Oxy property approximately 0.3-mile north of the Site. The soil boring was installed to 110 feet bgs, and groundwater was not encountered 72-hours after the soil boring was installed. The applicable Closure Criteria were utilized based on the lack of groundwater observed within the first 110 feet bgs at the Site.
- On February 13, 2023, Ensolum arrived on-Site and collected 64 composite soil samples from the excavation floor (FS-1 through FS-64) at a depth of feet bgs. In addition, Ensolum collected nine composite soil samples from the excavation sidewalls (SW-1 through SW-9) at a depth of 0-4 feet bgs. Based on laboratory analytical data, further remediation was required at floor sample locations FS-21, FS-26, FS-36 and FS-64 and side wall sample location SW-7.

Oxy USA Inc.  
Revised Closure Report  
Sundance SDS 11-1 SWD/BAT  
December 1, 2023



- On March 2, 2023, Ensolum returned to the Site and collected four additional composite soil samples from the excavation floor (FS-21, FS-26, FS-36 and FS-64) at a depth of four feet bgs, and one additional composite soil sample from the excavation sidewalls (SW-7) at a depth of 0-4 feet bgs.
- On April 18, 2023, a Closure Report was submitted to the New Mexico EMNRD OCD for approval.
- On May 1, 2022, the New Mexico EMNRD OCD rejected the Closure Report. Steps were subsequently taken by Oxy to address the requirements needed for closure.
- Based on the request from the New Mexico EMNRD OCD, composite samples FS-65 through FS-81 as well as SW-10 and SW-11 were collected on September 19, 2023.
- 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 New Mexico EMNRD OCD's NMAC 19.15.29 Releases as guidance.
- The final excavation area measured approximately 240 feet long and 100 feet wide at the maximum extents. The excavation depth was approximately four feet bgs.
- A total of 81 composite soil samples from 81 locations from the excavation floor (FS-1 through FS-81), and 11 composite soil samples from 11 locations from the excavation sidewalls (SW-1 through SW-11) were collected.
- Based on the laboratory analytical results, the final composite soil samples collected from the excavation floor and sidewalls did not exhibit benzene, total 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.

Oxy USA Inc.  
Revised Closure Report  
Sundance SDS 11-1 SWD/BAT  
December 1, 2023



## **9.2 Limitations**

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

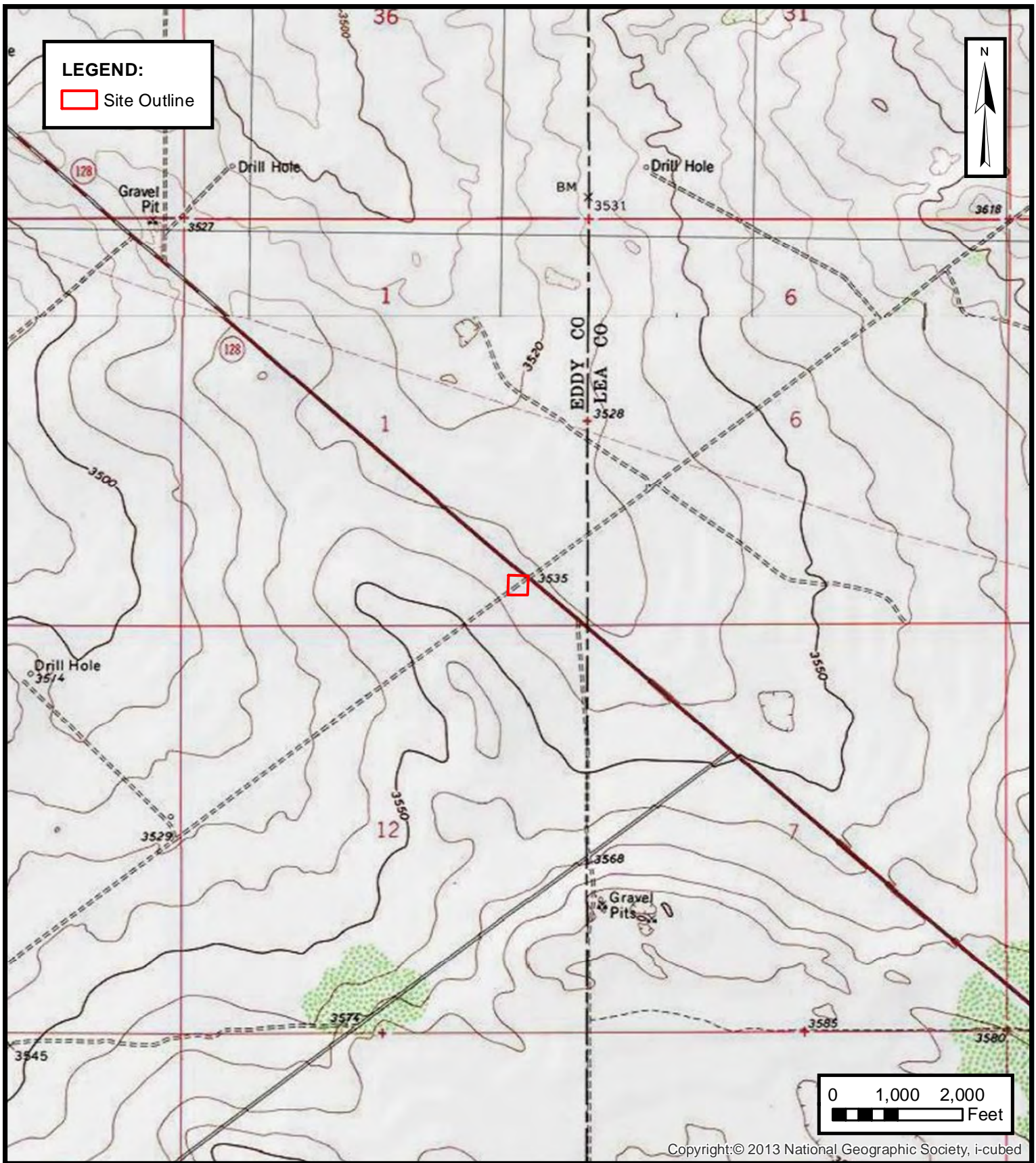
## **9.3 Reliance**

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



## APPENDIX A

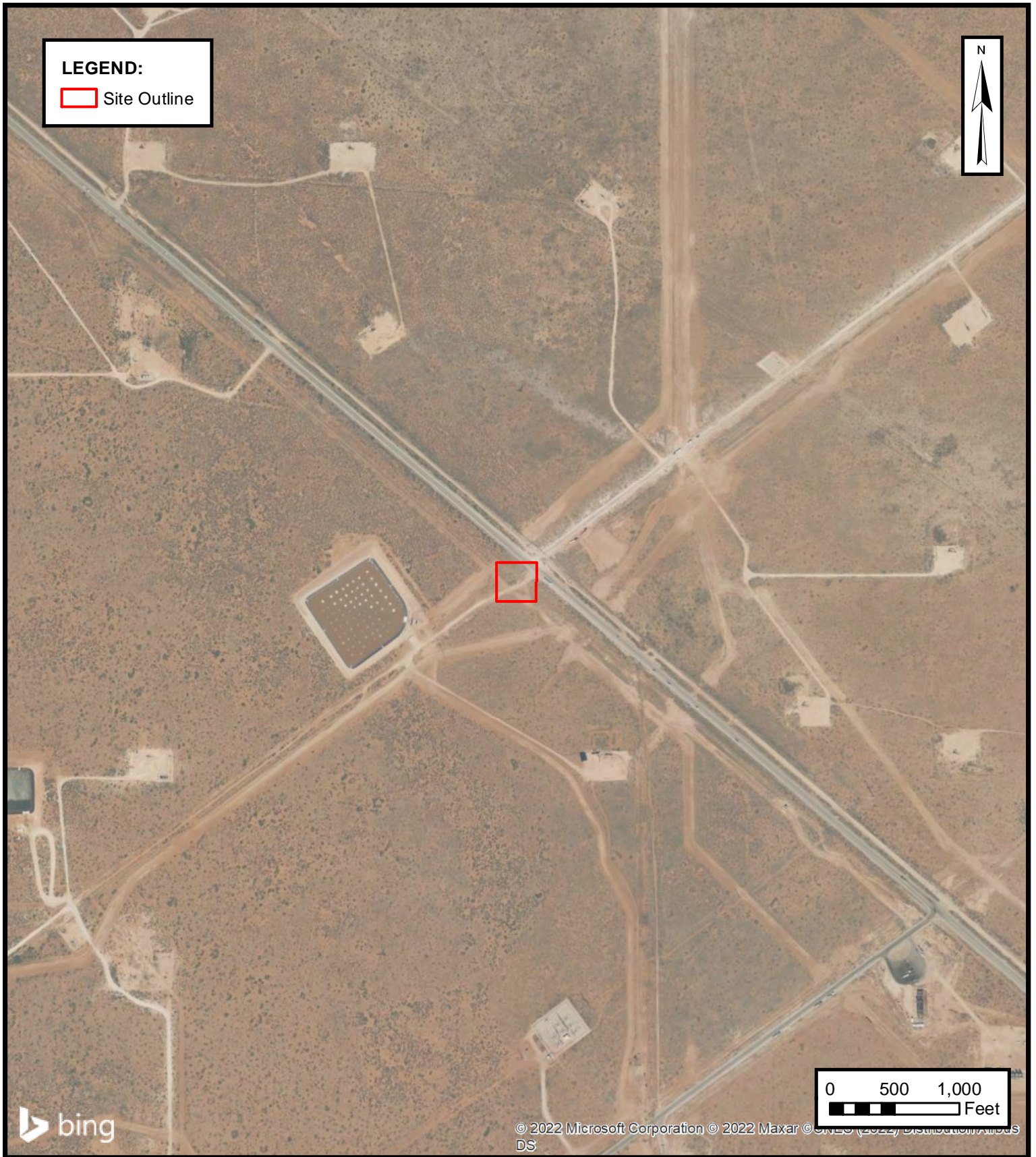
### Figures



**ENSOLUM**  
Environmental & Hydrogeologic Consultants

**TOPOGRAPHIC MAP**  
OXY USA INC.  
SUNDANCE SDS 11-1 SWD/BAT  
Eddy County, New Mexico  
32.240480° N, 103.725720° W  
PROJECT NUMBER: 03B1417042

**FIGURE**  
**1**

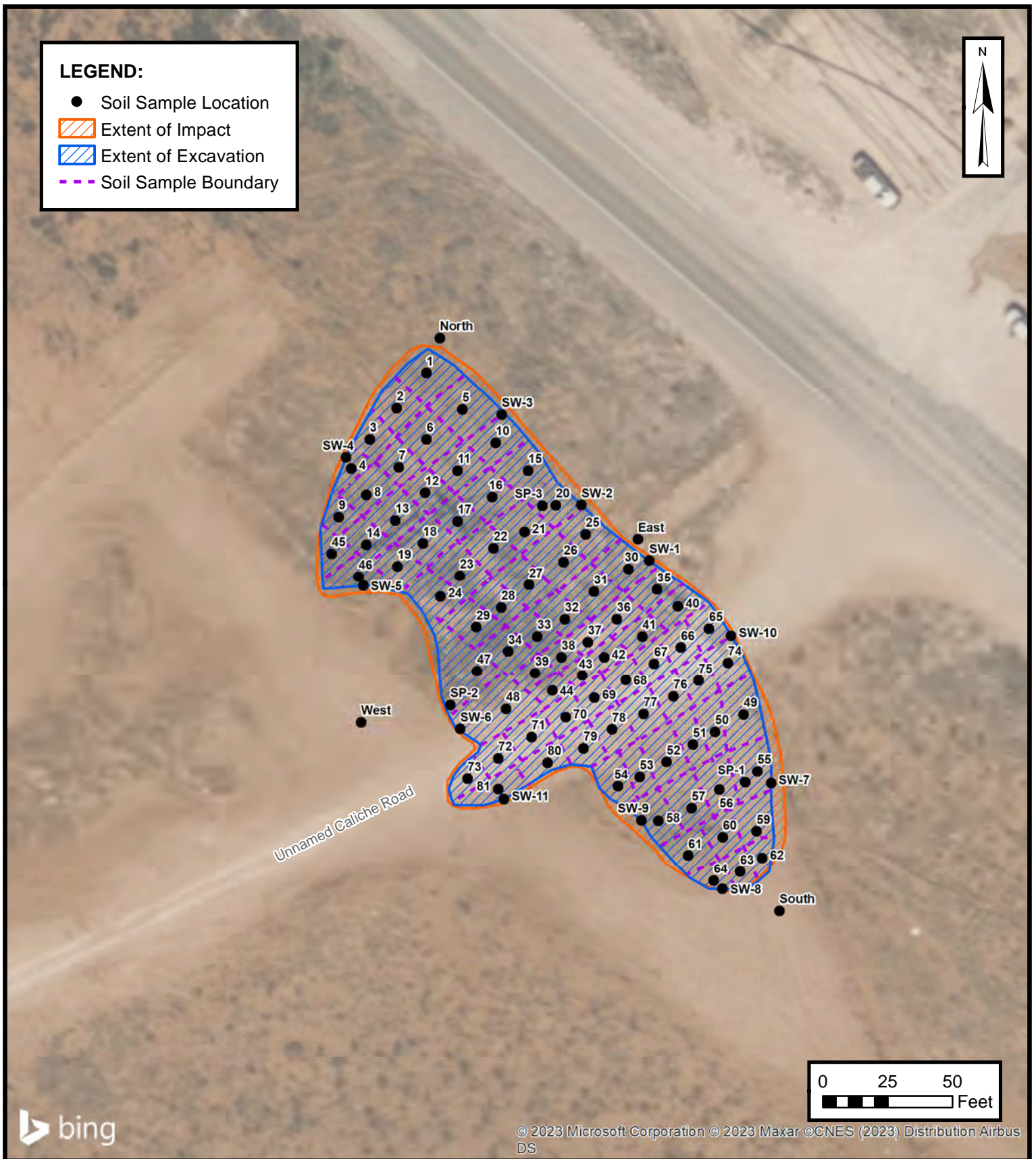


**SITE VICINITY MAP**

OXY USA INC.  
SUNDANCE SDS 11-1 SWD/BAT  
Eddy County, New Mexico  
32.240480° N, 103.725720° W

PROJECT NUMBER: 03B1417042

**FIGURE**  
**2**



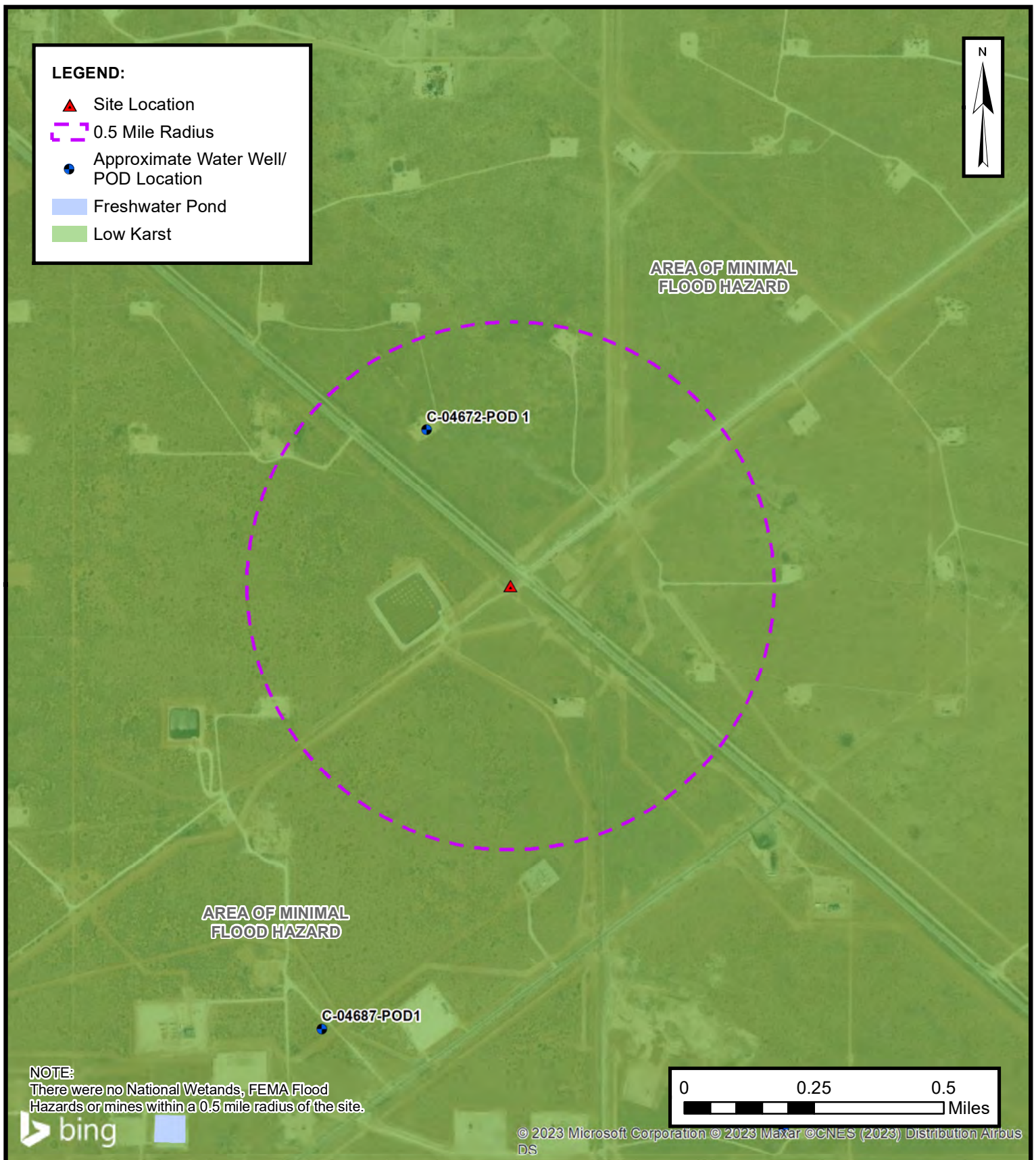
### SITE MAP

OXY USA INC.  
SUNDANCE SDS 11-1 SWD/BAT  
Eddy County, New Mexico  
32.240480° N, 103.725720° W

PROJECT NUMBER: 03B1417042

FIGURE

3





## APPENDIX B

### Supporting Documentation

**Beaux Jennings**

---

**From:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>  
**Sent:** Friday, February 17, 2023 9:31 AM  
**To:** Beaux Jennings  
**Subject:** FW: [EXTERNAL] Sundance SDS 11-1 SWD/BAT (Incident ID: nAPP2215134499)

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

Beaux,

OCD approves your request for a 90-day extension to May 18, 2023 to submit a revised closure report. 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.

Thank you,  
Jocelyn Harimon

**Jocelyn Harimon** • Environmental Specialist  
Environmental Bureau  
EMNRD - Oil Conservation Division  
1220 South St. Francis Drive | Santa Fe, NM 87505  
(505)469-2821 | [Jocelyn.Harimon@emnrd.nm.gov](mailto:Jocelyn.Harimon@emnrd.nm.gov)  
[http:// www.emnrd.nm.gov](http://www.emnrd.nm.gov)



---

**From:** Beaux Jennings <[bjennings@ensolum.com](mailto:bjennings@ensolum.com)>  
**Sent:** Thursday, February 16, 2023 9:38 AM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Cc:** Dittrich, John W <[Wade\\_Dittrich@oxy.com](mailto:Wade_Dittrich@oxy.com)>; Pierce, Tyson (Legacy Safety & Consulting LLC) <[Tyson\\_Pierce@oxy.com](mailto:Tyson_Pierce@oxy.com)>  
**Subject:** [EXTERNAL] Sundance SDS 11-1 SWD/BAT (Incident ID: nAPP2215134499)

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

Good Morning,

On behalf of Oxy USA Inc, Ensolum, LLC would like to request a 90-day extension for the Sundance SDS 11-1 SWD/BAT (Incident ID: nAPP2215134499). Excavation activities are currently being conducted at the site and require more time, due to multiple pipelines within the vicinity of the release. I have attached a few representative photos of the area. Please let us know if you have any questions.

Thank you,



**Beaux Jennings**

Senior Project Manager

210-219-8858

Ensolum, LLC

in f 

**Beaux Jennings**

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**From:** Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>  
**Sent:** Monday, September 18, 2023 2:35 PM  
**To:** Beaux Jennings  
**Cc:** Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD  
**Subject:** RE: [EXTERNAL] Sundance SDS 11-1 SWD/BAT (Incident ID: nAPP2215134499)

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

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

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

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



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**From:** Beaux Jennings <bjennings@ensolum.com>  
**Sent:** Monday, September 18, 2023 12:39 PM  
**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>  
**Subject:** [EXTERNAL] Sundance SDS 11-1 SWD/BAT (Incident ID: nAPP2215134499)

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

Good Afternoon,

On behalf of Oxy USA Inc, Ensolum, LLC would like to provide notification for sampling activities that will be conducted at the Sundance SDS 11-1 SWD/BAT (Incident ID: nAPP2215134499) the week of September 18' 2023. The samples may be used for closure, provided that they meet applicable closure limits.

Thank you,



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

## Beaux Jennings

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**From:** Beaux Jennings  
**Sent:** Tuesday, February 28, 2023 7:52 PM  
**To:** OCD.Enviro@emnrd.nm.gov  
**Subject:** Sundance SDS 11-1 SWD/BAT (Incident ID: nAPP2215134499)

Good Afternoon,

On behalf of Oxy USA Inc, Ensolum, LLC would like to provide notification for sampling activities that will be conducted at the Sundance SDS 11-1 SWD/BAT (Incident ID: nAPP2215134499) on Thursday, March 2<sup>nd</sup>. 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 

OSE POD Locations Map



4/11/2023, 4:04:53 PM

GIS WATERS PODs

- Active
- Pending

OSE District Boundary

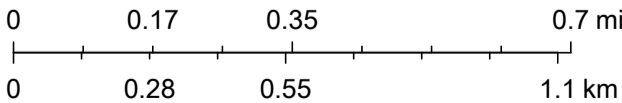
New Mexico State Trust Lands

- Subsurface Estate
- Both Estates
- Site Boundaries

Water Right Regulations

- Closure Area

1:18,056




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



# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)				(quarters are smallest to largest)			(NAD83 UTM in meters)	
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>	
NA	C 04672 POD 1	2	1	4	01	24S	31E	619762	3568286	
<hr/>										
<b>Driller License:</b> 1184		<b>Driller Company:</b> WEST TEXAS WATER WELL SERVICE								
<b>Driller Name:</b> RUSSELL SOUTHERLAND										
<b>Drill Start Date:</b> 09/01/2022		<b>Drill Finish Date:</b>			09/01/2022			<b>Plug Date:</b>		
<b>Log File Date:</b> 09/26/2022		<b>PCW Rev Date:</b>						<b>Source:</b>		
<b>Pump Type:</b>		<b>Pipe Discharge Size:</b>						<b>Estimated Yield:</b>		
<b>Casing Size:</b>		<b>Depth Well:</b>			110 feet			<b>Depth Water:</b>		

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.

4/11/23 3:07 PM

POINT OF DIVERSION SUMMARY



# New Mexico Office of the State Engineer

## Water Right Summary



[get image list](#)

**WR File Number:** C 04672      **Subbasin:** CUB      **Cross Reference:** -  
**Primary Purpose:** EXP      EXPLORATION  
**Primary Status:** PMT      PERMIT  
**Total Acres:**      **Subfile:** -      **Header:** -  
**Total Diversion:** 0      **Cause/Case:** -  
**User:** OXY USA INC.  
**Contact:** WADE DITTRICH  
**User:** ENSOLUM LLC  
**Contact:** BEAUX JENNINGS

### Documents on File

Trn #	Doc	File/Act	Status		Transaction Desc.	From/ To	Acres	Diversion	Consumptive
			1	2					
<a href="#">get images</a>	<a href="#">734614</a>	<a href="#">EXPL 2022-09-22</a>	PMT	APR	C 04672 POD 1	T	0	0	

### Current Points of Diversion

(NAD83 UTM in meters)											
POD Number	Well Tag	Source	Q					X	Y	Other Location Desc	
			64	Q16	Q4	Sec	Tws				Rng
<a href="#">C 04672 POD 1</a>	NA		2	1	4	01	24S	31E	619762	3568286	

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.

4/11/23 3:06 PM

WATER RIGHT SUMMARY

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

## SOIL BORING / WELL LOG

### DRILLING & SAMPLING INFORMATION

Date Started: 9/1/2022  
 Date Completed: 9/1/2022  
 Drilling Company: West Texas Water Well Services  
 Driller: Russell Southerland  
 Geologist: Shane Diller  
 Boring Method: AR  
 Sampler Type: AR  
 Bore Hole Diameter: 5 7/8"  
 Casing Diameter: N/A  
 Well Materials: N/A  
 Surface Completion: N/A

Soil Boring / Well Number: SB-1 (C-04672-POD-1)

Project #: 03B1417051

Drawn By: Beaux Jennings

Approved By: Heather Holthaus

Sampler: Shane Diller  
 Logged By: Shane Diller  
 Screen: N/A  
 Total Depth: 110'

#### BORING METHOD

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

#### SAMPLER TYPE

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

#### GROUNDWATER DEPTH

▽ AT COMPLETION  
 ▽ AT WELL STABILIZATION

### BORING AND SAMPLING NOTES

Soil  
Boring  
Detail

### SOIL CLASSIFICATION

Stratum  
Depth

Depth  
Scale

Sample  
No.

Sample Interval

% Recovery

Groundwater Depth

FID/PID Readings (ppm)

0'-9.5' - Silty sand, reddish yellow, slightly moist, no odor

10' - Sand, very fine grained, pink, dry, no odor

20' - Silty sand, very fine grained, small caliche fragments, reddish brown, dry, no odor

39'-40' - Thin sandstone, reddish brown, dry, no odor

40' - Silty sand, weak red, dry, no odor

NR - No Recovery

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

## SOIL BORING / WELL LOG

### DRILLING & SAMPLING INFORMATION

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

Soil Boring / Well Number: SB-1 (C-04672-POD-1)  
 Project #: 03B1417051  
 Drawn By: Beaux Jennings  
 Approved By: Heather Holthaus

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

**BORING METHOD**      **SAMPLER TYPE**      **GROUNDWATER DEPTH**  
 HSA - HOLLOW STEM AUGERS      CB - FIVE FOOT CORE BARREL      ▽ AT COMPLETION  
 CFA - CONTINUOUS FLIGHT AUGERS      SS - DRIVEN SPLIT SPOON      ▽ AT WELL STABILIZATION  
 GP - GEOPROBE      ST - PRESSED SHELBY TUBE  
 AR - AIR ROTARY

### BORING AND SAMPLING NOTES

Soil Boring Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	FID/PID Readings (ppm)
--------------------	---------------------	---------------	-------------	------------	-----------------	------------	-------------------	------------------------

Drill Cuttings-

Drill Cuttings-

80' - Changing to reddish brown

90' - Changing to light reddish brown

110' - Total Depth

NR - No Recovery

# National Flood Hazard Layer FIRMette



103°43'52"W 32°14'41"N



0 250 500 1,000 1,500 2,000 Feet 1:6,000 103°43'14"W 32°14'10"N  
Released to Imaging: 12/15/2023 1:29:52 PM  
Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

## Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/1/2022 at 4:44 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

# Sundance SDS 11-1 SWD/CTB

Write a description for your map.

## Legend

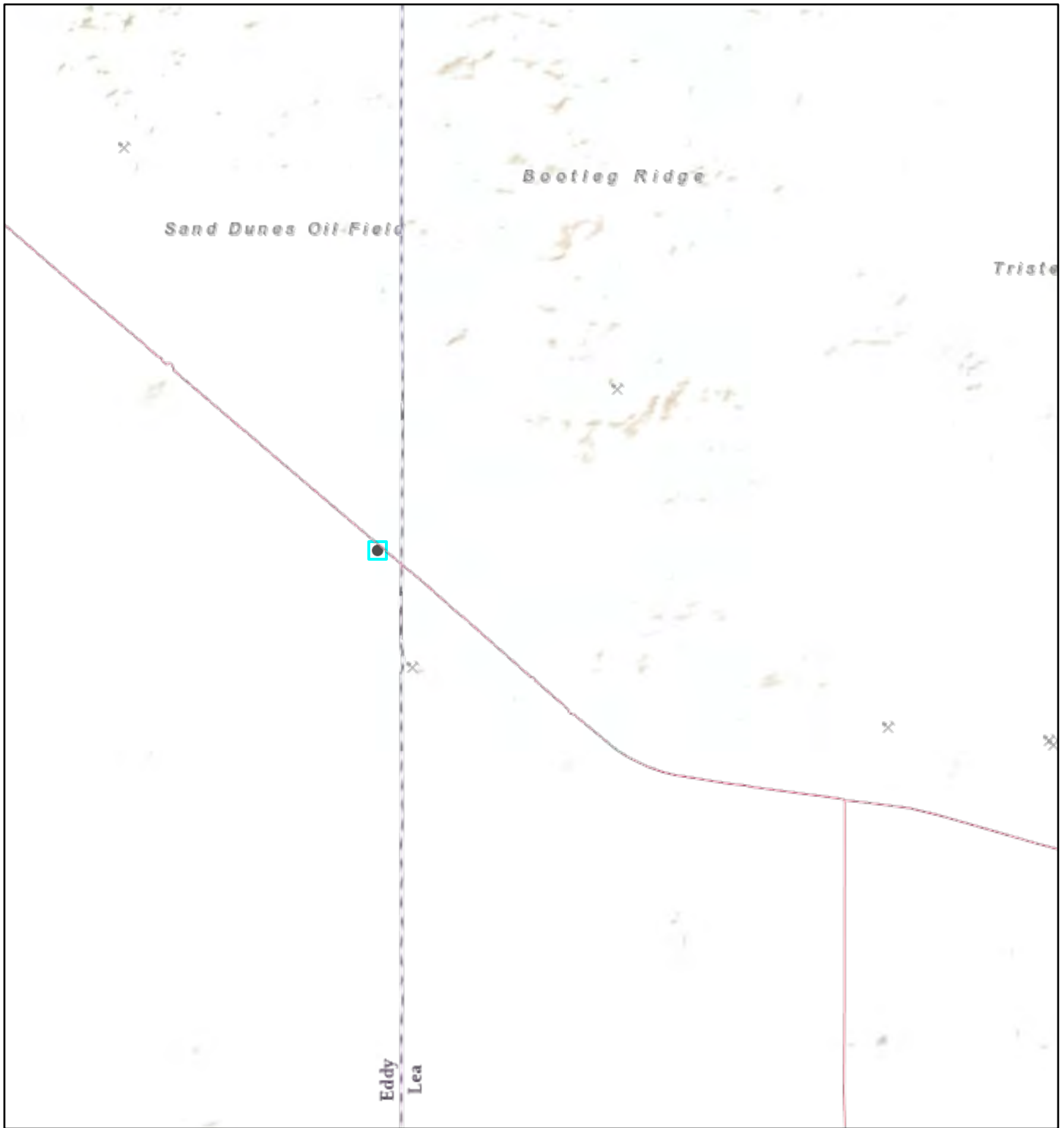
- High
- Low
- Medium
- Sundance
- Sundance SDS 11-1 SWD/BAT

Sundance SDS 11-1 SWD/BAT



500 ft

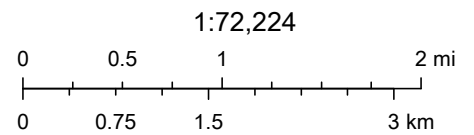
## Active Mines in New Mexico



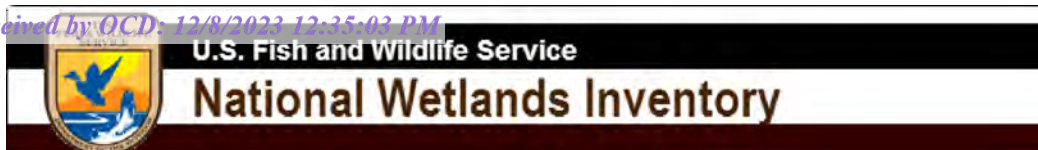
8/1/2022, 3:50:25 PM

### Registered Mines

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



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



## Sundance SDS 11-1 SWD/BAT



August 1, 2022

**Wetlands**

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

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



**United States Department of Interior**  
**Bureau of Land Management**  
**Major Undesirable Event Report<sup>1</sup>**

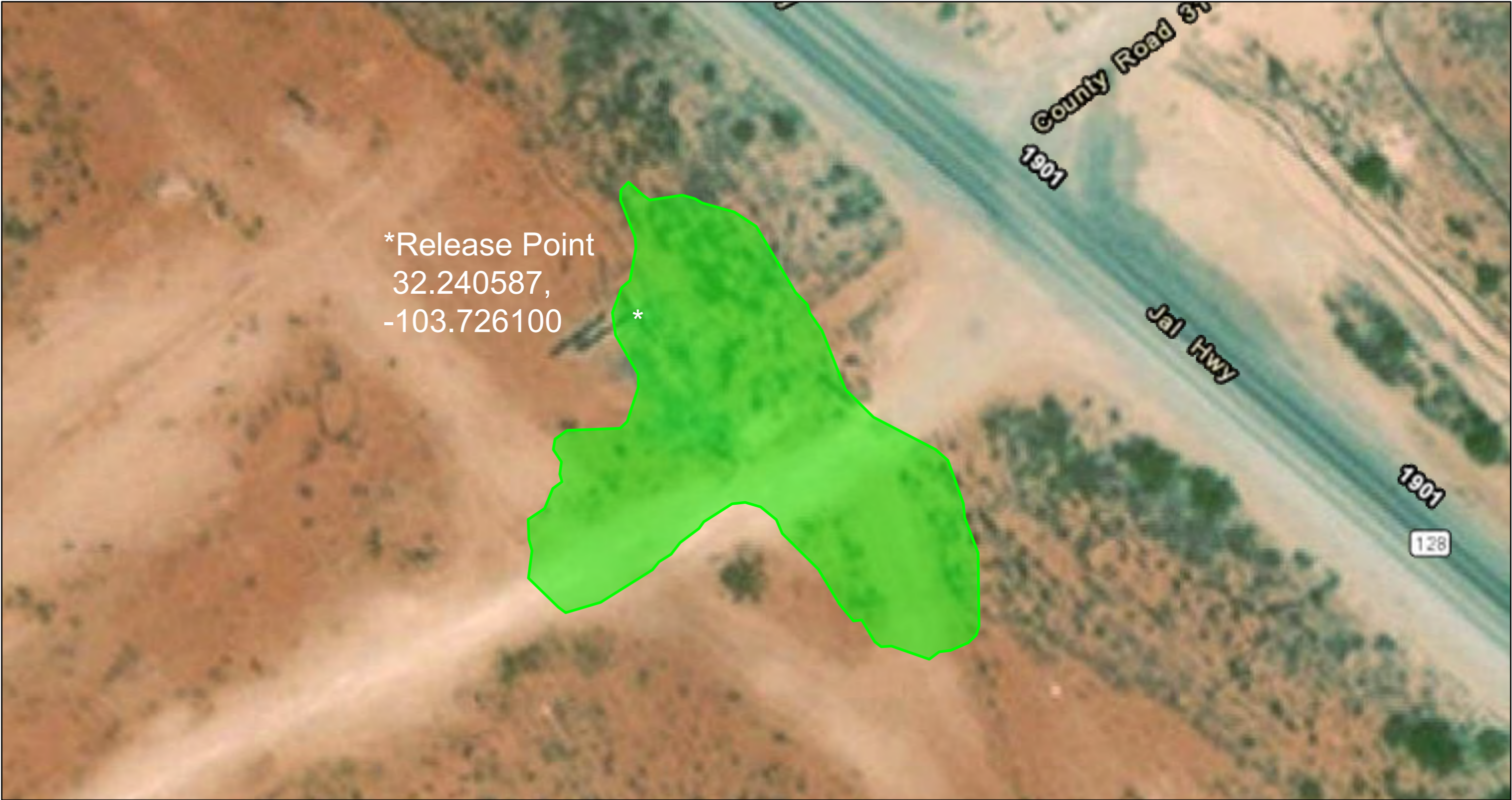
ATTACHMENT 2

Report Type: Initial 24-Hour <input type="checkbox"/>		15-Day/Final <input type="checkbox"/>		Other/Follow-up <input checked="" type="checkbox"/>	
BLM Field Office: Carlsbad Field Office				State: NM	
BLM Contact: Crisha A. Morgan			Date of this Report: 5/18/22		
Company Official Reporting to BLM: Wade Dittrich					
Operator: Oxy USA Inc.					
Date/Time of Occurrence: 5/1/22 @ 1200			Date/Time BLM Notified: 5/2/22 @ 1430		
Field/Unit Name: Sundance-SDS 11-1 SWD/BAT			Lease Number: 304974		
State: NM	County: Eddy	Twp: 24S	Rng: 31E	Sec: 1	Qtr: SE 1/4
:Intentionally left blank					
Surface Ownership:		Federal: <input checked="" type="checkbox"/>	Indian: <input type="checkbox"/>	State: <input type="checkbox"/>	FEE <input type="checkbox"/>
<b>Type and Relevant Details of Event</b>					
Oil Spill <input type="checkbox"/>	Oil/Water Spill <input checked="" type="checkbox"/>	Gas Venting <input type="checkbox"/>	Toxic Fluid Spill <input type="checkbox"/>		
Saltwater Spill <input type="checkbox"/>	Other Spill (Specific) <input type="checkbox"/>	Blowout <input checked="" type="checkbox"/>	Fire <input type="checkbox"/>		
Injury <input type="checkbox"/>	Fatality <input type="checkbox"/>	Property Damage <input type="checkbox"/>	Explosion <input type="checkbox"/>		
Nature and Cause of Event: 4" Vic on Calmon 5 SWD Line failure along with pinhole on steel main line.					
Environmental Impact: Leak in pasture/ROW area adjacent to 4" line.					
Time Required to Control Event (Hours) :		24hrs			
Volume Discharged or Consumed:		OIL: <u>35</u> bbls WATER: <u>340</u> bbls GAS: <u>    </u> mcf			
Volumes Recovered:		OIL: <u>30</u> bbls WATER: <u>320</u> bbls			
Net Volume Lost:		OIL: <u>5</u> bbls WATER: <u>20</u> bbls			
Action Taken to Control Event: Cleanup initiated immediately upon discovery.					
Resulting Damage: Approximately 18,000 square feet of impacted pasture/ROW area.					
Clean-Up Procedures: Excavation of impacts as needed. Analytical results to confirm delineation.					
Cause/Extent of Personal Injury: None.					
Actions the operator has taken or will take to prevent a recurrence of the incident: Replace/repair the source of the leak as needed.					
Agency Notification List:	Agency Name	Contact Name	Date/Time		
(Federal/State/Local):	NMOCD	Enviro Email	5/2/22 @ 1430		
	BLM	CFO Spill Email	5/2/22 @ 1430		




<sup>1</sup> As required per Section III, NTL-3A, Federal Register Notice Vol. 44-No. 7, Wednesday, January 10, 1979, [NTL-3A] Reporting Of Undesirable Events, Notice to Lessees and Operators; P. 2204-2206

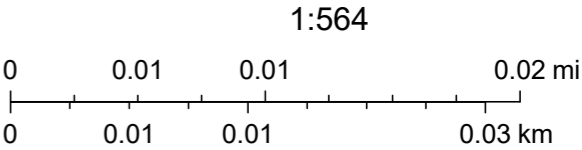
Attachment 2-1

SUNDANCE SDS 11-1 SWD/BAT



5/6/2022, 3:27:11 PM

-  AREA\_FF00FF001
-  OSE District Boundary
-  SiteBoundaries



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, U.S. Department of Energy Office of Legacy



## APPENDIX C

### Photographic Documentation



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



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

Date & Time: Tue, May 10, 2022, 10:30:15 MDT  
Position: 032.240213°N / 103.725672°W ( $\pm 15.5$ ft)  
Altitude: 3547ft ( $\pm 11.1$ ft)  
Datum: WGS-84  
Azimuth/Bearing: 336° N24W 5973mils True ( $\pm 12^\circ$ )  
Elevation Angle:  $-07.2^\circ$   
Horizon Angle:  $-01.1^\circ$   
Zoom: 1.0X



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

Date & Time: Tue, May 10, 2022, 10:25:44 MDT  
Position: 032.240236°N / 103.726250°W ( $\pm 15.6$ ft)  
Altitude: 3545ft ( $\pm 11.0$ ft)  
Datum: WGS-84  
Azimuth/Bearing: 049° N49E 0871mils True ( $\pm 13^\circ$ )  
Elevation Angle:  $-01.0^\circ$   
Horizon Angle:  $+00.2^\circ$   
Zoom: 1.0X



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

Date & Time: Tue, May 10, 2022, 10:29:12 MDT  
Position: 032.240502°N / 103.725801°W (±15.5ft)  
Altitude: 3545ft (±11.1ft)  
Datum: WGS-84  
Azimuth/Bearing: 258° S78W 4587mils True (±12°)  
Elevation Angle: -07.4°  
Horizon Angle: -00.2°  
Zoom: 1.0X



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

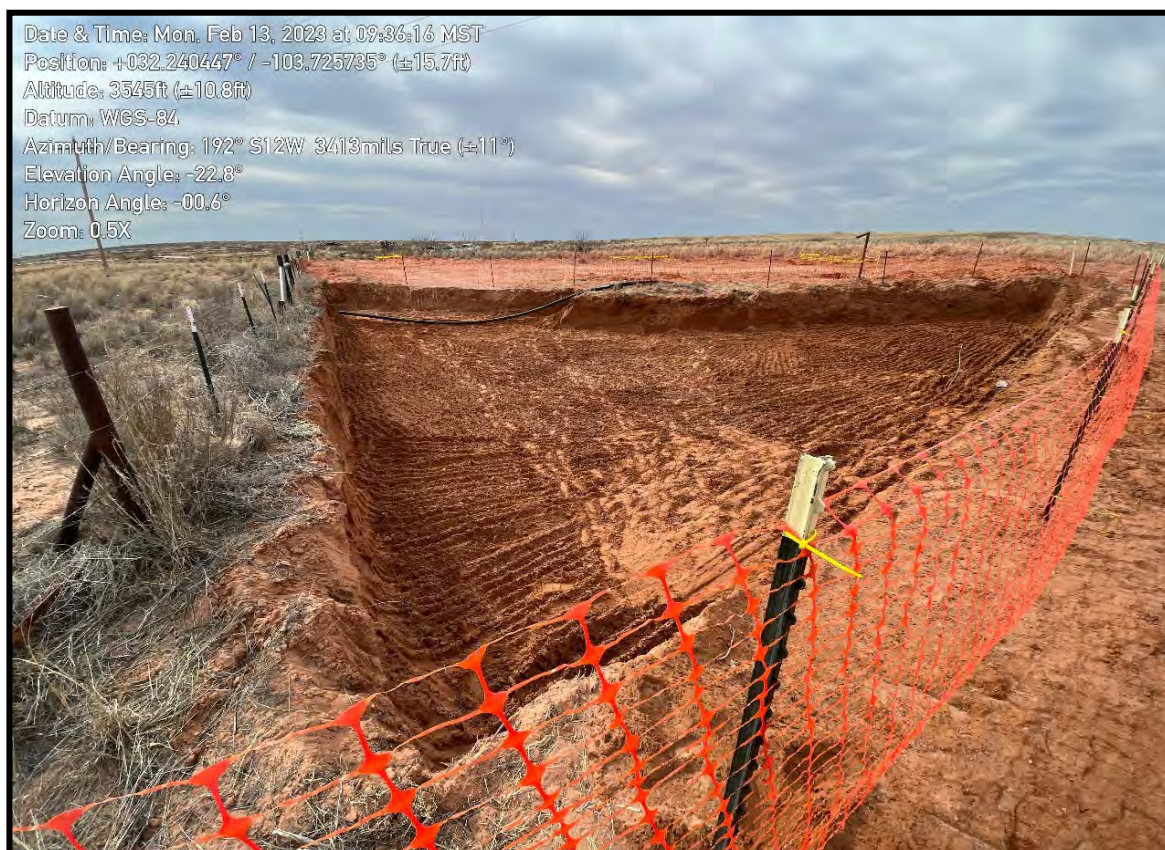
Date & Time: Tue, May 10, 2022, 10:29:31 MDT  
Position: 032.240403°N / 103.725781°W (±15.5ft)  
Altitude: 3548ft (±11.1ft)  
Datum: WGS-84  
Azimuth/Bearing: 038° N38E 0676mils True (±12°)  
Elevation Angle: -04.0°  
Horizon Angle: -00.4°  
Zoom: 1.0X



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



View of final excavation area, facing northwest.



View of final excavation area, facing southwest.



View of final excavation area, facing north.



View of final excavation area, facing northeast.



## APPENDIX D

### Tables







**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 Sundance SDS 11-1 SWD BAT  
 Oxy USA Inc.  
 Eddy County, New Mexico  
 Ensolum Project No. 03B1417042

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO+DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (GRO+DRO+MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (> 100 feet)			10	NE	NE	NE	50	1,000	NE	2,500	20,000
Composite Sidewall Soil Sample Analytical Results											
SW-1	2/13/2023	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	64.0
SW-2	2/13/2023	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	23.2	23.2	288
SW-3	2/13/2023	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	64.0
SW-4	2/13/2023	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<16.0
SW-5	2/13/2023	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	16.0
SW-6	2/13/2023	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
SW-7	2/13/2023	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	2,604	534	3,138	576
	3/2/2023	0 - 4	NS					<10.0	<10.0	<10.0	NS
SW-8	2/13/2023	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<16.0
SW-9	2/13/2023	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	288
SW-10	9/19/2023	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	16.0
SW-11	9/19/2023	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
Composite Pothole Soil Sample Analytical Results											
SP-1	5/10/2022	0 - 1	<0.050	<0.050	<0.050	<0.150	<0.300	828	213	1,041	3,160
		1 - 2	<0.050	<0.050	<0.050	<0.150	<0.300	93.9	30.1	124	3,520
		2 - 3	<0.050	<0.050	<0.050	<0.150	<0.300	49.5	12.0	61.5	4,400
		3 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	26.7	<10.0	26.7	8,000
SP-2	5/10/2022	0 - 1	<0.050	<0.050	0.160	1.63	1.79	3,947	835	4,782	7,600
		1 - 2	<0.050	<0.050	<0.050	<0.150	<0.300	523	154	677	1,700
		2 - 3	<0.050	<0.050	<0.050	<0.150	<0.300	224	62.9	287	288
		3 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	321	65.3	386	272
SP-3	5/10/2022	0 - 1	<0.050	<0.050	<0.050	<0.150	<0.300	1,170	302	1,472	3,440
		1 - 2	<0.050	<0.050	<0.050	<0.150	<0.300	445	119	564	2,960
		2 - 3	<0.050	<0.050	<0.050	<0.150	<0.300	104	30.9	135	3,680
		3 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	31.4	<10.0	31.4	5,760
Composite Delineation Sample Analytical Results											
North	5/10/2022	0 - 1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	112
East	5/10/2022	0 - 1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
South	5/10/2022	0 - 1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
West	5/10/2022	0 - 1	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	48.0

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

Over Excavated 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

February 20, 2023

BEAUX JENNINGS

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: SUNDANCE SDS 11-1 SWD/BAT

Enclosed are the results of analyses for samples received by the laboratory on 02/13/23 15:18.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 1 4' (H230667-01)**

BTEX 8021B		mg/kg		Analyzed By: ZZZ				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	1.85	92.3	2.00	2.46	
Toluene*	<0.050	0.050	02/17/2023	ND	2.20	110	2.00	9.08	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.40	120	2.00	6.62	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.15	119	6.00	3.88	
Total BTEX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 149 % 71.5-134

Chloride, SM4500Cl-B			mg/kg					Analyzed By: AC	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/15/2023	ND	432	108	400	0.00	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	212	106	200	2.67	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	194	96.9	200	4.37	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 99.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
Reported: 02/20/2023  
Project Name: SUNDANCE SDS 11-1 SWD/BAT  
Project Number: 03B1417042  
Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 2 4' (H230667-02)**

BTEx 8021B		mg/kg		Analyzed By: ZZZ				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	1.85	92.3	2.00	2.46	
Toluene*	<0.050	0.050	02/17/2023	ND	2.20	110	2.00	9.08	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.40	120	2.00	6.62	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.15	119	6.00	3.88	
Total BTEX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 143 % 71.5-134

Chloride, SM4500CI-B			mg/kg					Analyzed By: AC	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/15/2023	ND	432	108	400	0.00	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	212	106	200	2.67	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	194	96.9	200	4.37	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 96.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 3 4' (H230667-03)**

BTEx 8021B		mg/kg		Analyzed By: ZZZ				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	1.85	92.3	2.00	2.46	
Toluene*	<0.050	0.050	02/17/2023	ND	2.20	110	2.00	9.08	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.40	120	2.00	6.62	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.15	119	6.00	3.88	
Total BTEx	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 148 % 71.5-134

Chloride, SM4500CI-B			mg/kg					Analyzed By: AC	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/15/2023	ND	432	108	400	0.00	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	212	106	200	2.67	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	194	96.9	200	4.37	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 92.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 4 4' (H230667-04)**

BTX 8021B		mg/kg	Analyzed By: ZZZ					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	1.85	92.3	2.00	2.46	
Toluene*	<0.050	0.050	02/17/2023	ND	2.20	110	2.00	9.08	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.40	120	2.00	6.62	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.15	119	6.00	3.88	
Total BTX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 146 % 71.5-134

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/15/2023	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	212	106	200	2.67	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	194	96.9	200	4.37	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 98.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
Reported: 02/20/2023  
Project Name: SUNDANCE SDS 11-1 SWD/BAT  
Project Number: 03B1417042  
Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 5 4' (H230667-05)**

BTX 8021B		mg/kg	Analyzed By: ZZZ					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	1.85	92.3	2.00	2.46	
Toluene*	<0.050	0.050	02/17/2023	ND	2.20	110	2.00	9.08	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.40	120	2.00	6.62	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.15	119	6.00	3.88	
Total BTX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 150 % 71.5-134

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/15/2023	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	212	106	200	2.67	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	194	96.9	200	4.37	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 97.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 6 4' (H230667-06)**

BTEx 8021B		mg/kg	Analyzed By: ZZZ					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	1.85	92.3	2.00	2.46	
Toluene*	<0.050	0.050	02/17/2023	ND	2.20	110	2.00	9.08	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.40	120	2.00	6.62	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.15	119	6.00	3.88	
Total BTEX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 155 % 71.5-134

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/15/2023	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	212	106	200	2.67	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	194	96.9	200	4.37	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 97.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 7 4' (H230667-07)**

BTX 8021B			mg/kg					Analyzed By: ZZZ		S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Benzene*	<0.050	0.050	02/17/2023	ND	1.85	92.3	2.00	2.46			
Toluene*	<0.050	0.050	02/17/2023	ND	2.20	110	2.00	9.08			
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.40	120	2.00	6.62			
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.15	119	6.00	3.88			
Total BTX	<0.300	0.300	02/17/2023	ND							

Surrogate: 4-Bromofluorobenzene (PID) 158 % 71.5-134

Chloride, SM4500CI-B			mg/kg					Analyzed By: AC			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	48.0	16.0	02/15/2023	ND	432	108	400	0.00			

TPH 8015M			mg/kg					Analyzed By: MS			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	212	106	200	2.67			
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	194	96.9	200	4.37			
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND							

Surrogate: 1-Chlorooctane 99.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 8 4' (H230667-08)**

BTEx 8021B		mg/kg		Analyzed By: ZZZ				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	1.85	92.3	2.00	2.46	
Toluene*	<0.050	0.050	02/17/2023	ND	2.20	110	2.00	9.08	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.40	120	2.00	6.62	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.15	119	6.00	3.88	
Total BTEX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 149 % 71.5-134

Chloride, SM4500CI-B			mg/kg					Analyzed By: AC	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/15/2023	ND	432	108	400	0.00	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	212	106	200	2.67	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	194	96.9	200	4.37	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
Reported: 02/20/2023  
Project Name: SUNDANCE SDS 11-1 SWD/BAT  
Project Number: 03B1417042  
Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 9 4' (H230667-09)**

BTEx 8021B		mg/kg		Analyzed By: ZZZ				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2023	ND	1.85	92.3	2.00	2.46		
Toluene*	<0.050	0.050	02/17/2023	ND	2.20	110	2.00	9.08		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.40	120	2.00	6.62		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.15	119	6.00	3.88		
Total BTEx	<0.300	0.300	02/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 153 % 71.5-134

Chloride, SM4500CI-B			mg/kg					Analyzed By: AC	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/15/2023	ND	432	108	400	0.00	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	212	106	200	2.67	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	194	96.9	200	4.37	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 83.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.8 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 10 4' (H230667-10)**

BTX 8021B		mg/kg	Analyzed By: ZZZ					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	1.85	92.3	2.00	2.46	
Toluene*	<0.050	0.050	02/17/2023	ND	2.20	110	2.00	9.08	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.40	120	2.00	6.62	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.15	119	6.00	3.88	
Total BTX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 154 % 71.5-134

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	02/15/2023	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2023	ND	196	97.8	200	1.19	
DRO >C10-C28*	<10.0	10.0	02/15/2023	ND	203	101	200	0.753	
EXT DRO >C28-C36	<10.0	10.0	02/15/2023	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 131 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
Reported: 02/20/2023  
Project Name: SUNDANCE SDS 11-1 SWD/BAT  
Project Number: 03B1417042  
Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 11 4' (H230667-11)**

BTEx 8021B			mg/kg					Analyzed By: ZZZ		S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Benzene*	<0.050	0.050	02/17/2023	ND	1.85	92.3	2.00	2.46			
Toluene*	<0.050	0.050	02/17/2023	ND	2.20	110	2.00	9.08			
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.40	120	2.00	6.62			
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.15	119	6.00	3.88			
Total BTEX	<0.300	0.300	02/17/2023	ND							

Surrogate: 4-Bromofluorobenzene (PID) 152 % 71.5-134

Chloride, SM4500Cl-B			mg/kg					Analyzed By: AC			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	112	16.0	02/15/2023	ND	448	112	400	3.64			

TPH 8015M			mg/kg					Analyzed By: MS		S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	196	97.8	200	1.19			
DRO >C10-C28*	313	10.0	02/16/2023	ND	203	101	200	0.753			
EXT DRO >C28-C36	109	10.0	02/16/2023	ND							

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 160 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 12 4' (H230667-12)**

BTX 8021B		mg/kg	Analyzed By: ZZZ					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	1.85	92.3	2.00	2.46	
Toluene*	<0.050	0.050	02/17/2023	ND	2.20	110	2.00	9.08	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.40	120	2.00	6.62	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.15	119	6.00	3.88	
Total BTX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 157 % 71.5-134

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	02/15/2023	ND	448	112	400	3.64	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	196	97.8	200	1.19	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	203	101	200	0.753	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 13 4' (H230667-13)**

BTX 8021B		mg/kg	Analyzed By: ZZZ					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	1.85	92.3	2.00	2.46	
Toluene*	<0.050	0.050	02/17/2023	ND	2.20	110	2.00	9.08	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.40	120	2.00	6.62	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.15	119	6.00	3.88	
Total BTX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 161 % 71.5-134

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/15/2023	ND	448	112	400	3.64	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	196	97.8	200	1.19	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	203	101	200	0.753	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 119 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 14 4' (H230667-14)**

BTX 8021B			mg/kg					Analyzed By: ZZZ		S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Benzene*	<0.050	0.050	02/17/2023	ND	1.85	92.3	2.00	2.46			
Toluene*	<0.050	0.050	02/17/2023	ND	2.20	110	2.00	9.08			
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.40	120	2.00	6.62			
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.15	119	6.00	3.88			
Total BTX	<0.300	0.300	02/17/2023	ND							

Surrogate: 4-Bromofluorobenzene (PID) 158 % 71.5-134

Chloride, SM4500CI-B			mg/kg					Analyzed By: AC			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	48.0	16.0	02/15/2023	ND	448	112	400	3.64			

TPH 8015M			mg/kg					Analyzed By: MS			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	196	97.8	200	1.19			
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	203	101	200	0.753			
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND							

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 124 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
Reported: 02/20/2023  
Project Name: SUNDANCE SDS 11-1 SWD/BAT  
Project Number: 03B1417042  
Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 15 4' (H230667-15)**

BTEx 8021B		mg/kg	Analyzed By: ZZZ					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	1.85	92.3	2.00	2.46	
Toluene*	<0.050	0.050	02/17/2023	ND	2.20	110	2.00	9.08	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.40	120	2.00	6.62	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.15	119	6.00	3.88	
Total BTEX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 153 % 71.5-134

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	02/15/2023	ND	448	112	400	3.64	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	196	97.8	200	1.19	
DRO >C10-C28*	44.9	10.0	02/16/2023	ND	203	101	200	0.753	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 16 4' (H230667-16)**

BTX 8021B			mg/kg					Analyzed By: ZZZ		S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Benzene*	<0.050	0.050	02/17/2023	ND	1.85	92.3	2.00	2.46			
Toluene*	<0.050	0.050	02/17/2023	ND	2.20	110	2.00	9.08			
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.40	120	2.00	6.62			
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.15	119	6.00	3.88			
Total BTX	<0.300	0.300	02/17/2023	ND							

Surrogate: 4-Bromofluorobenzene (PID) 155 % 71.5-134

Chloride, SM4500CI-B			mg/kg					Analyzed By: AC			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	176	16.0	02/15/2023	ND	448	112	400	3.64			

TPH 8015M			mg/kg					Analyzed By: MS			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	196	97.8	200	1.19			
DRO >C10-C28*	124	10.0	02/16/2023	ND	203	101	200	0.753			
EXT DRO >C28-C36	23.4	10.0	02/16/2023	ND							

Surrogate: 1-Chlorooctane 90.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 17 4' (H230667-17)**

BTEx 8021B		mg/kg	Analyzed By: ZZZ					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	1.85	92.3	2.00	2.46	
Toluene*	<0.050	0.050	02/17/2023	ND	2.20	110	2.00	9.08	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.40	120	2.00	6.62	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.15	119	6.00	3.88	
Total BTEX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 172 % 71.5-134

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	02/15/2023	ND	448	112	400	3.64	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	196	97.8	200	1.19	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	203	101	200	0.753	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 18 4' (H230667-18)**

BTX 8021B		mg/kg	Analyzed By: ZZZ					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	1.85	92.3	2.00	2.46	
Toluene*	<0.050	0.050	02/17/2023	ND	2.20	110	2.00	9.08	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.40	120	2.00	6.62	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.15	119	6.00	3.88	
Total BTX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 168 % 71.5-134

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/15/2023	ND	448	112	400	3.64	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	196	97.8	200	1.19	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	203	101	200	0.753	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 19 4' (H230667-19)**

BTEx 8021B		mg/kg	Analyzed By: ZZZ					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	2.01	100	2.00	1.75	
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	1.99	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.39	120	2.00	3.05	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.33	122	6.00	3.77	
Total BTEX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 143 % 71.5-134

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/15/2023	ND	448	112	400	3.64	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	196	97.8	200	1.19	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	203	101	200	0.753	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 20 4' (H230667-20)**

BTEx 8021B		mg/kg	Analyzed By: ZZZ					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	2.01	100	2.00	1.75	
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	1.99	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.39	120	2.00	3.05	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.33	122	6.00	3.77	
Total BTEX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 140 % 71.5-134

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	02/15/2023	ND	448	112	400	3.64	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	196	97.8	200	1.19	
DRO >C10-C28*	260	10.0	02/16/2023	ND	203	101	200	0.753	
EXT DRO >C28-C36	50.7	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 95.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 21 4' (H230667-21)**

BTEx 8021B		mg/kg	Analyzed By: ZZZ					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	2.01	100	2.00	1.75	
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	1.99	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.39	120	2.00	3.05	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.33	122	6.00	3.77	
Total BTEX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 152 % 71.5-134

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1310	16.0	02/15/2023	ND	448	112	400	3.64	

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	196	97.8	200	1.19	
DRO >C10-C28*	2630	10.0	02/16/2023	ND	203	101	200	0.753	
EXT DRO >C28-C36	477	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 190 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 22 4' (H230667-22)**

BTEx 8021B		mg/kg		Analyzed By: ZZZ				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2023	ND	2.01	100	2.00	1.75		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	1.99		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.39	120	2.00	3.05		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.33	122	6.00	3.77		
Total BTEX	<0.300	0.300	02/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 135 % 71.5-134

Chloride, SM4500Cl-B			mg/kg					Analyzed By: AC			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	1090	16.0	02/15/2023	ND	448	112	400	3.64			

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	196	97.8	200	1.19		
DRO >C10-C28*	440	10.0	02/16/2023	ND	203	101	200	0.753		
EXT DRO >C28-C36	70.6	10.0	02/16/2023	ND						

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 136 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 23 4' (H230667-23)**

BTEx 8021B		mg/kg	Analyzed By: ZZZ					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	2.01	100	2.00	1.75	
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	1.99	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.39	120	2.00	3.05	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.33	122	6.00	3.77	
Total BTEX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 142 % 71.5-134

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/15/2023	ND	448	112	400	3.64	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	196	97.8	200	1.19	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	203	101	200	0.753	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 123 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 24 4' (H230667-24)**

BTX 8021B		mg/kg	Analyzed By: ZZZ					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	2.01	100	2.00	1.75	
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	1.99	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.39	120	2.00	3.05	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.33	122	6.00	3.77	
Total BTX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 142 % 71.5-134

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/15/2023	ND	448	112	400	3.64	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	196	97.8	200	1.19	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	203	101	200	0.753	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 25 4' (H230667-25)**

BTX 8021B		mg/kg		Analyzed By: ZZZ				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2023	ND	2.01	100	2.00	1.75		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	1.99		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.39	120	2.00	3.05		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.33	122	6.00	3.77		
Total BTX	<0.300	0.300	02/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 141 % 71.5-134

Chloride, SM4500CI-B			mg/kg					Analyzed By: AC			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	64.0	16.0	02/15/2023	ND	448	112	400	3.64			

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	196	97.8	200	1.19		
DRO >C10-C28*	62.0	10.0	02/16/2023	ND	203	101	200	0.753		
EXT DRO >C28-C36	10.4	10.0	02/16/2023	ND						

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 26 4' (H230667-26)**

BTEx 8021B		mg/kg		Analyzed By: ZZZ				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2023	ND	2.01	100	2.00	1.75		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	1.99		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.39	120	2.00	3.05	GC-NC	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.33	122	6.00	3.77		
Total BTEx	<0.300	0.300	02/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 146 % 71.5-134

Chloride, SM4500CI-B			mg/kg					Analyzed By: AC			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	96.0	16.0	02/15/2023	ND	448	112	400	3.64			

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	196	97.8	200	1.19		
DRO >C10-C28*	1080	10.0	02/16/2023	ND	203	101	200	0.753		
EXT DRO >C28-C36	227	10.0	02/16/2023	ND						

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 142 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 27 4' (H230667-27)**

BTEx 8021B		mg/kg		Analyzed By: ZZZ				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2023	ND	2.01	100	2.00	1.75		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	1.99		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.39	120	2.00	3.05		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.33	122	6.00	3.77		
Total BTEX	<0.300	0.300	02/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 139 % 71.5-134

Chloride, SM4500Cl-B			mg/kg					Analyzed By: AC			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	80.0	16.0	02/15/2023	ND	448	112	400	3.64			

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	196	97.8	200	1.19		
DRO >C10-C28*	753	10.0	02/16/2023	ND	203	101	200	0.753		
EXT DRO >C28-C36	157	10.0	02/16/2023	ND						

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 137 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 28 4' (H230667-28)**

BTEx 8021B		mg/kg	Analyzed By: ZZZ					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	2.01	100	2.00	1.75	
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	1.99	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.39	120	2.00	3.05	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.33	122	6.00	3.77	
Total BTEX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 145 % 71.5-134

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	02/15/2023	ND	448	112	400	3.64	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	196	97.8	200	1.19	
DRO >C10-C28*	52.8	10.0	02/16/2023	ND	203	101	200	0.753	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 98.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 29 4' (H230667-29)**

BTEx 8021B		mg/kg	Analyzed By: ZZZ					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	2.01	100	2.00	1.75	
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	1.99	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.39	120	2.00	3.05	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.33	122	6.00	3.77	
Total BTEX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 152 % 71.5-134

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	02/15/2023	ND	448	112	400	3.64	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	196	97.8	200	1.19	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	203	101	200	0.753	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 123 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 30 4' (H230667-30)**

BTEx 8021B		mg/kg	Analyzed By: ZZZ					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	2.01	100	2.00	1.75	
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	1.99	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.39	120	2.00	3.05	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.33	122	6.00	3.77	
Total BTEX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 139 % 71.5-134

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/15/2023	ND	448	112	400	3.64	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2023	ND	207	104	200	5.65	
DRO >C10-C28*	181	10.0	02/15/2023	ND	209	104	200	4.50	QM-07
EXT DRO >C28-C36	42.8	10.0	02/15/2023	ND					

Surrogate: 1-Chlorooctane 97.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 31 4' (H230667-31)**

BTEx 8021B			mg/kg					Analyzed By: ZZZ		S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Benzene*	<0.050	0.050	02/17/2023	ND	2.01	100	2.00	1.75			
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	1.99			
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.39	120	2.00	3.05			
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.33	122	6.00	3.77			
Total BTEX	<0.300	0.300	02/17/2023	ND							

Surrogate: 4-Bromofluorobenzene (PID) 148 % 71.5-134

Chloride, SM4500Cl-B			mg/kg					Analyzed By: AC			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	80.0	16.0	02/15/2023	ND	448	112	400	7.41			

TPH 8015M			mg/kg					Analyzed By: MS			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10*	<10.0	10.0	02/15/2023	ND	207	104	200	5.65			
DRO >C10-C28*	113	10.0	02/15/2023	ND	209	104	200	4.50			
EXT DRO >C28-C36	34.7	10.0	02/15/2023	ND							

Surrogate: 1-Chlorooctane 90.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 32 4' (H230667-32)**

BTX 8021B		mg/kg	Analyzed By: ZZZ					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	2.01	100	2.00	1.75	
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	1.99	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.39	120	2.00	3.05	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.33	122	6.00	3.77	
Total BTX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 151 % 71.5-134

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/15/2023	ND	448	112	400	7.41	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2023	ND	207	104	200	5.65	
DRO >C10-C28*	208	10.0	02/15/2023	ND	209	104	200	4.50	
EXT DRO >C28-C36	58.5	10.0	02/15/2023	ND					

Surrogate: 1-Chlorooctane 127 % 48.2-134

Surrogate: 1-Chlorooctadecane 139 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 33 4' (H230667-33)**

BTEx 8021B		mg/kg		Analyzed By: ZZZ				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2023	ND	2.01	100	2.00	1.75		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	1.99		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.39	120	2.00	3.05		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.33	122	6.00	3.77		
Total BTEx	<0.300	0.300	02/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 149 % 71.5-134

Chloride, SM4500CI-B			mg/kg					Analyzed By: AC			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	176	16.0	02/15/2023	ND	448	112	400	7.41			

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/15/2023	ND	207	104	200	5.65		
DRO >C10-C28*	68.0	10.0	02/15/2023	ND	209	104	200	4.50		
EXT DRO >C28-C36	14.1	10.0	02/15/2023	ND						

Surrogate: 1-Chlorooctane 99.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 34 4' (H230667-34)**

BTEx 8021B		mg/kg		Analyzed By: ZZZ				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2023	ND	2.01	100	2.00	1.75		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	1.99		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.39	120	2.00	3.05		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.33	122	6.00	3.77		
Total BTEx	<0.300	0.300	02/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 147 % 71.5-134

Chloride, SM4500CI-B			mg/kg					Analyzed By: AC			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	272	16.0	02/15/2023	ND	448	112	400	7.41			

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/15/2023	ND	207	104	200	5.65		
DRO >C10-C28*	27.0	10.0	02/15/2023	ND	209	104	200	4.50		
EXT DRO >C28-C36	<10.0	10.0	02/15/2023	ND						

Surrogate: 1-Chlorooctane 99.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 35 4' (H230667-35)**

BTX 8021B		mg/kg	Analyzed By: ZZZ					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	2.01	100	2.00	1.75	
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	1.99	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.39	120	2.00	3.05	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.33	122	6.00	3.77	
Total BTX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 151 % 71.5-134

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	02/15/2023	ND	448	112	400	7.41	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2023	ND	207	104	200	5.65	
DRO >C10-C28*	<10.0	10.0	02/15/2023	ND	209	104	200	4.50	
EXT DRO >C28-C36	<10.0	10.0	02/15/2023	ND					

Surrogate: 1-Chlorooctane 98.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.7 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 36 4' (H230667-36)**

BTEx 8021B		mg/kg		Analyzed By: ZZZ				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2023	ND	2.01	100	2.00	1.75		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	1.99		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.39	120	2.00	3.05	GC-NC	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.33	122	6.00	3.77		
Total BTEX	<0.300	0.300	02/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 173 % 71.5-134

Chloride, SM4500Cl-B			mg/kg					Analyzed By: AC			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	672	16.0	02/15/2023	ND	448	112	400	7.41			

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	11.8	10.0	02/15/2023	ND	207	104	200	5.65		
DRO >C10-C28*	1140	10.0	02/15/2023	ND	209	104	200	4.50		
EXT DRO >C28-C36	231	10.0	02/15/2023	ND						

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 141 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 37 4' (H230667-37)**

BTX 8021B		mg/kg	Analyzed By: ZZZ					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	2.01	100	2.00	1.75	
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	1.99	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.39	120	2.00	3.05	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.33	122	6.00	3.77	
Total BTX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 148 % 71.5-134

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	02/15/2023	ND	448	112	400	7.41	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2023	ND	207	104	200	5.65	
DRO >C10-C28*	70.6	10.0	02/15/2023	ND	209	104	200	4.50	
EXT DRO >C28-C36	24.0	10.0	02/15/2023	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 38 4' (H230667-38)**

BTEx 8021B		mg/kg	Analyzed By: ZZZ					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	2.01	100	2.00	1.75	
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	1.99	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.39	120	2.00	3.05	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	7.33	122	6.00	3.77	
Total BTEX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 141 % 71.5-134

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	02/15/2023	ND	448	112	400	7.41	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2023	ND	207	104	200	5.65	
DRO >C10-C28*	30.5	10.0	02/15/2023	ND	209	104	200	4.50	
EXT DRO >C28-C36	<10.0	10.0	02/15/2023	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 39 4' (H230667-39)**

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	5.06		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.87		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.65		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.23	104	6.00	4.38		
Total BTX	<0.300	0.300	02/17/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1150	16.0	02/15/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2023	ND	207	104	200	5.65	
DRO >C10-C28*	102	10.0	02/15/2023	ND	209	104	200	4.50	
EXT DRO >C28-C36	26.5	10.0	02/15/2023	ND					

Surrogate: 1-Chlorooctane 97.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 40 4' (H230667-40)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	5.06		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.87		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.65		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.23	104	6.00	4.38		
Total BTEx	<0.300	0.300	02/17/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	02/15/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2023	ND	207	104	200	5.65	
DRO >C10-C28*	<10.0	10.0	02/15/2023	ND	209	104	200	4.50	
EXT DRO >C28-C36	<10.0	10.0	02/15/2023	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 41 4' (H230667-41)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	5.06		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.87		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.65		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.23	104	6.00	4.38		
Total BTEX	<0.300	0.300	02/17/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	02/15/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2023	ND	207	104	200	5.65	
DRO >C10-C28*	17.2	10.0	02/15/2023	ND	209	104	200	4.50	
EXT DRO >C28-C36	<10.0	10.0	02/15/2023	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 42 4' (H230667-42)**

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	5.06	
Toluene*	0.136	0.050	02/17/2023	ND	2.08	104	2.00	4.87	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.65	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.23	104	6.00	4.38	
Total BTEX	<0.300	0.300	02/17/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	02/15/2023	ND	448	112	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2023	ND	207	104	200	5.65	
<b>DRO &gt;C10-C28*</b>	<b>12.6</b>	10.0	02/15/2023	ND	209	104	200	4.50	
EXT DRO >C28-C36	<10.0	10.0	02/15/2023	ND					

Surrogate: 1-Chlorooctane 96.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.2 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 43 4' (H230667-43)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	5.06		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.87		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.65		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.23	104	6.00	4.38		
Total BTEX	<0.300	0.300	02/17/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	02/15/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	207	104	200	5.65	
DRO >C10-C28*	49.9	10.0	02/16/2023	ND	209	104	200	4.50	
EXT DRO >C28-C36	12.6	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 44 4' (H230667-44)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	5.06		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.87		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.65		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.23	104	6.00	4.38		
Total BTEX	<0.300	0.300	02/17/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	02/15/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	207	104	200	5.65	
DRO >C10-C28*	116	10.0	02/16/2023	ND	209	104	200	4.50	
EXT DRO >C28-C36	29.5	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 119 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 45 4' (H230667-45)**

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	02/17/2023	ND	2.08	104	2.00	5.06		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.87		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.65		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.23	104	6.00	4.38		
Total BTEX	<0.300	0.300	02/17/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	02/15/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	207	104	200	5.65	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	209	104	200	4.50	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 46 4' (H230667-46)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	5.06		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.87		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.65		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.23	104	6.00	4.38		
Total BTEx	<0.300	0.300	02/17/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	02/15/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	207	104	200	5.65	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	209	104	200	4.50	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 47 4' (H230667-47)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	5.06		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.87		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.65		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.23	104	6.00	4.38		
Total BTEx	<0.300	0.300	02/17/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	656	16.0	02/15/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	207	104	200	5.65	
DRO >C10-C28*	55.9	10.0	02/16/2023	ND	209	104	200	4.50	
EXT DRO >C28-C36	11.6	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 48 4' (H230667-48)**

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	5.06	
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.87	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.65	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.23	104	6.00	4.38	
Total BTEX	<0.300	0.300	02/17/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	02/15/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	207	104	200	5.65	
DRO >C10-C28*	42.0	10.0	02/16/2023	ND	209	104	200	4.50	
EXT DRO >C28-C36	11.4	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 125 % 48.2-134

Surrogate: 1-Chlorooctadecane 129 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
Reported: 02/20/2023  
Project Name: SUNDANCE SDS 11-1 SWD/BAT  
Project Number: 03B1417042  
Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 49 4' (H230667-49)**

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	5.06	
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.87	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.65	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.23	104	6.00	4.38	
Total BTEX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	02/15/2023	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	207	104	200	5.65	
DRO >C10-C28*	16.0	10.0	02/16/2023	ND	209	104	200	4.50	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
Reported: 02/20/2023  
Project Name: SUNDANCE SDS 11-1 SWD/BAT  
Project Number: 03B1417042  
Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 50 4' (H230667-50)**

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	02/17/2023	ND	2.08	104	2.00	5.06		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.87		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.65		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.23	104	6.00	4.38		
Total BTEX	<0.300	0.300	02/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	02/15/2023	ND	448	112	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2023	ND	213	107	200	4.62	
DRO >C10-C28*	57.9	10.0	02/15/2023	ND	206	103	200	4.84	
EXT DRO >C28-C36	10.9	10.0	02/15/2023	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 51 4' (H230667-51)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	5.06		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.87		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.65		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.23	104	6.00	4.38		
Total BTEX	<0.300	0.300	02/17/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	608	16.0	02/15/2023	ND	416	104	400	3.77	QM-07	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/15/2023	ND	213	107	200	4.62	
DRO >C10-C28*	460	10.0	02/15/2023	ND	206	103	200	4.84	
EXT DRO >C28-C36	80.7	10.0	02/15/2023	ND					

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 52 4' (H230667-52)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	5.06		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.87		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.65		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.23	104	6.00	4.38		
Total BTEX	<0.300	0.300	02/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	02/15/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	213	107	200	4.62	
DRO >C10-C28*	248	10.0	02/16/2023	ND	206	103	200	4.84	
EXT DRO >C28-C36	46.9	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 119 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 53 4' (H230667-53)**

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	5.06	
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.87	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.65	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.23	104	6.00	4.38	
Total BTEx	<0.300	0.300	02/17/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/15/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	213	107	200	4.62	
DRO >C10-C28*	19.0	10.0	02/16/2023	ND	206	103	200	4.84	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 54 4' (H230667-54)**

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	02/17/2023	ND	2.08	104	2.00	5.06		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.87		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.65		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.23	104	6.00	4.38		
Total BTEX	<0.300	0.300	02/17/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	02/15/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	213	107	200	4.62	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	206	103	200	4.84	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 55 4' (H230667-55)**

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	02/17/2023	ND	2.08	104	2.00	5.06	
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.87	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.65	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.23	104	6.00	4.38	
Total BTEx	<0.300	0.300	02/17/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/15/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	213	107	200	4.62	
DRO >C10-C28*	14.7	10.0	02/16/2023	ND	206	103	200	4.84	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 56 4' (H230667-56)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	5.06		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.87		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.65		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.23	104	6.00	4.38		
Total BTEX	<0.300	0.300	02/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	02/15/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	213	107	200	4.62	
DRO >C10-C28*	454	10.0	02/16/2023	ND	206	103	200	4.84	
EXT DRO >C28-C36	141	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 57 4' (H230667-57)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	5.06		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.87		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.65		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.23	104	6.00	4.38		
Total BTEx	<0.300	0.300	02/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	02/15/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	213	107	200	4.62	
DRO >C10-C28*	378	10.0	02/16/2023	ND	206	103	200	4.84	
EXT DRO >C28-C36	92.1	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 58 4' (H230667-58)**

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	02/17/2023	ND	2.08	104	2.00	5.06		
Toluene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.87		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	2.08	104	2.00	4.65		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	6.23	104	6.00	4.38		
Total BTEX	<0.300	0.300	02/17/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	02/15/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	213	107	200	4.62	
DRO >C10-C28*	190	10.0	02/16/2023	ND	206	103	200	4.84	
EXT DRO >C28-C36	49.9	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
Reported: 02/20/2023  
Project Name: SUNDANCE SDS 11-1 SWD/BAT  
Project Number: 03B1417042  
Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 59 4' (H230667-59)**

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	02/17/2023	ND	2.05	103	2.00	3.69		
Toluene*	<0.050	0.050	02/17/2023	ND	2.02	101	2.00	3.68		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	1.96	98.1	2.00	4.10		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	5.97	99.5	6.00	3.58		
Total BTEx	<0.300	0.300	02/17/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	02/15/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	213	107	200	4.62	
DRO >C10-C28*	112	10.0	02/16/2023	ND	206	103	200	4.84	
EXT DRO >C28-C36	32.1	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 60 4' (H230667-60)**

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	02/17/2023	ND	2.05	103	2.00	3.69	
Toluene*	<0.050	0.050	02/17/2023	ND	2.02	101	2.00	3.68	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	1.96	98.1	2.00	4.10	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	5.97	99.5	6.00	3.58	
Total BTEX	<0.300	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	02/15/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	213	107	200	4.62	
DRO >C10-C28*	418	10.0	02/16/2023	ND	206	103	200	4.84	
EXT DRO >C28-C36	86.5	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 142 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 61 4' (H230667-61)**

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	02/17/2023	ND	2.05	103	2.00	3.69	
Toluene*	<0.050	0.050	02/17/2023	ND	2.02	101	2.00	3.68	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	1.96	98.1	2.00	4.10	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	5.97	99.5	6.00	3.58	
Total BTEX	<0.300	0.300	02/17/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1180	16.0	02/15/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	213	107	200	4.62	
DRO >C10-C28*	13.8	10.0	02/16/2023	ND	206	103	200	4.84	
EXT DRO >C28-C36	15.6	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 62 4' (H230667-62)**

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	02/17/2023	ND	2.05	103	2.00	3.69	
Toluene*	<0.050	0.050	02/17/2023	ND	2.02	101	2.00	3.68	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	1.96	98.1	2.00	4.10	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	5.97	99.5	6.00	3.58	
Total BTEX	<0.300	0.300	02/17/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	02/15/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	213	107	200	4.62	
DRO >C10-C28*	17.9	10.0	02/16/2023	ND	206	103	200	4.84	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 63 4' (H230667-63)**

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	02/17/2023	ND	2.05	103	2.00	3.69		
Toluene*	<0.050	0.050	02/17/2023	ND	2.02	101	2.00	3.68		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	1.96	98.1	2.00	4.10		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	5.97	99.5	6.00	3.58		
Total BTEx	<0.300	0.300	02/17/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	02/15/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	213	107	200	4.62	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	206	103	200	4.84	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FS - 64 4' (H230667-64)**

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	02/17/2023	ND	2.05	103	2.00	3.69	
Toluene*	<0.050	0.050	02/17/2023	ND	2.02	101	2.00	3.68	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	1.96	98.1	2.00	4.10	
Total Xylenes*	0.455	0.150	02/17/2023	ND	5.97	99.5	6.00	3.58	
Total BTEX	0.455	0.300	02/17/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 131 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/15/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	54.6	10.0	02/16/2023	ND	213	107	200	4.62	
DRO >C10-C28*	1960	10.0	02/16/2023	ND	206	103	200	4.84	
EXT DRO >C28-C36	250	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 123 % 48.2-134

Surrogate: 1-Chlorooctadecane 133 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 1 0-4' (H230667-65)**

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	02/17/2023	ND	2.05	103	2.00	3.69		
Toluene*	<0.050	0.050	02/17/2023	ND	2.02	101	2.00	3.68		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	1.96	98.1	2.00	4.10		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	5.97	99.5	6.00	3.58		
Total BTEX	<0.300	0.300	02/17/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	02/15/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	213	107	200	4.62	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	206	103	200	4.84	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
Reported: 02/20/2023  
Project Name: SUNDANCE SDS 11-1 SWD/BAT  
Project Number: 03B1417042  
Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 2 0-4' (H230667-66)**

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	02/17/2023	ND	2.05	103	2.00	3.69	
Toluene*	<0.050	0.050	02/17/2023	ND	2.02	101	2.00	3.68	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	1.96	98.1	2.00	4.10	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	5.97	99.5	6.00	3.58	
Total BTEx	<0.300	0.300	02/17/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	02/15/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	213	107	200	4.62	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	206	103	200	4.84	
EXT DRO >C28-C36	23.2	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 3 0-4' (H230667-67)**

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	02/17/2023	ND	2.05	103	2.00	3.69	
Toluene*	<0.050	0.050	02/17/2023	ND	2.02	101	2.00	3.68	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	1.96	98.1	2.00	4.10	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	5.97	99.5	6.00	3.58	
Total BTEX	<0.300	0.300	02/17/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/15/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	213	107	200	4.62	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	206	103	200	4.84	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 4 0-4' (H230667-68)**

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	02/17/2023	ND	2.05	103	2.00	3.69		
Toluene*	<0.050	0.050	02/17/2023	ND	2.02	101	2.00	3.68		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	1.96	98.1	2.00	4.10		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	5.97	99.5	6.00	3.58		
Total BTEX	<0.300	0.300	02/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/15/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	213	107	200	4.62	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	206	103	200	4.84	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 5 0-4' (H230667-69)**

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	02/17/2023	ND	2.05	103	2.00	3.69	
Toluene*	<0.050	0.050	02/17/2023	ND	2.02	101	2.00	3.68	
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	1.96	98.1	2.00	4.10	
Total Xylenes*	<0.150	0.150	02/17/2023	ND	5.97	99.5	6.00	3.58	
Total BTEX	<0.300	0.300	02/17/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/15/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	213	107	200	4.62	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	206	103	200	4.84	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 02/13/2023  
Reported: 02/20/2023  
Project Name: SUNDANCE SDS 11-1 SWD/BAT  
Project Number: 03B1417042  
Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 6 0-4' (H230667-70)**

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	02/17/2023	ND	2.05	103	2.00	3.69		
Toluene*	<0.050	0.050	02/17/2023	ND	2.02	101	2.00	3.68		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	1.96	98.1	2.00	4.10		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	5.97	99.5	6.00	3.58		
Total BTEx	<0.300	0.300	02/17/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/15/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	202	101	200	0.302	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	180	89.9	200	5.34	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 7 0-4' (H230667-71)**

BTEx 8021B		mg/kg		Analyzed By: JH				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/17/2023	ND	2.05	103	2.00	3.69		
Toluene*	<0.050	0.050	02/17/2023	ND	2.02	101	2.00	3.68		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	1.96	98.1	2.00	4.10		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	5.97	99.5	6.00	3.58		
Total BTEX	<0.300	0.300	02/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 135 % 71.5-134

Chloride, SM4500Cl-B			mg/kg					Analyzed By: AC	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	02/15/2023	ND	416	104	400	3.77	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	44.0	10.0	02/16/2023	ND	202	101	200	0.302	
DRO >C10-C28*	2560	10.0	02/16/2023	ND	180	89.9	200	5.34	
EXT DRO >C28-C36	534	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 8 0-4' (H230667-72)**

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	02/17/2023	ND	2.05	103	2.00	3.69		
Toluene*	<0.050	0.050	02/17/2023	ND	2.02	101	2.00	3.68		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	1.96	98.1	2.00	4.10		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	5.97	99.5	6.00	3.58		
Total BTEx	<0.300	0.300	02/17/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/15/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/17/2023	ND	202	101	200	0.302	
DRO >C10-C28*	<10.0	10.0	02/17/2023	ND	180	89.9	200	5.34	
EXT DRO >C28-C36	<10.0	10.0	02/17/2023	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 02/13/2023  
 Reported: 02/20/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 02/13/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW - 9 0-4' (H230667-73)**

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	02/17/2023	ND	2.05	103	2.00	3.69		
Toluene*	<0.050	0.050	02/17/2023	ND	2.02	101	2.00	3.68		
Ethylbenzene*	<0.050	0.050	02/17/2023	ND	1.96	98.1	2.00	4.10		
Total Xylenes*	<0.150	0.150	02/17/2023	ND	5.97	99.5	6.00	3.58		
Total BTEx	<0.300	0.300	02/17/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	02/15/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/16/2023	ND	202	101	200	0.302	
DRO >C10-C28*	<10.0	10.0	02/16/2023	ND	180	89.9	200	5.34	
EXT DRO >C28-C36	<10.0	10.0	02/16/2023	ND					

Surrogate: 1-Chlorooctane 116 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager

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### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
GC-NC	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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

---

Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2009

[illegible]



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Pg 2 of 8

<b>Company Name:</b> Ensolum, LLC		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>	
<b>Project Manager:</b> Beaux Jennings		<b>P.O. #:</b>		<b>Company:</b> Oxy USA, Inc.	
<b>Address:</b> 601 N. Marland St. STE 400		<b>Attn:</b> Wade Dittich		<b>Address:</b>	
<b>City:</b> Midland		<b>State:</b> TX		<b>Zip:</b> 79701	
<b>Phone #:</b> 210-219-8858		<b>Fax #:</b>		<b>City:</b>	
<b>Project #:</b> 03B1419042		<b>Project Owner:</b>		<b>State:</b>	
<b>Project Location:</b> Sundance SDS 11-1 SWD/BAT		<b>Phone #:</b> 575-390-2828		<b>Zip:</b>	
<b>Sample Name:</b> KS Sdkm		<b>Fax #:</b>		<b>Other:</b>	
<b>FOR LAB USE ONLY</b>		<b>MATRIX</b>		<b>PRESERV</b>	
<b>Lab I.D.</b>	<b>Sample I.D.</b>	<b>Sample Depth (feet)</b>	<b>(G)RAB OR (C)OMP.</b>	<b># CONTAINERS</b>	<b>DATE</b>
11	FS-11	4	<input checked="" type="checkbox"/>	1	2/13/23
12	FS-12	4	<input checked="" type="checkbox"/>	1	2/13/23
13	FS-13	4	<input checked="" type="checkbox"/>	1	2/13/23
14	FS-14	4	<input checked="" type="checkbox"/>	1	2/13/23
15	FS-15	4	<input checked="" type="checkbox"/>	1	2/13/23
16	FS-16	4	<input checked="" type="checkbox"/>	1	2/13/23
17	FS-17	4	<input checked="" type="checkbox"/>	1	2/13/23
18	FS-18	4	<input checked="" type="checkbox"/>	1	2/13/23
19	FS-19	4	<input checked="" type="checkbox"/>	1	2/13/23
20	FS-20	4	<input checked="" type="checkbox"/>	1	2/13/23
			<b>GROUNDWATER</b>	<b>WASTEWATER</b>	<b>SOIL</b>
			<b>OIL</b>	<b>SLUDGE</b>	<b>OTHER :</b>
			<b>ACID/BASE:</b>	<b>ICE / COOL</b>	<b>OTHER :</b>
			<b>DATE</b>	<b>TIME</b>	<b>ANALYSIS REQUEST</b>
			2/13/23	1155	BTEX
			2/13/23	1156	TPH
			2/13/23	1157	Chlorides
			2/13/23	1158	
			2/13/23	1159	
			2/13/23	1200	
			2/13/23	1201	
			2/13/23	1202	
			2/13/23	1203	
			2/13/23	1204	
			<b>REMARKS:</b>		
			All Results are emailed. Please provide Email address: Blennings@ensolum.com		
			<b>Verbal Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Phone #:</b>		
			<b>Turnaround Time:</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush		
			<b>Thermometer ID #113</b> <b>Corrected Temp. °C</b> <b>Observed Temp. °C</b>		
			<b>Bacteria (only)</b> <b>Sample Condition</b>		
			<b>Cool Intact</b> <b>Yes</b> <input type="checkbox"/> <b>No</b> <input type="checkbox"/>		
			<b>Corrected Temp. °C</b>		
			<b>Relinquished By:</b>		
			<b>Date:</b> 2/13/23 <b>Received By:</b> Shadi Qurey		
			<b>Time:</b> 1518		
			<b>Relinquished By:</b>		
			<b>Date:</b> <b>Time:</b>		
			<b>Delivered By: (Circle One)</b>		
			<b>Sampler - UPS - Bus - Other:</b>		

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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Pg. 30 of 8

Company Name: Ensolum, LLC

Project Manager: Beaux Jennings

Address: 601 N Marlenfeld Street, Suite 400

City: Midland State: TX Zip: 79701

Phone #: 210-219-8858 Fax #:

Project #: 03R1412042 Project Owner:

Project Name: Surface SDS 141 SWD/BAT

Project Location: Eddy County, NM

Sample Name: KS Sam

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.		# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS REQUEST			
						GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :			ACID/BASE:	ICE / COOL	OTHER :	

14300107	FS-21	4			1							2-13-23	1205	BTEX	TPH	Chlorides	
21	FS-22	4			1							2-13-23	1206				
22	FS-23	4			1							2-13-23	1207				
23	FS-24	4			1							2-13-23	1208				
24	FS-25	4			1							2-13-23	1209				
25	FS-26	4			1							2-13-23	1210				
26	FS-27	4			1							2-13-23	1211				
27	FS-28	4			1							2-13-23	1212				
28	FS-29	4			1							2-13-23	1213				
29	FS-30	4			1							2-13-23	1214				

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Relinquished By: [Signature] Date: 2/13/23 Received By: [Signature] Date: 2/13/23

Delivered By: (Circle One) Observed Temp: 24.4 Sample Condition: Cool Intact Yes Yes No No Checked By: (Initials) [Signature]

Sampler - UPS - Bus - Other: Corrected Temp: 1.8

Turnaround Time: Standard Rush Bacteria (only) Sample Condition Cool Intact Yes Yes No No Corrected Temp: 0.6

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



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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

pg. 4 of 8

Company Name: Ensolum, LLC						P.O. #:						BILL TO						ANALYSIS REQUEST					
Project Manager: Beaux Jennings						Company: Oxy USA Inc.																	
Address: 601 N Marienfield Street, Suite 400						Attn: Wade Dittrich																	
City: Midland						State: TX Zip: 79701																	
Phone #: 210-219-8858						Address:																	
Fax #: 210-219-8858						City:																	
Project #: 03B14T042						State: ZIP:																	
Project Location: Surface SDS 11-1 SMD/BAT						Phone #: 575-390-2828																	
Sample Name: KS SAV						Fax #:																	
FOR LAB USE ONLY						PRESERV.						SAMPLING											
Lab I.D.						Depth (feet)						(G)RAB OR (C)OMP.						# CONTAINERS					
												GROUNDWATER											
												WASTEWATER											
												SOIL											
												OIL											
												SLUDGE											
												OTHER :											
												ACID/BASE:											
												ICE / COOL											
												OTHER :											
												DATE						TIME					
H230067						FS-31						X						2-4-23 12:15					
31						FS-32						X						2-13-23 12:16					
32						FS-33						X						2-13-23 12:17					
33						FS-34						X						2-13-23 12:19					
34						FS-35						X						2-13-23 12:20					
35						FS-36						X						2-13-23 12:22					
36						FS-37						X						2-13-23 12:24					
37						FS-38						X						2-13-23 12:26					
38						FS-39						X						2-13-23 12:28					
39						FS-40						X						2-13-23 12:28					
40																							
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Relinquished By: [Signature]												All Results are emailed. Please provide Email address:											
Date: 2/13/23 Time: 15:18												REMARKS:											
Delivered By: (Circle One) Observed Temp.: 29.4°C Corrected Temp.: 1.8°C Sample Condition: Cool Intact Yes No Checked BY: (Initials) Turnaround Time: Standard Rush Bacteria (only) Sample Condition: Cool Intact Yes No Corrected Temp.: °C																							



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Q8-508

Company Name: Ensolum, LLC

Project Manager: Beaux Jennings

Address: 601 N Marientfeld Street, Suite 400

City: Midland

Phone #: 210-219-8858

Project #: 03B1417042

Project Name: Sulfate SDS 11-1 SWD/BAIT

Project Location: Eddy County, NM

Sample Name: KS SWM

BILL TO

P.O. #:

Company: Oxy USA Inc.

Attn: Wade Dittich

Address:

City:

State:

Zip:

Phone #: 575-390-2828

Fax #:

ANALYSIS REQUEST

Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS REQUEST				
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :							
41	FS-41	4	C	1	<input checked="" type="checkbox"/>						1-13-23	1230	X	✓	X		
42	FS-42	4	C	1	<input checked="" type="checkbox"/>						2-13-23	1232	X	✓	X		
43	FS-43	4	C	1	<input checked="" type="checkbox"/>						2-13-23	1234	X	✓	X		
44	FS-44	4	C	1	<input checked="" type="checkbox"/>						2-13-23	1236	X	✓	X		
45	FS-45	4	C	1	<input checked="" type="checkbox"/>						2-13-23	1238	X	✓	X		
46	FS-46	4	C	1	<input checked="" type="checkbox"/>						2-13-23	1240	X	✓	X		
47	FS-47	4	C	1	<input checked="" type="checkbox"/>						2-13-23	1242	X	✓	X		
48	FS-48	4	C	1	<input checked="" type="checkbox"/>						2-13-23	1244	X	✓	X		
49	FS-49	4	C	1	<input checked="" type="checkbox"/>						2-13-23	1246	X	✓	X		
50	FS-50	4	C	1	<input checked="" type="checkbox"/>						2-13-23	1248	X	✓	X		

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Relinquished By:

Date: 2/13/23  
Time: 1518

Received By: Speediequerry

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

All Results are emailed. Please provide Email address:

Relinquished By:

Date:   
Time:   
Received By:   
REMARKS:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

Observed Temp.: 84.4°C  
Corrected Temp.: 1.8°C

Sample Condition  
Cool Intact ☒  
Yes ☐  
No ☐

CHECKED BY: (initials)

Turnaround Time:

Thermometer ID #113

Standard ☒ Bacteria (only) ☐  
Cool Intact ☐  
Yes ☐  
No ☐

Sample Condition  
Observed Temp.:   
Corrected Temp.:   
C

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



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### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

600

Company Name: Ensolum, LLC						<b>BILL TO</b>		ANALYSIS REQUEST							
Project Manager: Beaux Jennings								P.O. #:							
Address: 601 N Marientfeld Street, Suite 400								Company: Oxy USA Inc.							
City: Midland						State: TX Zip: 79701		Attn: Wade Dittrich							
Phone #: 210-219-8858						Fax #:		Address:							
Project #: 03B14170412						Project Owner:		City:							
Project Name: Sungrade SDS 11-1 SWD/BAT						State:		Zip:							
Project Location: Eddy County, NM						Phone #: 575-390-2828									
Sampler Name: KS SHM						Fax #:									
FOR LAB USE ONLY															
Lab I.D.		Sample I.D.		Depth (feet)		(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX		PRESERV.		SAMPLING	
										GROUNDWATER					
										WASTEWATER					
										SOIL					
										OIL					
										SLUDGE					
										OTHER :					
										ACID/BASE:					
										ICE / COOL					
										OTHER :					
										DATE		TIME			
H3304A07		FS-51		4		C		1		X		2-13-23		1250	
51		FS-52		4		C		1		X		2-13-23		1252	
53		FS-53		4		C		1		X		2-13-23		54	
54		FS-54		4		C		1		X		2-13-23		56	
55		FS-55		4		C		1		X		2-13-23		58	
56		FS-56		4		C		1		X		2-13-23		1300	
57		FS-57		4		C		1		X		2-13-23		1304	
58		FS-58		4		C		1		X		2-13-23		1306	
59		FS-59		4		C		1		X		2-13-23		1310	
60		FS-60		4		C		1		X		2-13-23		1315	
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Relinquished By: [Signature]						Date: 2-13-23		Time: 1518		Received By: [Signature]		Date: 2-13-23		Time: 1518	
Relinquished By: [Signature]						Date:		Time:		Received By:		Date:		Time:	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:						Observed Temp.: 24.1 Corrected Temp.: 1.8		Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		CHECKED BY: [Signature]		Turnaround Time:		Standard Rush <input checked="" type="checkbox"/>	
												Thermometer ID #113		Corrosion Factor .05°C	
												Bacteria (only) Sample Condition Cool Intact Observed Temp.: °C		Corrected Temp.: °C	





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### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

808

Company Name: Ensolum, LLC						P.O. #:		BILL TO															
Project Manager: Beaux Jennings								ANALYSIS REQUEST															
Address: 601 N Marientfield Street, Suite 400						Company: Oxy USA Inc.																	
City: Midland						Attn: Wade Dittrich																	
State: TX Zip: 79701						Address:																	
Phone #: 210-219-8858						Fax #:																	
Project #: 0381417042						Project Owner:																	
Project Name: Subspace SDS 11-1 SWD/BAT						City:																	
Project Location: Eddy County, NM						State: Zip:																	
Sample Name: KS SHW						Phone #: 575-390-2828																	
FOR LAB USE ONLY						Fax #:																	
Lab I.D.						Depth (feet)		(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX		PRESERV.		SAMPLING							
Sample I.D.												GROUNDWATER											
												WASTEWATER											
												SOIL											
												OIL											
												SLUDGE											
												OTHER :											
												ACID/BASE:											
												ICE / COOL											
												OTHER :											
												DATE		TIME									
H330467						SW-1		C-1		X		21/3/23		1350		BTEx							
425						SW-2		C-1		X		21/3/23		1351		TPH							
419						SW-3		C-1		X		21/3/23		1352		Chlorides							
407						SW-4		C-1		X		21/3/23		1353									
408						SW-5		C-1		X		21/3/23		1354									
409						SW-6		C-1		X		21/3/23		1355									
70						SW-7		C-1		X		21/3/23		1357									
71						SW-8		C-1		X		21/3/23		1358									
72						SW-9		C-1		X		21/3/23		1400									
73																							
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Relinquished By:						Date: 2/13/23 Time: 1518						Received By: Rod Riquery											
Relinquished By:						Date:						Received By:											
Time:																							
Delivered By: (Circle One) Sampler - UPS - Bus - Other:						Observed Temp.: 84.4°C Corrected Temp.: 1.8°C						Sample Condition <input type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No						CHECKED BY: [Signature]					
Turnaround Time:						Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>						Bacteria (only) Sample Condition <input type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No						Thermometer ID #113 Corrosion Factor: 0.65°C					
REMARKS:						Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:						All Results are emailed. Please provide Email address:											



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March 06, 2023

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

RE: SUNDANCE SDS 11-1 SWD/BAT

Enclosed are the results of analyses for samples received by the laboratory on 03/02/23 10:58.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene  
Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 03/02/2023  
 Reported: 03/06/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 03/02/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SW - 7 0 - 4' (H230974-01)**

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2023	ND	185	92.4	200	3.52	
DRO >C10-C28*	<10.0	10.0	03/03/2023	ND	195	97.7	200	0.0686	
EXT DRO >C28-C36	<10.0	10.0	03/03/2023	ND					
<hr/>									
Surrogate: 1-Chlorooctane	76.8 %	48.2-134							
Surrogate: 1-Chlorooctadecane	77.8 %	49.1-148							

**Sample ID: FS - 21 4' (H230974-02)**

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2023	ND	185	92.4	200	3.52	
<b>DRO &gt;C10-C28*</b>	<b>139</b>	10.0	03/03/2023	ND	195	97.7	200	0.0686	
<b>EXT DRO &gt;C28-C36</b>	<b>48.9</b>	10.0	03/03/2023	ND					
<hr/>									
Surrogate: 1-Chlorooctane	72.5 %	48.2-134							
Surrogate: 1-Chlorooctadecane	87.2 %	49.1-148							

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 03/02/2023  
 Reported: 03/06/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 03/02/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: FS - 26 4' (H230974-03)**

TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2023	ND	185	92.4	200	3.52	
DRO >C10-C28*	<10.0	10.0	03/03/2023	ND	195	97.7	200	0.0686	
EXT DRO >C28-C36	<10.0	10.0	03/03/2023	ND					
Surrogate: 1-Chlorooctane	93.3 %	48.2-134							
Surrogate: 1-Chlorooctadecane	97.9 %	49.1-148							

**Sample ID: FS - 36 4' (H230974-04)**

TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2023	ND	185	92.4	200	3.52	
<b>DRO &gt;C10-C28*</b>	<b>334</b>	10.0	03/03/2023	ND	195	97.7	200	0.0686	
<b>EXT DRO &gt;C28-C36</b>	<b>83.7</b>	10.0	03/03/2023	ND					
Surrogate: 1-Chlorooctane	91.6 %	48.2-134							
Surrogate: 1-Chlorooctadecane	106 %	49.1-148							

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 03/02/2023  
 Reported: 03/06/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

Sampling Date: 03/02/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: FS - 64 4' (H230974-05)**

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/03/2023	ND	185	92.4	200	3.52	
<b>DRO &gt;C10-C28*</b>	<b>217</b>	10.0	03/03/2023	ND	195	97.7	200	0.0686	
<b>EXT DRO &gt;C28-C36</b>	<b>43.0</b>	10.0	03/03/2023	ND					
Surrogate: 1-Chlorooctane	97.1 %	48.2-134							
Surrogate: 1-Chlorooctadecane	109 %	49.1-148							

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



---

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### Notes and Definitions

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

---

Cardinal Laboratories

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A handwritten signature in black ink, appearing to read "C. D. Keene", is written over a horizontal line.

---

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	P.O. #:	
Project Manager:	Beaux Jennings	Company:	Oxy USA, Inc.
Address:	601 N. Marland St. STE 400	Attn:	Wade Ditch
City:	Midland	State:	TX
Phone #:	210-219-8858	Fax #:	79701
Project #:	0301417042	Project Owner:	
Project Name:	Studence S.D.S 11-1 SWD/BAT	State:	Zip:
Project Location:	32.240480, -103.735220	Phone #:	575-390-2828
Sample Name:	Keiley Smith	Fax #:	

Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.		# CONTAINERS	MATRIX							PRESERV.	SAMPLING	DATE	TIME										
						GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :												
H23094	SW-7	0-4'						X							X	3-2-23	0852	+								
	FS-21	4'						X							X	3-2-23	0854	+								
	FS-26	4'						X							X	3-2-23	0856	+								
	FS-36	4'						X							X	3-2-23	0858	+								
	FS-44	4'						X							X	3-2-23	0900	+								

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Relinquished By:	Date: 3-2-23	Received By:	Beaux Jennings	Verbal Result:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:	
Relinquished By:	Date: 1858	Received By:		All Results are emailed. Please provide Email address:			
Delivered By: (Circle One)	Observed Temp.: °C 2.8	Sample Condition	CHECKED BY: (Initials)	Turnaround Time:	Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>	Bacteria (only)	Sample Condition
Sampler - UPS - Bus - Other:	Corrected Temp.: °C 2.2	Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/>		Thermometer ID #113	3 Day	Cool <input type="checkbox"/> Intact <input type="checkbox"/>	Observed Temp.: °C
		No <input type="checkbox"/> Yes <input type="checkbox"/>		Correction Factor -0.5°C		No <input type="checkbox"/> Yes <input type="checkbox"/>	Corrected Temp.: °C

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



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

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September 25, 2023

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

RE: SUNDANCE SDS 11-1 SWD/BAT

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

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene  
Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

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

**Sample ID: FS - 65 4' (H235080-01)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2023	ND	2.07	103	2.00	1.08	
Toluene*	<0.050	0.050	09/20/2023	ND	2.10	105	2.00	0.772	
Ethylbenzene*	<0.050	0.050	09/20/2023	ND	2.07	103	2.00	1.06	
Total Xylenes*	<0.150	0.150	09/20/2023	ND	6.30	105	6.00	0.404	
Total BTX	<0.300	0.300	09/20/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	09/20/2023	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	186	92.9	200	4.70	
DRO >C10-C28*	35.2	10.0	09/20/2023	ND	179	89.3	200	0.937	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 79.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.5 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

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

**Sample ID: FS - 66 4' (H235080-02)**

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2023	ND	2.17	109	2.00	3.50	
Toluene*	<0.050	0.050	09/20/2023	ND	2.15	108	2.00	2.55	
Ethylbenzene*	<0.050	0.050	09/20/2023	ND	2.30	115	2.00	3.54	
Total Xylenes*	<0.150	0.150	09/20/2023	ND	6.85	114	6.00	2.15	
Total BTEX	<0.300	0.300	09/20/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	09/20/2023	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	186	92.9	200	4.70	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	179	89.3	200	0.937	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 77.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

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

**Sample ID: FS - 67 4' (H235080-03)**

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2023	ND	2.17	109	2.00	3.50	
Toluene*	<0.050	0.050	09/20/2023	ND	2.15	108	2.00	2.55	
Ethylbenzene*	<0.050	0.050	09/20/2023	ND	2.30	115	2.00	3.54	
Total Xylenes*	<0.150	0.150	09/20/2023	ND	6.85	114	6.00	2.15	
Total BTX	<0.300	0.300	09/20/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	832	16.0	09/20/2023	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	186	92.9	200	4.70	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	179	89.3	200	0.937	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 88.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

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

**Sample ID: FS - 68 4' (H235080-04)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/20/2023	ND	2.17	109	2.00	3.50		
Toluene*	<0.050	0.050	09/20/2023	ND	2.15	108	2.00	2.55		
Ethylbenzene*	<0.050	0.050	09/20/2023	ND	2.30	115	2.00	3.54		
Total Xylenes*	<0.150	0.150	09/20/2023	ND	6.85	114	6.00	2.15		
Total BTEX	<0.300	0.300	09/20/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	800	16.0	09/20/2023	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	186	92.9	200	4.70	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	179	89.3	200	0.937	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 67.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 71.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

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

**Sample ID: FS - 69 4' (H235080-05)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/20/2023	ND	2.17	109	2.00	3.50		
Toluene*	<0.050	0.050	09/20/2023	ND	2.15	108	2.00	2.55		
Ethylbenzene*	<0.050	0.050	09/20/2023	ND	2.30	115	2.00	3.54		
Total Xylenes*	<0.150	0.150	09/20/2023	ND	6.85	114	6.00	2.15		
Total BTEX	<0.300	0.300	09/20/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	816	16.0	09/20/2023	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	186	92.9	200	4.70	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	179	89.3	200	0.937	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 72.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

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

**Sample ID: FS - 70 4' (H235080-06)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/20/2023	ND	2.17	109	2.00	3.50		
Toluene*	<0.050	0.050	09/20/2023	ND	2.15	108	2.00	2.55		
Ethylbenzene*	<0.050	0.050	09/20/2023	ND	2.30	115	2.00	3.54		
Total Xylenes*	<0.150	0.150	09/20/2023	ND	6.85	114	6.00	2.15		
Total BTEX	<0.300	0.300	09/20/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1650	16.0	09/20/2023	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	201	101	200	1.21	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	204	102	200	0.717	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 83.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.9 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

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

**Sample ID: FS - 71 4' (H235080-07)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/20/2023	ND	2.17	109	2.00	3.50		
Toluene*	<0.050	0.050	09/20/2023	ND	2.15	108	2.00	2.55		
Ethylbenzene*	<0.050	0.050	09/20/2023	ND	2.30	115	2.00	3.54		
Total Xylenes*	<0.150	0.150	09/20/2023	ND	6.85	114	6.00	2.15		
Total BTEX	<0.300	0.300	09/20/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	09/20/2023	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	201	101	200	1.21	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	204	102	200	0.717	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 86.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

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

**Sample ID: FS - 72 4' (H235080-08)**

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2023	ND	2.17	109	2.00	3.50	
Toluene*	<0.050	0.050	09/20/2023	ND	2.15	108	2.00	2.55	
Ethylbenzene*	<0.050	0.050	09/20/2023	ND	2.30	115	2.00	3.54	
Total Xylenes*	<0.150	0.150	09/20/2023	ND	6.85	114	6.00	2.15	
Total BTEX	<0.300	0.300	09/20/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	09/25/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	201	101	200	1.21	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	204	102	200	0.717	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 87.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

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

**Sample ID: FS - 73 4' (H235080-09)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/20/2023	ND	2.17	109	2.00	3.50		
Toluene*	<0.050	0.050	09/20/2023	ND	2.15	108	2.00	2.55		
Ethylbenzene*	<0.050	0.050	09/20/2023	ND	2.30	115	2.00	3.54		
Total Xylenes*	<0.150	0.150	09/20/2023	ND	6.85	114	6.00	2.15		
Total BTEX	<0.300	0.300	09/20/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1090	16.0	09/25/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	201	101	200	1.21	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	204	102	200	0.717	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 85.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.7 % 49.1-148

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**Analytical Results For:**

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

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

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

**Sample ID: FS - 74 4' (H235080-10)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/20/2023	ND	2.17	109	2.00	3.50		
Toluene*	<0.050	0.050	09/20/2023	ND	2.15	108	2.00	2.55		
Ethylbenzene*	<0.050	0.050	09/20/2023	ND	2.30	115	2.00	3.54		
Total Xylenes*	<0.150	0.150	09/20/2023	ND	6.85	114	6.00	2.15		
Total BTEx	<0.300	0.300	09/20/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	624	16.0	09/25/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	201	101	200	1.21	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	204	102	200	0.717	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 75.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.4 % 49.1-148

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**Analytical Results For:**

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

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

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

**Sample ID: FS - 75 4' (H235080-11)**

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/20/2023	ND	2.17	109	2.00	3.50		
Toluene*	<0.050	0.050	09/20/2023	ND	2.15	108	2.00	2.55		
Ethylbenzene*	<0.050	0.050	09/20/2023	ND	2.30	115	2.00	3.54		
Total Xylenes*	<0.150	0.150	09/20/2023	ND	6.85	114	6.00	2.15		
Total BTX	<0.300	0.300	09/20/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	09/25/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	201	101	200	1.21	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	204	102	200	0.717	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 85.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.2 % 49.1-148

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**Analytical Results For:**

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

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

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

**Sample ID: FS - 76 4' (H235080-12)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/20/2023	ND	2.17	109	2.00	3.50		
Toluene*	<0.050	0.050	09/20/2023	ND	2.15	108	2.00	2.55		
Ethylbenzene*	<0.050	0.050	09/20/2023	ND	2.30	115	2.00	3.54		
Total Xylenes*	<0.150	0.150	09/20/2023	ND	6.85	114	6.00	2.15		
Total BTEX	<0.300	0.300	09/20/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	09/25/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	201	101	200	1.21	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	204	102	200	0.717	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 88.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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**Analytical Results For:**

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

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

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

**Sample ID: FS - 77 4' (H235080-13)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/20/2023	ND	2.17	109	2.00	3.50		
Toluene*	<0.050	0.050	09/20/2023	ND	2.15	108	2.00	2.55		
Ethylbenzene*	<0.050	0.050	09/20/2023	ND	2.30	115	2.00	3.54		
Total Xylenes*	<0.150	0.150	09/20/2023	ND	6.85	114	6.00	2.15		
Total BTEX	<0.300	0.300	09/20/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	09/25/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	201	101	200	1.21	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	204	102	200	0.717	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 84.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.7 % 49.1-148

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**Analytical Results For:**

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

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

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

**Sample ID: FS - 78 4' (H235080-14)**

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2023	ND	2.17	109	2.00	3.50	
Toluene*	<0.050	0.050	09/20/2023	ND	2.15	108	2.00	2.55	
Ethylbenzene*	<0.050	0.050	09/20/2023	ND	2.30	115	2.00	3.54	
Total Xylenes*	<0.150	0.150	09/20/2023	ND	6.85	114	6.00	2.15	
Total BTEX	<0.300	0.300	09/20/2023	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	09/25/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	201	101	200	1.21	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	204	102	200	0.717	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 86.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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**Analytical Results For:**

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

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

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

**Sample ID: FS - 79 4' (H235080-15)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/20/2023	ND	2.17	109	2.00	3.50		
Toluene*	<0.050	0.050	09/20/2023	ND	2.15	108	2.00	2.55		
Ethylbenzene*	<0.050	0.050	09/20/2023	ND	2.30	115	2.00	3.54		
Total Xylenes*	<0.150	0.150	09/20/2023	ND	6.85	114	6.00	2.15		
Total BTEX	<0.300	0.300	09/20/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	912	16.0	09/25/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	201	101	200	1.21	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	204	102	200	0.717	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 89.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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**Analytical Results For:**

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

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

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

**Sample ID: FS - 80 4' (H235080-16)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/20/2023	ND	2.17	109	2.00	3.50		
Toluene*	<0.050	0.050	09/20/2023	ND	2.15	108	2.00	2.55		
Ethylbenzene*	<0.050	0.050	09/20/2023	ND	2.30	115	2.00	3.54		
Total Xylenes*	<0.150	0.150	09/20/2023	ND	6.85	114	6.00	2.15		
Total BTEx	<0.300	0.300	09/20/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1090	16.0	09/25/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	201	101	200	1.21	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	204	102	200	0.717	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 89.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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**Analytical Results For:**

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

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

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

**Sample ID: FS - 81 4' (H235080-17)**

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/20/2023	ND	2.17	109	2.00	3.50		
Toluene*	<0.050	0.050	09/20/2023	ND	2.15	108	2.00	2.55		
Ethylbenzene*	<0.050	0.050	09/20/2023	ND	2.30	115	2.00	3.54		
Total Xylenes*	<0.150	0.150	09/20/2023	ND	6.85	114	6.00	2.15		
Total BTX	<0.300	0.300	09/20/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	09/25/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	201	101	200	1.21	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	204	102	200	0.717	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 87.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

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

**Sample ID: SW - 10 0'-4' (H235080-18)**

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2023	ND	2.17	109	2.00	3.50	
Toluene*	<0.050	0.050	09/20/2023	ND	2.15	108	2.00	2.55	
Ethylbenzene*	<0.050	0.050	09/20/2023	ND	2.30	115	2.00	3.54	
Total Xylenes*	<0.150	0.150	09/20/2023	ND	6.85	114	6.00	2.15	
Total BTEx	<0.300	0.300	09/20/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/25/2023	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	201	101	200	1.21	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	204	102	200	0.717	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 87.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 09/19/2023  
 Reported: 09/25/2023  
 Project Name: SUNDANCE SDS 11-1 SWD/BAT  
 Project Number: 03B1417042  
 Project Location: OXY-EDDY COUNTY, NM

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

**Sample ID: SW - 11 0'-4' (H235080-19)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/20/2023	ND	2.17	109	2.00	3.50		
Toluene*	<0.050	0.050	09/20/2023	ND	2.15	108	2.00	2.55		
Ethylbenzene*	<0.050	0.050	09/20/2023	ND	2.30	115	2.00	3.54		
Total Xylenes*	<0.150	0.150	09/20/2023	ND	6.85	114	6.00	2.15		
Total BTEX	<0.300	0.300	09/20/2023	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	09/25/2023	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/20/2023	ND	201	101	200	1.21	
DRO >C10-C28*	<10.0	10.0	09/20/2023	ND	204	102	200	0.717	
EXT DRO >C28-C36	<10.0	10.0	09/20/2023	ND					

Surrogate: 1-Chlorooctane 90.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

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

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

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Celey D. Keene, Lab Director/Quality Manager



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

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC Project Manager: Beaux Jennings Address: 601 N Marientfield Street, Suite 400 City: Midland      State: TX      Zip: 79701 Phone #: 210-219-8858      Fax #: _____ Project #: 0381417042      Project Owner: _____ Project Name: Sundance 505 II-1 SUR/BAT Project Location: Eddy Co, NM Sample Name: Brass Samplings / Kora Shwanda FOR LAB USE ONLY				<b>BILL TO</b> P.O. #: _____ Company: Oxy USA Inc. Attn: Wade Dittrich Address: _____ City: _____ State: _____ Zip: _____ Phone #: 575-390-2828 Fax #: _____				<b>ANALYSIS REQUEST</b>			
Lab I.D.      Sample I.D.		Depth (feet)		(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :		MATRIX PRESERV SAMPLING		DATE TIME		BTEx 8021 TPH 8015M Chloride 4500	
H235D80		4'		C1				9/19/23		1042	
1 ES-65				X				1043		X	
2 ES-66								1045			
3 ES-67								1052			
4 ES-68								1053			
5 ES-69								1054			
6 ES-70								1055			
7 ES-71								1056			
8 ES-72								1057			
9 ES-73								1058			
10 ES-74				X				9/19/23		105	
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Relinquished By: _____ Date: 9/19/23 Time: 4:21 PM Received By: _____ Date: 9/19/23 Time: _____				Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No      Add'l Phone #: _____ All Results are emailed. Please provide Email address: _____				REMARKS: _____			
Relinquished By: _____ Date: _____ Time: _____				Turnaround Time: _____ Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Bacteria (only) <input type="checkbox"/> Sample Condition <input type="checkbox"/> Cool Intact <input type="checkbox"/> Observed Temp. °C _____ Corrected Temp. °C _____				Turnaround Time: _____ Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Bacteria (only) <input type="checkbox"/> Sample Condition <input type="checkbox"/> Cool Intact <input type="checkbox"/> Observed Temp. °C _____ Corrected Temp. °C _____			



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC		P.O. #:		ANALYSIS REQUEST	
Project Manager: Beaux Jennings		Company: Oxy USA Inc.			
Address: 601 N Marientfeld Street, Suite 400		Attn: Wade Dittrich			
City: Midland		Address:			
Phone #: 210-219-8858		City:			
Fax #: 210-219-8858		State:			
Project #: 038417042		Zip:			
Project Name: Sande 505 LL-1 SUD/BKT		Phone #: 575-390-2828			
Project Location: Edley Co, NM		Fax #:			
Sampler Name: Beaux Jennings / Kara Shinde		PRESERV			
FOR LAB USE ONLY		SAMPLING			
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	
			GROUNDWATER		
			WASTEWATER		
			SOIL		
			OIL		
			SLUDGE		
			OTHER :		
			ACID/BASE:		
			ICE / COOL		
			OTHER :		
			DATE	TIME	
4235080	ES-25	4'	9/19/23	11:09	X BTFX 8021
11	ES-26	4'	9/19/23	11:13	X TPH 8015M
12	ES-27	4'	9/19/23	11:14	X Chloride 4500
13	ES-28	4'	9/19/23	11:17	
14	ES-29	4'	9/19/23	11:23	
15	ES-30	4'	9/19/23	11:25	
16	ES-31	4'	9/19/23	11:25	
17	ES-32	4'	9/19/23	11:25	
18	ES-33	4'	9/19/23	11:25	
19	ES-34	4'	9/19/23	11:25	
	NE				
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Relinquished By: [Signature]		Date: 9/19/23		Received By: [Signature]	
Relinquished By: [Signature]		Date: 9/19/23		Received By: [Signature]	
Delivered By: (Circle One)		Observed Temp.: 3.3°C		Sample Condition	
Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		Corrected Temp.: °C		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>	
Sample - UPS - Bus - Other:					
CHECKED BY: [Signature]		Turnaround Time: 14:21		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>	
Thermometer ID: 446		Bacteria (only) Sample Condition		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>	
Correction Factor: 0.06		Corrected Temp.: °C		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>	
REMARKS:		Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Add'l Phone #:	
		All Results are emailed. Please provide Email address:			



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	nAPP2215134499
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party: Oxy USA Inc.	OGRID: 16696
Contact Name: Tyson Pierce	Contact Telephone: 575-390-3610
Contact email: Tyson_Pierce@oxy.com	Incident # nAPP2215134499
Contact mailing address: PO Box 4294, Houston, TX 77210	

### Location of Release Source

Latitude 32.240587

Longitude -103.726100

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Sundance-SDS 11-1 SWD/BAT	Site Type: Oil/Produced Water Gathering Line
Date Release Discovered: 5/1/2022	API# (if applicable)

Unit Letter	Section	Township	Range	County
P	1	24S	31E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls): 35	Volume Recovered (bbls): 30
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls): 340	Volume Recovered (bbls): 320
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input 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: Victaulic failure on the Calmon 5 SWD line along with a pinhole release on the steel main line.

State of New Mexico  
Oil Conservation Division

Incident ID	nAPP2215134499
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? Release is greater than 25 barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, by Wade Dittrich of Oxy via email to <a href="mailto:OCD.enviro@state.nm.us">OCD.enviro@state.nm.us</a> and <a href="mailto:BLM_NM_CFO_Spill@blm.gov">BLM_NM_CFO_Spill@blm.gov</a> on 5/1/2022 at 1430.	

**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>Tyson Pierce</u>	Title: <u>Environmental Specialist</u>
Signature: 	Date: <u>4/18/23</u>
email: <u>tyson_pierce@oxy.com</u>	Telephone: <u>575-390-3610</u>
<b><u>OCD Only</u></b>	
Received by: _____	Date: _____

Incident ID	nAPP2215134499
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)
Did this release impact groundwater or surface water?	<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 <b>not</b> on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input 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	nAPP2215134499
District RP	
Facility ID	
Application ID	

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

Printed Name: Tyson Pierce

Title: Environmental Specialist

Signature: 

Date: 4/18/23

email: tyson\_pierce@oxy.com

Telephone: 575-390-3610

**OCD Only**

Received by: \_\_\_\_\_

Date: \_\_\_\_\_

Released to Imaging: 12/15/2023 12:35:03 PM

State of New Mexico  
Oil Conservation Division

Incident ID	nAPP2215134499
District RP	
Facility ID	
Application ID	

## Closure

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

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

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

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

Printed Name: Tyson Pierce

Title: Environmental Specialist

Signature: \_\_\_\_\_

Date: 4/18/23

email: tyson\_pierce@oxy.com

Telephone: 575-390-3610

**OCD Only**

Received by: \_\_\_\_\_

Date: \_\_\_\_\_

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

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Received by OCD: 12/8/2023 12:35:03 PM

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**Oil Conservation Division**  
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**Santa Fe, NM 87505**

QUESTIONS

Action 292751

**QUESTIONS**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:
	16696
	Action Number:
	292751
Action Type:	
[C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2215134499
Incident Name	NAPP2215134499 SUNDANCE-SDS 11-1 SWD/BAT @ 0
Incident Type	Release Other
Incident Status	Remediation Closure Report Received

**Location of Release Source**

Please answer all the questions in this group.

Site Name	SUNDANCE-SDS 11-1 SWD/BAT
Date Release Discovered	05/01/2022
Surface Owner	Federal

**Incident Details**

Please answer all the questions in this group.

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

**Nature and Volume of Release**

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.

Crude Oil Released (bbls) Details	Cause: Corrosion   Pipeline (Any)   Crude Oil   Released: 35 BBL   Recovered: 30 BBL   Lost: 5 BBL.
Produced Water Released (bbls) Details	Cause: Corrosion   Pipeline (Any)   Produced Water   Released: 340 BBL   Recovered: 320 BBL   Lost: 20 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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QUESTIONS, Page 2

Action 292751

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:	16696
	Action Number:	292751
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

**Initial Response**

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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

I hereby agree and sign off to the above statement	Name: Wade Dittrich Title: Environmental Coordinator Email: wade_dittrich@oxy.com Date: 12/08/2023
--	---

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QUESTIONS, Page 3

Action 292751

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:
	16696
	Action Number:
	292751
Action Type:	
[C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

**QUESTIONS****Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	Attached Document
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	None
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

**Remediation Plan**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

**Soil Contamination Sampling:** (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride	(EPA 300.0 or SM4500 Cl B)	8000
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	4782
GRO+DRO	(EPA SW-846 Method 8015M)	3947
BTEX	(EPA SW-846 Method 8021B or 8260B)	1.8
Benzene	(EPA SW-846 Method 8021B or 8260B)	0

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	02/13/2023
On what date will (or did) the final sampling or liner inspection occur	09/19/2023
On what date will (or was) the remediation complete(d)	09/19/2023
What is the estimated surface area (in square feet) that will be reclaimed	37500
What is the estimated volume (in cubic yards) that will be reclaimed	5555
What is the estimated surface area (in square feet) that will be remediated	37500
What is the estimated volume (in cubic yards) that will be remediated	5555

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 4

Action 292751

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:	16696
	Action Number:	292751
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS****Remediation Plan (continued)**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

**This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:**

(Select all answers below that apply.)	
(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	LEA LAND LANDFILL [fEEM0112342028]
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

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

I hereby agree and sign off to the above statement	Name: Wade Dittrich Title: Environmental Coordinator Email: wade_dittrich@oxy.com Date: 12/08/2023
--	---

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 5  
  
Action 292751

**QUESTIONS (continued)**

Operator:  OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:  16696
	Action Number:  292751
	Action Type:  [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

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

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QUESTIONS, Page 6

Action 292751

**QUESTIONS (continued)**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:	16696
	Action Number:	292751
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Sampling Event Information</b>	
Last sampling notification (C-141N) recorded	290901
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	09/19/2023
What was the (estimated) number of samples that were to be gathered	92
What was the sampling surface area in square feet	37500

**Remediation Closure Request**

*Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.*

Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	37500
What was the total volume (cubic yards) remediated	5555
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	37500
What was the total volume (in cubic yards) reclaimed	5555
Summarize any additional remediation activities not included by answers (above)	None

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

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

I hereby agree and sign off to the above statement	Name: Wade Dittrich Title: Environmental Coordinator Email: wade_dittrich@oxy.com Date: 12/08/2023
--	---

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QUESTIONS, Page 7  
  
Action 292751

QUESTIONS (continued)

Operator:  OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:  16696
	Action Number:  292751
	Action Type:  [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

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

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CONDITIONS

Action 292751

**CONDITIONS**

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID:
	16696
	Action Number:
	292751
Action Type:	
[C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

**CONDITIONS**

Created By	Condition	Condition Date
rhamlet	We have received your Remediation Closure Report for Incident #NAPP2215134499 SUNDANCE-SDS 11-1 SWD/BAT, thank you. This Remediation Closure Report is approved. A report for reclamation and revegetation including pictures of the contoured backfilled excavation surface and a thorough discussion on reseeding mixture, vegetation ratio, timelines, etc., will need to be submitted and approved prior to this incident receiving the final status of "Restoration Complete".	12/15/2023