



August 1, 2025

New Mexico Oil Conservation Division

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

**Re: Reclamation Report
Sundance SDS 11-1 SWD/BAT
Incident Number nAPP2215134499
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Oxy USA Inc. (Oxy), has prepared the following *Reclamation Report* for the the Sundance SDS 11-1 SWD/BAT (Site). This *Reclamation Report* documents the Site history, reclamation activities completed to date, and proposes a vegetation monitoring plan.

BACKGROUND

The Site is located in Unit P, Section 01, Township 24 South, Range 31 East, in Eddy County, New Mexico (32.240480°, -103.725720°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On May 1, 2022, a pinhole release on the steel main line resulted in the release of 35 barrels (bbls) of crude oil and 340 bbls of produced water into the pasture. A vacuum truck was immediately dispatched to the Site to recover the free-standing fluids; approximately 30 bbls of crude oil and 320 bbls of produced water were recovered. Oxy reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form (Form C-141) on May 31, 2022. The release was assigned Incident Number nAPP2215134499.

Delineation and excavation of impacted soil was completed at the Site between May 2022 and September 2023. Based on the delineation and excavation soil sample analytical results, a *Closure Request* was submitted to the NMOCD on December 8, 2023. The NMOCD approved the *Closure Request* on December 15, 2023. Additional details regarding the release, Site Characterization, delineation and excavation activities, and soil sample analytical results can be referenced in the approved *Closure Request*, included as an attachment to this report. Remediation of the release was completed in accordance with Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC).

RECLAMATION ACTIVITIES

The excavation area measured approximately 12,757 square feet. A total of approximately 1,890 cubic yards of impacted soil were removed during the excavation activities. Upon completion of excavation activities and receipt of final laboratory analytical results, the excavation area was backfilled with locally

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procured topsoil and the disturbed area was restored to its original condition. The release extent, excavation extent, and reclamation area are shown on the attached Figure 1. Photographic documentation of the backfilled excavation was completed, and a photographic log is included as Appendix A.

One representative 5-point composite sample (BS01) was collected from the topsoil backfill material on June 16, 2025. The backfill soil sample was transported under strict chain-of-custody procedures to Cardinal Laboratories in Hobbs, New Mexico, for analysis of the following constituents of concern (COCs): total petroleum hydrocarbons (TPH)—gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following Standard Method 4500.

Laboratory analytical results for the backfill soil sample confirmed compliance with NMOCD requirements for the reclaimed area to contain non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 milligrams per kilogram (mg/kg) and TPH concentrations less than 100 mg/kg. The laboratory analytical results are summarized in the attached Table 1 and the complete laboratory analytical report is included as Appendix B.

The reclaimed pasture areas were seeded on July 3, 2025, with the below BLM seed mixture #1 for loamy sites. The seed was applied with a broadcast seed spreader at double the below rate in pounds of pure live seed (PLS) per acre to account for the application method.

Species/Cultivar	PLS/Acre
Plains lovegrass (<i>Eragrostis intermedia</i>)	0.5
Sand dropseed (<i>Sporobolus cryptandrus</i>)	1.0
Sideoats grama (<i>Bouteloua curtipendula</i>)	5.0
Plains bristlegrass (<i>Setaria macrostachya</i>)	2.0

Following broadcast seeding, the area was chained to cover the seed. Photographs of the backfilled excavation and seeding of the reclaimed area are provided in Appendix B.

VEGETATION MONITORING

The Site will be monitored for vegetation growth to ensure that reclamation activities were successful. Focus for this phase will be to prevent erosion and Site degradation, and to monitor for and treat invasive and noxious weed species.

- Annual inspections will take place at the location to monitor for revegetation progress.
- If necessary, an additional application of the BLM seed mix will be applied.
- Noxious and invasive weeds will be identified and treated by licensed contracted herbicide applicator or mechanically removed.

A *Revegetation Report* will be submitted to the NMOCD and BLM once vegetation growth in the reclaimed pasture area has uniform vegetative cover that reflects a life-form ratio of plus or minus 50 percent (%) of pre-disturbance levels and a total percent plant cover of at least 70% of pre-disturbance levels, excluding noxious weeds, per NMAC 19.15.29.13 D.(3).

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RECLAMATION APPROVAL REQUEST

Based on the reclamation activities completed to date and proposed vegetation monitoring plan described above, Oxy respectfully requests approval of this *Reclamation Report* and a status update to *Reclamation Report Approved, Pending submission of Re-Vegetation Report* for Incident nAPP2215134499.

If you have any questions or comments, please contact Ms. Aimee Cole at (720) 384-7365 or acole@ensolum.com.

Sincerely,
Ensolum, LLC



Tabitha Guadian
Staff Geologist



Aimee Cole
Senior Managing Scientist

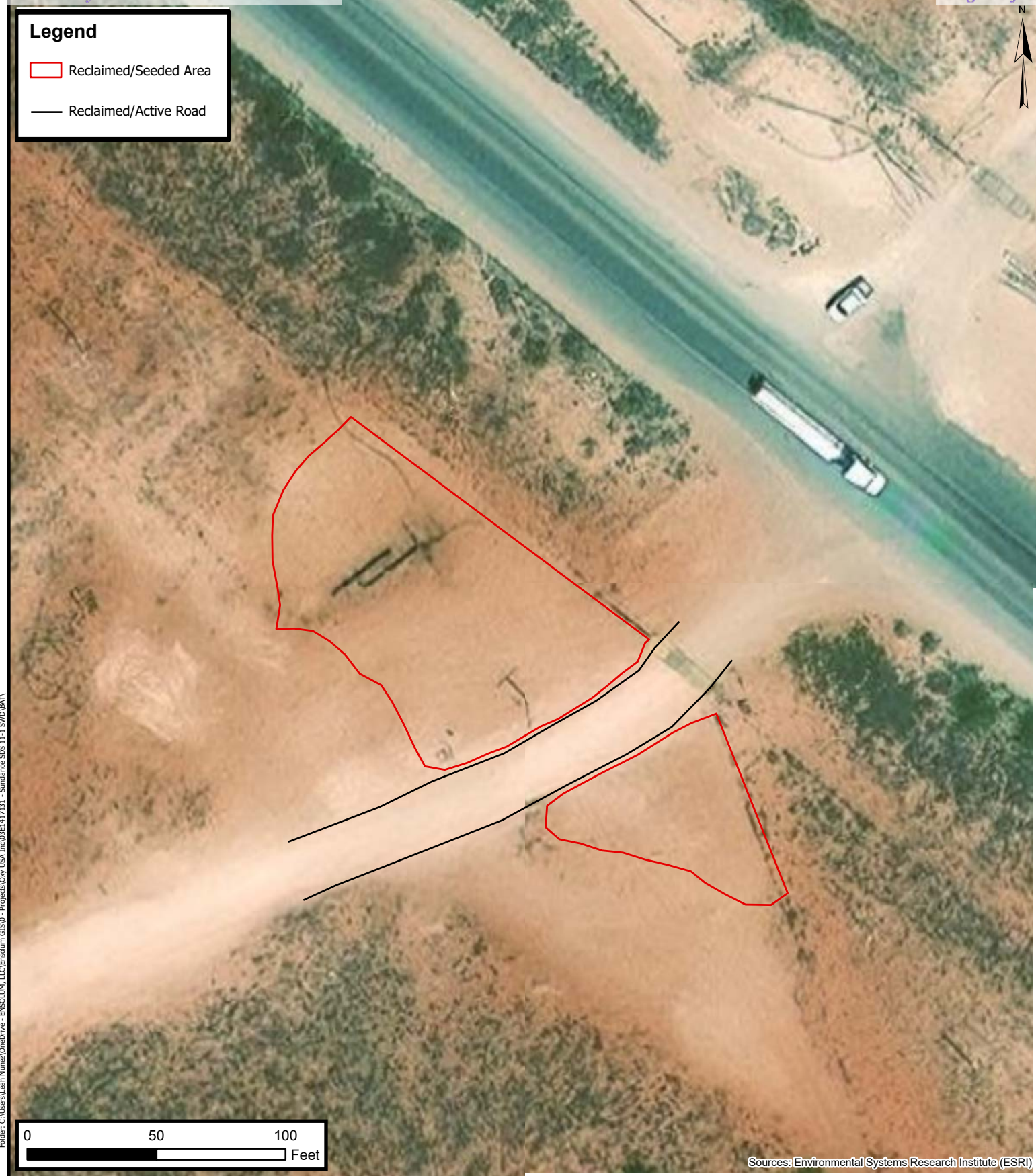
cc: Jessica Kent, Oxy
Bureau of Land Management

Appendices:

Figure 1	Reclamation Area
Table 1	Backfill Soil Sample Analytical Results
Appendix A	Photographic Log
Appendix B	Laboratory Analytical Report & Chain of Custody Documentation
Appendix C	December 8, 2023, <i>Closure Request</i>



Figures



Reclamation Area

Oxy USA Inc.
Sundance SDS 11-1 SWD/BAT
Incident Number: nAPP2215134499
32.24048, -103.72572

FIGURE

1



Table



TABLE 1
BACKFILL SOIL SAMPLE ANALYTICAL RESULTS
SUNDANCE SDS 11-1 SWD/BAT
Oxy USA Inc.
Eddy County, New Mexico

Sample Designation	Date	Depth (feet bgs)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total TPH (GRO+DRO+MRO) (mg/kg)	Chloride (mg/kg)
NMOCD Table I Reclamation Requirement (NMAC 19.15.29)			NE	NE	NE	100	600
Composite Backfill Soil Sample							
BS01	06/16/2025	Surface	<10.0	<10.0	<10.0	<10.0	16.0

bgs: below ground surface

mg/kg: milligrams per kilogram

NE: Not Established

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

MRO: Motor Oil/Lube Oil Range Organics

TPH: Total Petroleum Hydrocarbon



APPENDIX A

Photographic Log

**Photographic Log**

Oxy USA, Inc.

Sundance SDS 11-1 SWD/BAT

Incident Number nAPP2215134499



Photograph: 1 Date: 7/3/2025
Description: Reseeding activities



Photograph: 2 Date: 7/3/2025
Description: Reseeding activities



Photograph: 3 Date: 7/3/2025
Description: Reseeding activities



Photograph: 4 Date: 7/3/2025
Description: Reseeding activities



APPENDIX B

Laboratory Analytical Reports & Chain-of-Custody Documentation



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

June 23, 2025

HADLIE GREEN

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: SUNDANCE SDS 11-1 SWD/BAT

Enclosed are the results of analyses for samples received by the laboratory on 06/17/25 13:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive 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
HADLIE GREEN
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received: 06/17/2025
Reported: 06/23/2025
Project Name: SUNDANCE SDS 11-1 SWD/BAT
Project Number: 03E1417131
Project Location: 32.24048-103.72572

Sampling Date: 06/16/2025
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Shalyn Rodriguez

Sample ID: BS01 0' (H253603-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/18/2025	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	06/18/2025	ND	194	96.9	200	1.31	
DRO >C10-C28*	<10.0	10.0	06/18/2025	ND	182	91.0	200	0.0429	
EXT DRO >C28-C36	<10.0	10.0	06/18/2025	ND					
Surrogate: 1-Chlorooctane	93.7 %	44.4-145							
Surrogate: 1-Chlorooctadecane	93.8 %	40.6-153							

Cardinal Laboratories

*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager

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Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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

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

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



APPENDIX C

December 8, 2023 *Closure Request*



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

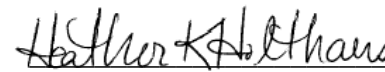

Heather Holthaus
Senior Project Manager

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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.

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- 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

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

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.

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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.

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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.

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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.

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- 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.

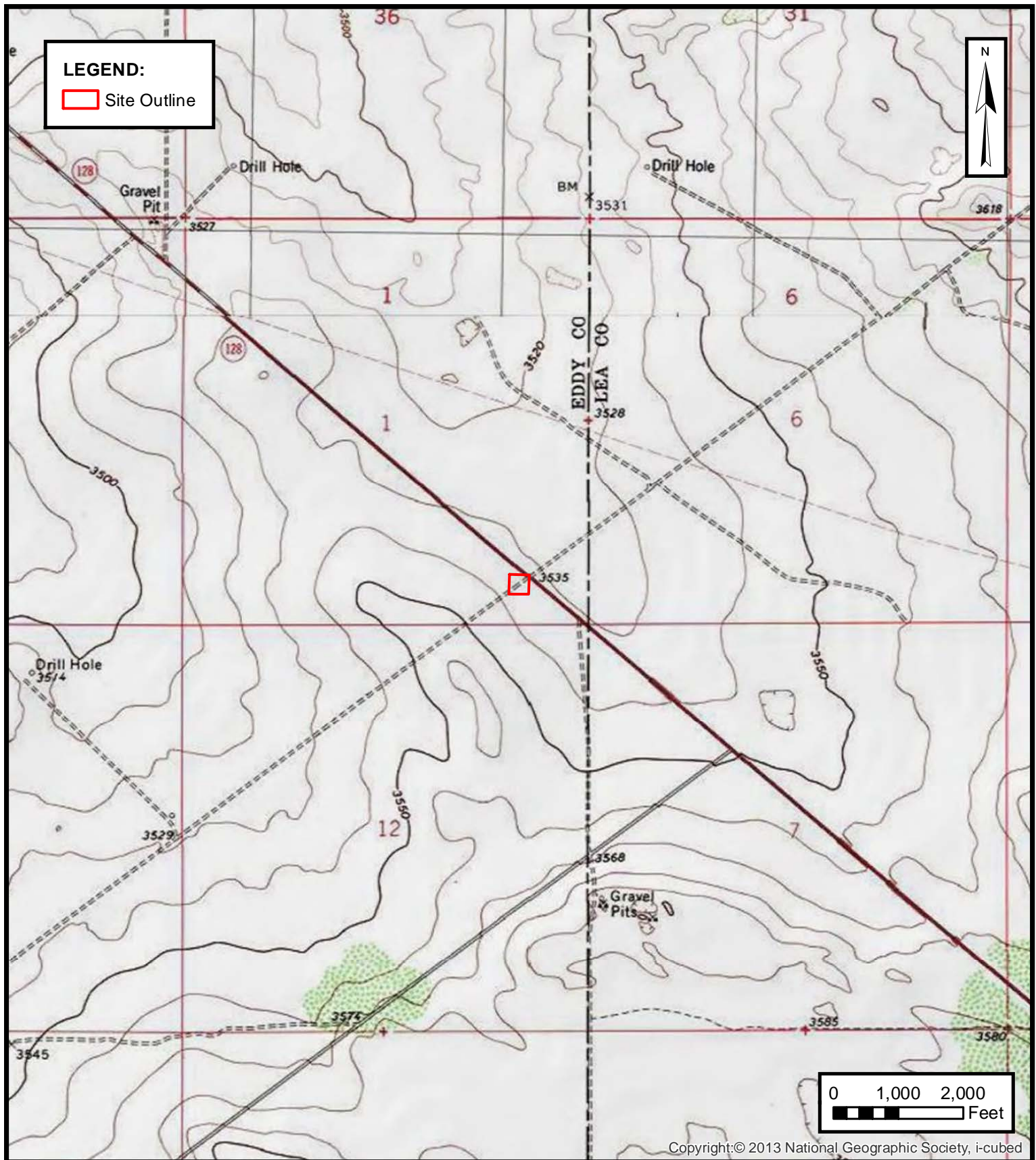
9.3 Reliance

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

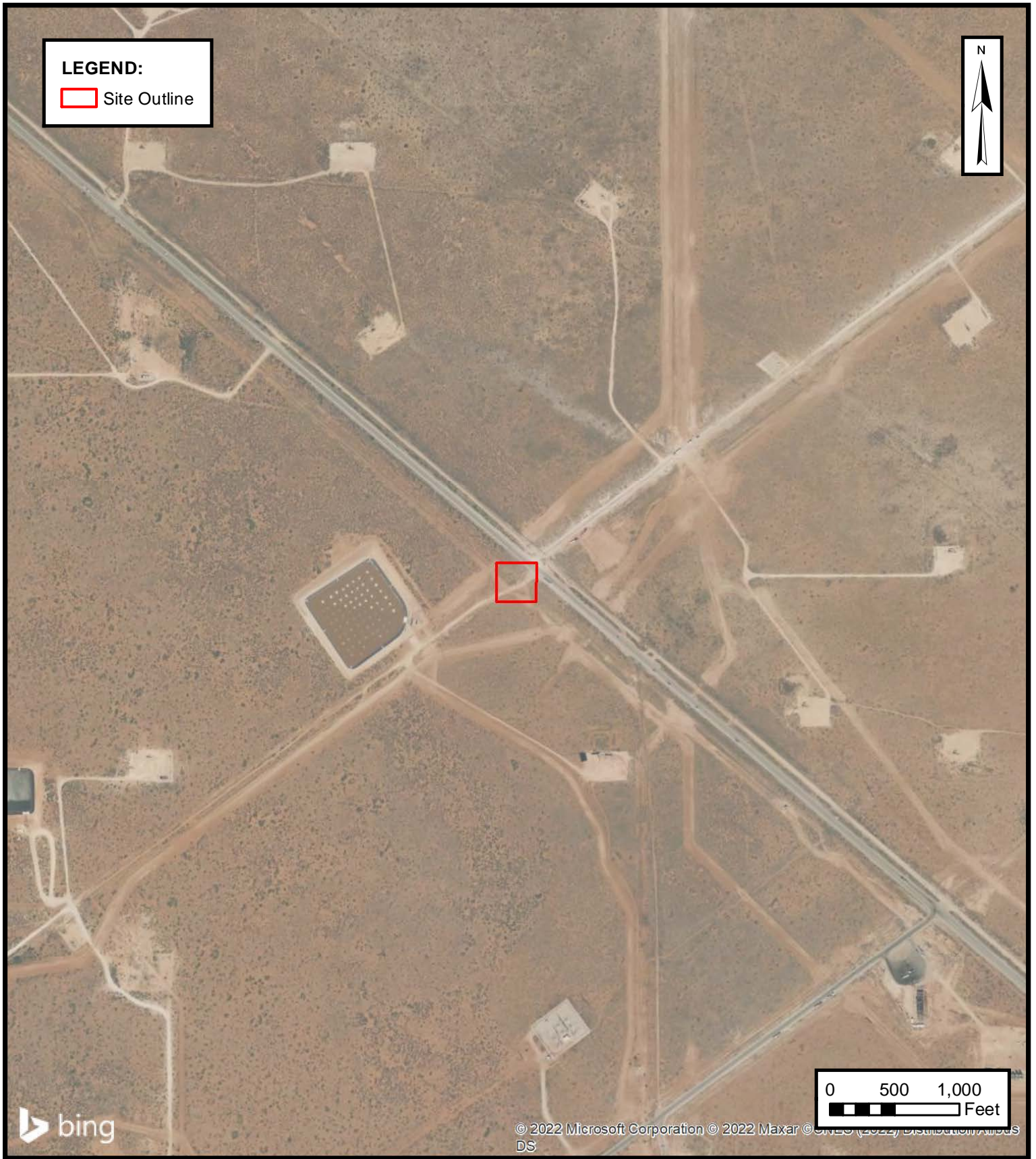


ENSOLUM
Environmental & Hydrogeologic Consultants

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

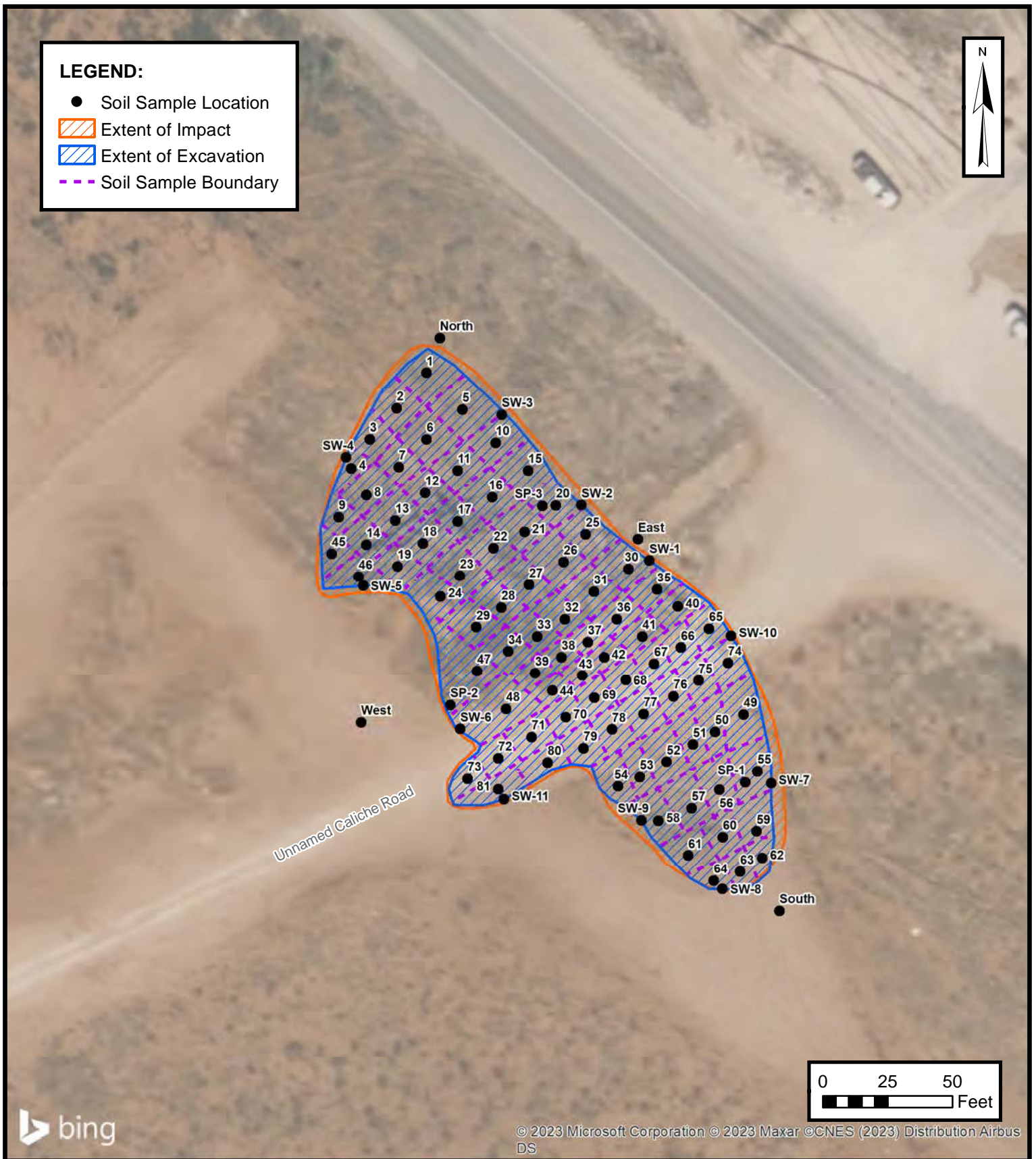


SITE VICINITY MAP

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

PROJECT NUMBER: 03B1417042

FIGURE
2



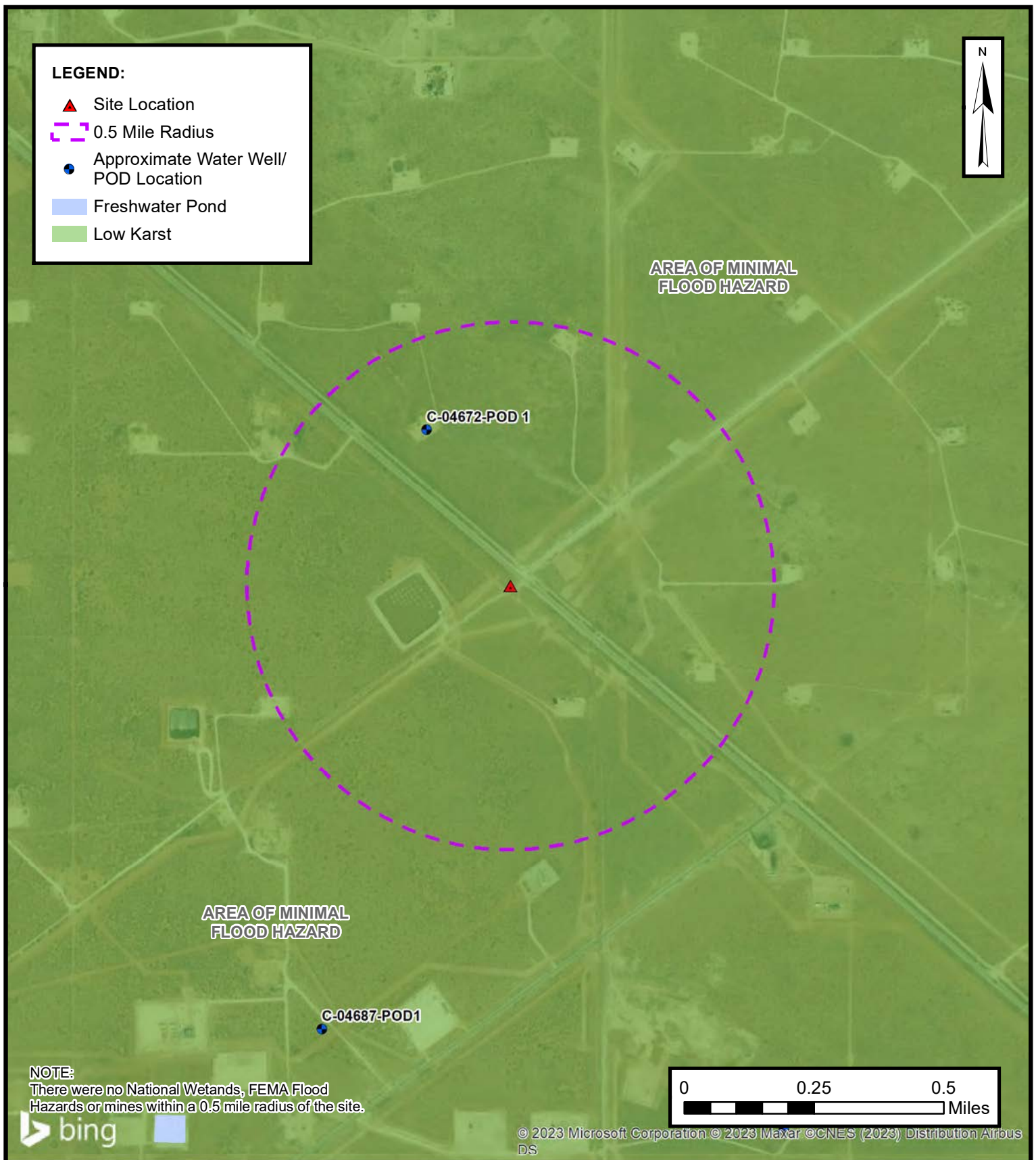
SITE MAP

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

PROJECT NUMBER: 03B1417042

FIGURE

3

**CLOSURE CRITERIA MAP**

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

PROJECT NUMBER: 03B1417042

FIGURE**4**

ENSOLUM
Environmental, Engineering and
Hydrogeologic Consultants



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
[http:// www.emnrd.nm.gov](http://www.emnrd.nm.gov)



From: Beaux Jennings <bjennings@ensolum.com>
Sent: Thursday, February 16, 2023 9:38 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Dittrich, John W <Wade_Dittrich@oxy.com>; Pierce, Tyson (Legacy Safety & Consulting LLC) <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

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
<http://www.emnrd.nm.gov/oce>



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

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 2nd. 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

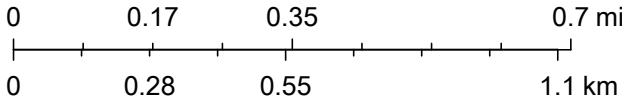
- Subsurface Estate
- Both Estates

SiteBoundaries

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)	
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
NA	C 04672 POD 1	2	1	4	01	24S	31E	619762	3568286 
x									
Driller License: 1184		Driller Company:				WEST TEXAS WATER WELL SERVICE			
Driller Name:		RUSSELL SOUTHERLAND							
Drill Start Date: 09/01/2022		Drill Finish Date:				09/01/2022		Plug Date:	
Log File Date: 09/26/2022		PCW Rcv Date:				Source:			
Pump Type:		Pipe Discharge Size:				Estimated Yield:			
Casing Size:		Depth Well:				110 feet		Depth Water:	
x									

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/	Acres	Diversion	Consumptive
			1	2		To			
get images	734614	EXPL 2022-09-22	PMT	APR	C 04672 POD 1	T	0	0	

Current Points of Diversion

POD Number	Well Tag	Source	Q				(NAD83 UTM in meters)		Other Location Desc
			64	Q16	Q4	Sec	Tws	Rng	
C 04672 POD 1	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

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-

Drill Cuttings-

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
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 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



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

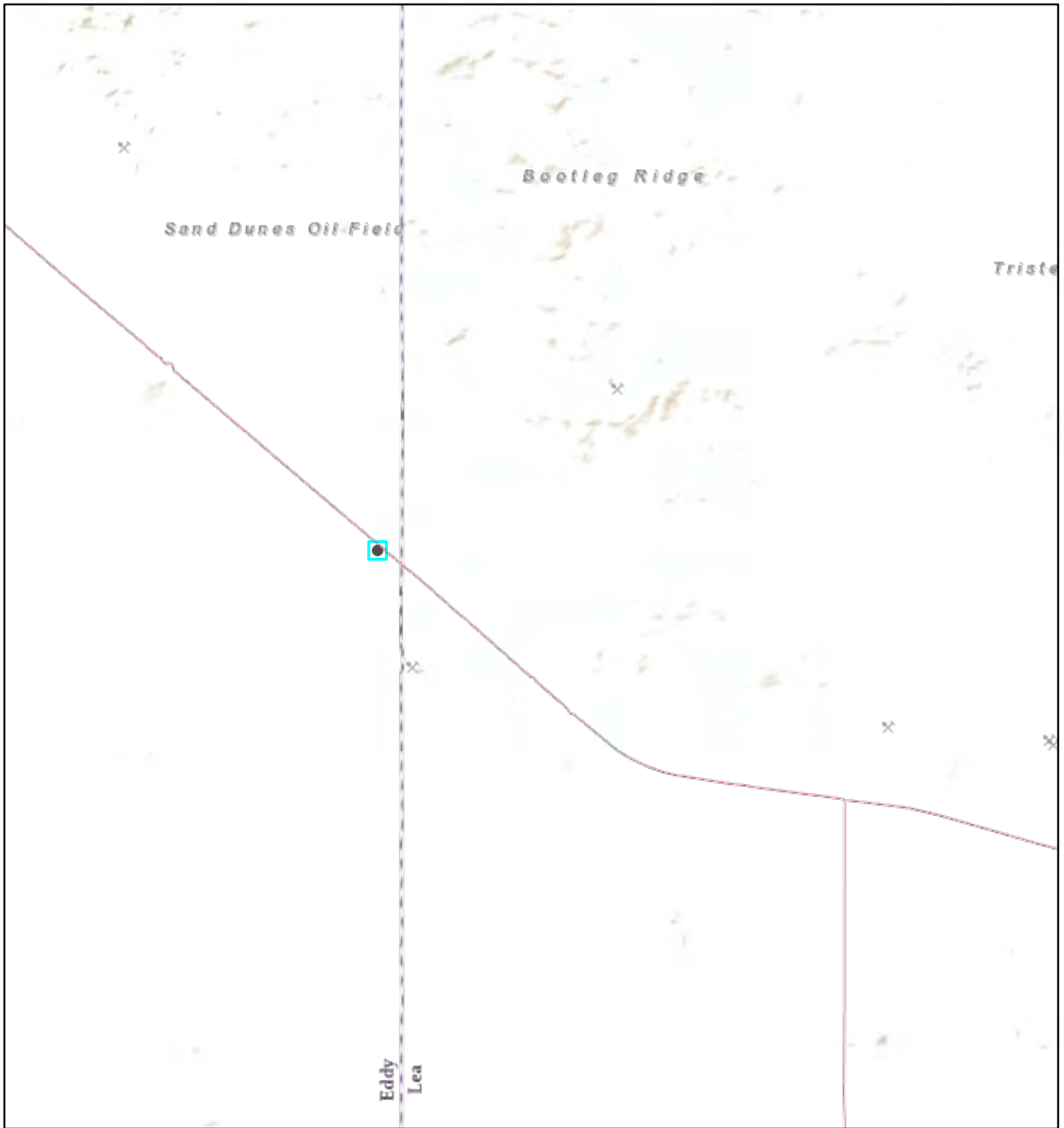
- High
- Low
- Medium
- Sundance
- Sundance SDS 11-1 SWD/BAT

Sundance SDS 11-1 SWD/BAT



500 ft

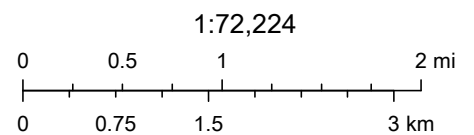
Active Mines in New Mexico



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 Report¹

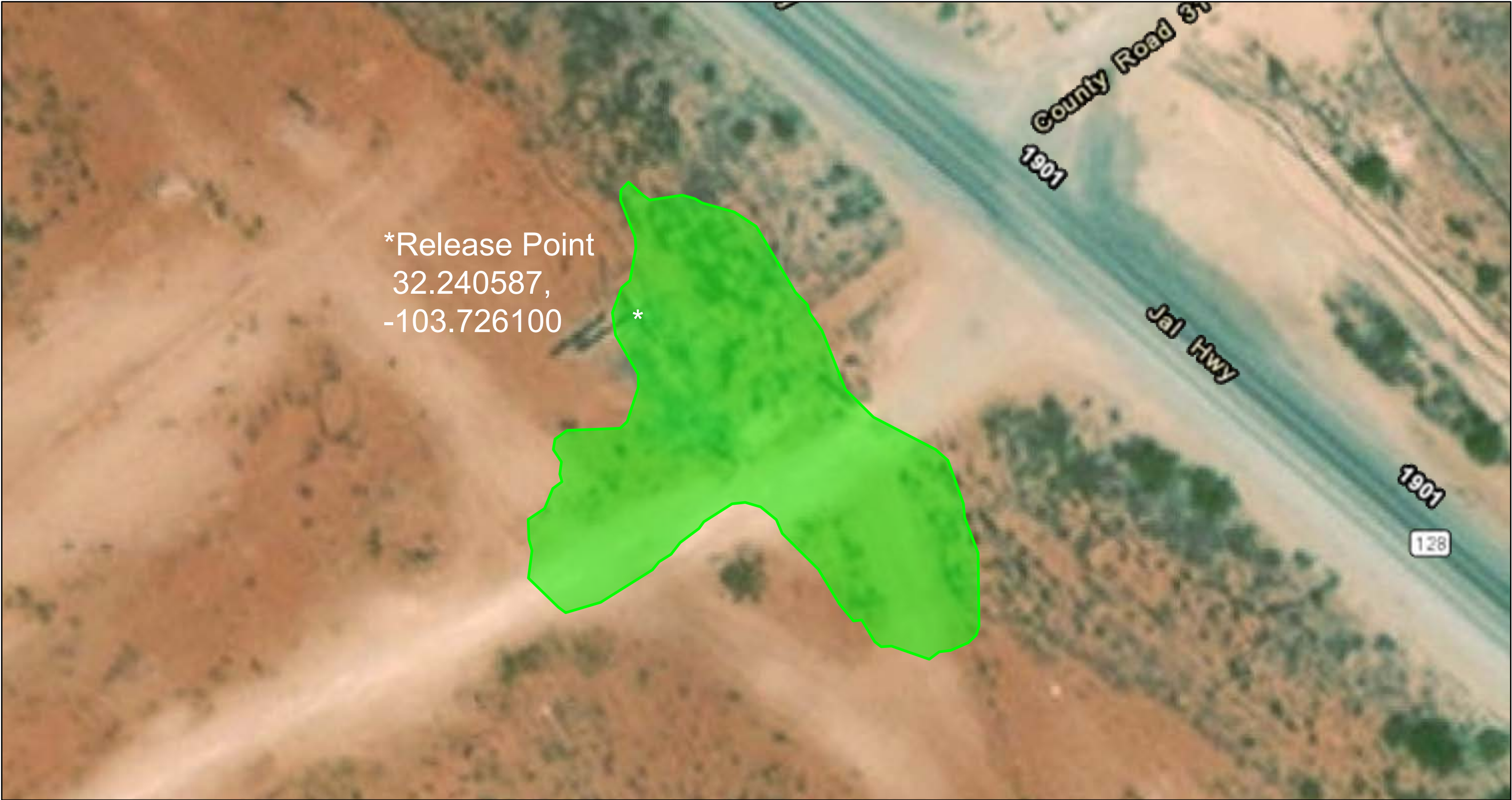
ATTACHMENT 2

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"/>
Type and Relevant Details of Event					
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		

¹ 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

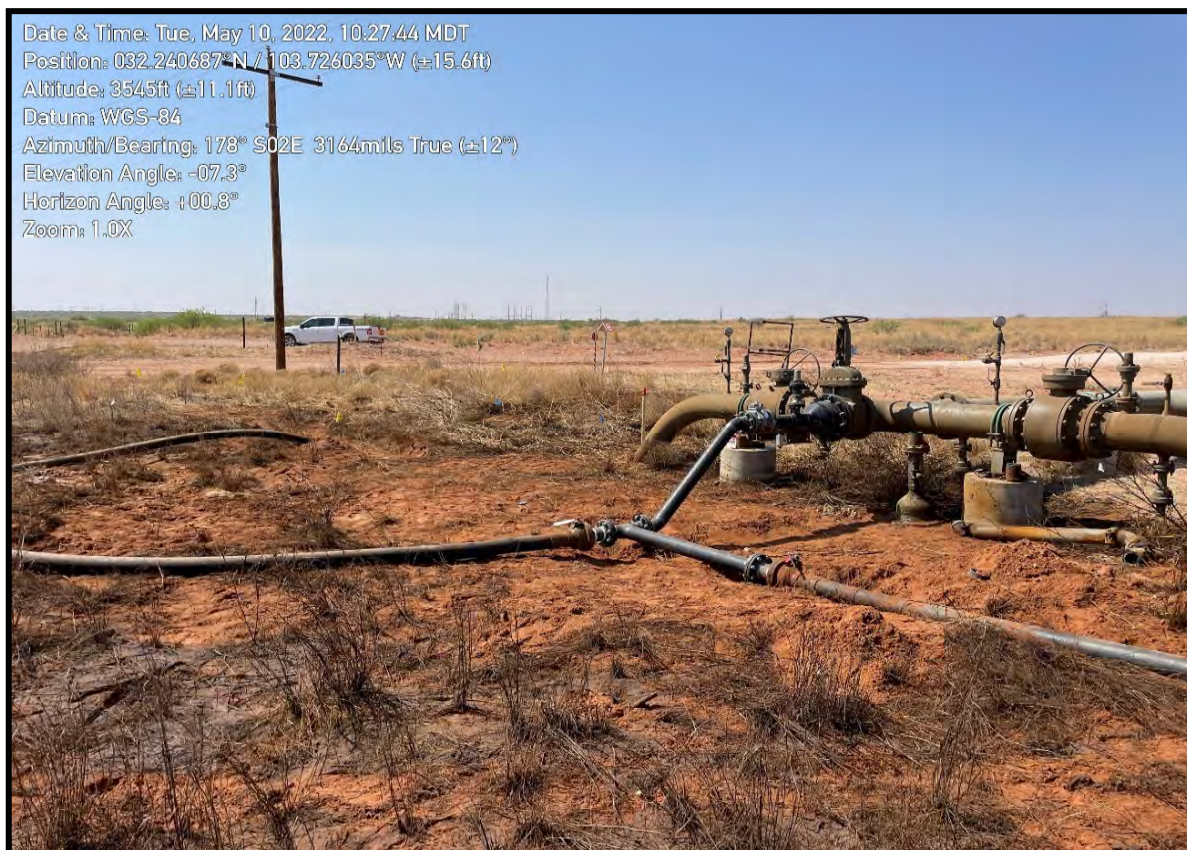
- AREA_FF00FF001
- OSE District Boundary
- SiteBoundaries

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 (± 15.5 ft)
Altitude: 3547ft (± 11.1 ft)
Datum: WGS-84
Azimuth/Bearing: 336° N24W 5973mils True ($\pm 12^\circ$)
Elevation Angle: -07.2°
Horizon Angle: -01.1°
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 (± 15.6 ft)
Altitude: 3545ft (± 11.0 ft)
Datum: WGS-84
Azimuth/Bearing: 049° N49E 0871mils True ($\pm 13^\circ$)
Elevation Angle: -01.0°
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.

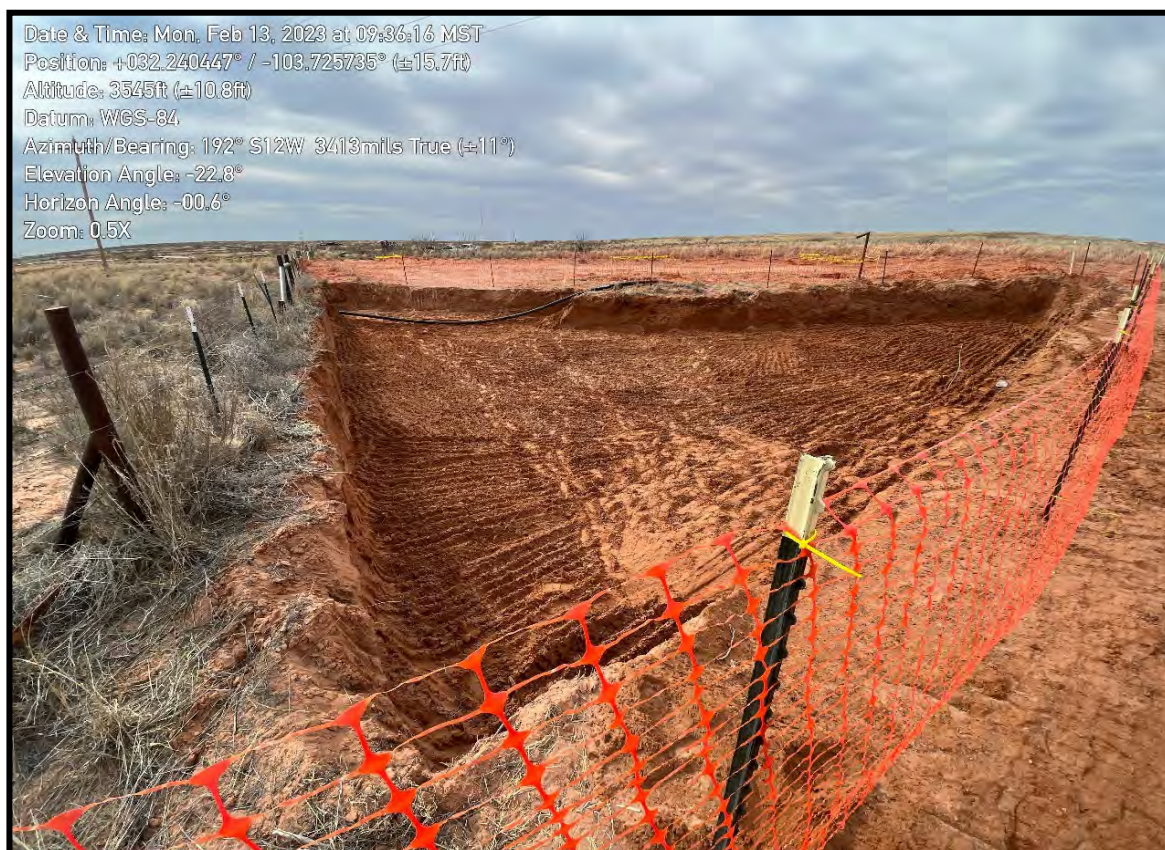
Date & Time: Tue, May 10, 2022, 10:29:31 MDT
Position: 032.240403°N / 103.725781°W (±15.5ft)
Altitude: 3548ft (±11.1ft)
Datum: WGS-84
Azimuth/Bearing: 038° N38E 0676mils True (±12°)
Elevation Angle: -04.0°
Horizon Angle: -00.4°
Zoom: 1.0X



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 Soil Sample Analytical Results											
FS-1	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	64.0
FS-2	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-3	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-4	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-5	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	80.0
FS-6	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	80.0
FS-7	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	48.0
FS-8	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-9	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-10	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	128
FS-11	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	313	109	422	112
FS-12	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	96.0
FS-13	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-14	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	48.0
FS-15	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	44.9	<10.0	44.9	176
FS-16	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	124	23.4	147	176
FS-17	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	112
FS-18	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-19	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-20	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	260	50.7	311	288
FS-21	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	2,630	477	3,107	1,310
	3/2/2023	4	NS					139	48.9	188	NS
FS-22	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	440	70.6	511	1,090
FS-23	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	48.0
FS-24	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-25	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	62.0	10.4	72.4	64.0
FS-26	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	1,080	227	1,307	96.0
	3/2/2023	4	NS					<10.0	<10.0	<10.0	NS
FS-27	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	753	157	910	80.0
FS-28	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	52.8	<10.0	52.8	208
FS-29	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	224
FS-30	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	181	42.8	224	80.0
FS-31	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	113	34.7	148	80.0
FS-32	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	208	58.5	267	64.0
FS-33	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	68.0	14.1	82.1	176
FS-34	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	27.0	<10.0	27.0	272
FS-35	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	496
FS-36	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	1,152	231	1,383	672
	3/2/2023	4	NS					334	83.7	418	NS
FS-37	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	70.6	24.0	94.6	208
FS-38	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	30.5	<10.0	30.5	464
FS-39	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	102	26.5	129	1,150

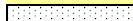
TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 Sundance SDS 11-1 SWD BAT
 Oxy USA Inc.
 Eddy County, New Mexico
 Ensolum Project No. 03B1417042

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
FS-40	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	48.0
FS-41	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	17.2	<10.0	17.2	208
FS-42	2/13/2023	4	<0.050	0.136	<0.050	<0.150	<0.300	12.6	<10.0	12.6	144
FS-43	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	49.9	12.6	62.5	336
FS-44	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	116	29.5	146	320
FS-45	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	48.0
FS-46	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	48.0
FS-47	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	55.9	11.6	67.5	656
FS-48	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	42.0	11.4	53.4	336
FS-49	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	16.0	<10.0	16.0	128
FS-50	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	57.9	10.9	68.8	208
FS-51	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	460	80.7	541	608
FS-52	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	248	46.9	295	128
FS-53	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	19.0	<10.0	19.0	32.0
FS-54	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	272
FS-55	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	14.7	<10.0	14.7	32.0
FS-56	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	454	141	595	48.0
FS-57	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	378	92.1	470	288
FS-58	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	190	49.9	240	160
FS-59	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	112	32.1	144	48.0
FS-60	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	418	86.5	505	112
FS-61	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	13.8	15.6	29.4	1,180
FS-62	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	17.9	<10.0	17.9	112
FS-63	2/13/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	96.0
FS-64	2/13/2023	4	<0.050	<0.050	<0.050	0.455	0.455	2,015	250	2,265	32.0
	3/2/2023	4	NS					217	43.0	260	NS
FS-65	9/19/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	35.2	<10.0	35.2	80.0
FS-66	9/19/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	64.0
FS-67	9/19/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	832
FS-68	9/19/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	800
FS-69	9/19/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	816
FS-70	9/19/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	1,650
FS-71	9/19/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	320
FS-72	9/19/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	144
FS-73	9/19/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	1,090
FS-74	9/19/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	624
FS-75	9/19/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	208
FS-76	9/19/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	320
FS-77	9/19/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.0
FS-78	9/19/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	48.0
FS-79	9/19/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	912
FS-80	9/19/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	1,090
FS-81	9/19/2023	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	96.0

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.

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: 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



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 - 2 4' (H230667-02)

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) 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, 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	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)

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) 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, 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	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)

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) 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)

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) 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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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 - 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, 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	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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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)

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) 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)

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) 157 % 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	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)

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) 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)

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) 158 % 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 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, 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*	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)

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, 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*	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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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 - 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



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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 - 18 4' (H230667-18)

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) 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



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 - 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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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 - 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, 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 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)

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, 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)

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, 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	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)

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	GC-NC	
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) 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, 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	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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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 - 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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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 - 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)

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) 151 % 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	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, 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	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)

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) 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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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 - 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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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 - 37 4' (H230667-37)

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	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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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 - 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, SM4500Cl-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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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 - 39 4' (H230667-39)

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) 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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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 - 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, 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	02/15/2023	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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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 - 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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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 - 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	
DRO >C10-C28*	12.6	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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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 - 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, 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 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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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 - 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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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 - 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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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 - 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, 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*	<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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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 - 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, 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	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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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 - 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, 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*	<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, 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	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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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 - 58 4' (H230667-58)

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) 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	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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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 - 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, 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	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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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 - 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



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 - 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, SM4500CI-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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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, 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	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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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, 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	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, 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	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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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 - 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



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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 - 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)

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	2.05	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 BTX	<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, 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	02/17/2023	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, 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	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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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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Pgs 1 of 8

Company Name: Ensolum, LLC		P.O. #:		ANALYSIS REQUEST	
Project Manager: Beaux Jennings		Company: Oxy USA, Inc.			
Address: 601 N. Marientfeld St. STE 400		Attn: Wade Dittich			
City: Midland		Address:			
Phone #: 210-219-8858		City:			
Project #: 63B1417042		State: TX			
Project Name: Sundance SDS 11-1 SWD /BAT		Zip:			
Project Location: Eddy County, NM		Phone #: 575-390-2828			
Sampler Name: KS, SAM		Fax #:			

Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.		SAMPLING		DATE	TIME	BTEX	TPH	Chlorides	NFE	Sum/15
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :								
103010107	FS-1	4'		1	X									2-15-23	1145	X	X				
	FS-2	4'		1	X									2-15-23	1146	X	X				
	FS-3	4'		1	X									2-13-23	1147	X	X				
	FS-4	4'		1	X									2-13-23	1148	X	X				
	FS-5	4'		1	X									2-13-23	1149	X	X				
	FS-6	4'		1	X									2-13-23	1150	X	X				
	FS-7	4'		1	X									2-13-23	1151	X	X				
	FS-8	4'		1	X									2-13-23	1152	X	X				
	FS-9	4'		1	X									2-13-23	1153	X	X				
	FS-10	4'		1	X									2-13-23	1154	X	X				

Relinquished By:	Date: 2/15/23	Received By:	Date: 2/15/23
Time: 1518			

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp.: 24.1°C Corrected Temp.: 1.8°C	Sample Condition <input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY:	Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Thermometer ID #113 Corrosion Factor: -0.6°C	Bacteria (only) <input type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No Sample Condition Observed Temp.: °C Corrected Temp.: °C
--	--	---	-------------	--	--

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Pg 2 of 8

Company Name: Ensolum, LLC										BILL TO									
Project Manager: Beaux Jennings										P.O. #:									
Address: 601 N. Marland St. STE 400										Company: Oxy USA, Inc.									
City: Midland										Attn: Wade Dittich									
State: TX Zip: 79701										Address:									
Phone #: 210-219-8858 Fax #:										City:									
Project #: 03B1419042 Project Owner:										State: Zip:									
Project Location: Sundance SDS 11-1 SWD / BHT										Phone #: 575-390-2828									
Sample Name: KS S4m										Fax #:									
<small>FOR LAB USE ONLY</small>										ANALYSIS REQUEST									
Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV	SAMPLING	DATE	TIME	BTEX	TPH	Chlorides	NEE	Sum/KS
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :									
11	FS-11	4	C	1	X								2/13/23	1155	X	X	X		
13	FS-12	4	C	1	X								2/13/23	1156	X	X	X		
13	FS-13	4	C	1	X								2/13/23	1157	X	X	X		
14	FS-14	4	C	1	X								2/13/23	1158	X	X	X		
15	FS-15	4	C	1	X								2/13/23	1159	X	X	X		
14	FS-16	4	C	1	X								2/13/23	1200	X	X	X		
17	FS-17	4	C	1	X								2/13/23	1201	X	X	X		
18	FS-18	4	C	1	X								2/13/23	1202	X	X	X		
19	FS-19	4	C	1	X								2/13/23	1203	X	X	X		
20	FS-20	4	C	1	X								2/13/23	1204	X	X	X		
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Relinquished By:										Received By:									
Date: 2/13/23										Date: 2/13/23									
Time: 1518										Time: 1518									
Relinquished By:										Received By:									
Date:										Date:									
Time:										Time:									
Delivered By: (Circle One)										Observed Temp. °C									
Sampler - UPS - Bus - Other:										Corrected Temp. °C									
Sample Condition										CHECKED BY:									
Cool Intact										Thermometer ID #113									
Yes										Standard									
No										Rush									
Yes										Bacteria (only)									
No										Cool Intact									
Yes										Observed Temp. °C									
No										Corrected Temp. °C									
Remarks:										Remarks:									
Verbal Result:										Add'l Phone #:									
All Results are emailed. Please provide Email address:										Email:									

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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

Phone #: 210-219-8858

Project #: 03R1412042

Project Name: Surface SDS 141 SWD/BAT

Project Location: Eddy County, NM

Sample Name: KS Sam

P.O. #:

Company: Oxy USA Inc.

Attn: Wade Dittich

Address:

City:

State:

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

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Relinquished By:

Date: 2/13/23

Received By:

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

All Results are emailed. Please provide Email address:

Relinquished By:

Date:

Received By:

REMARKS:

Delivered By: (Circle One)

Observed Temp: 24.4

Sample Condition

CHECKED BY:

Turnaround Time:

Standard

Bacteria (only)

Sample Condition

Sampler - UPS - Bus - Other:

Corrected Temp: 1.8

Yes ☐ No ☐

Yes ☐ No ☐

Thermometer ID #113

Rush

Yes ☐ No ☐

Observed Temp: 24.4

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

pg. 4 of 8

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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

Project Manager: Beaux Jennings										P.O. #:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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Relinquished By:

Date: 2/13/25

Received By: Speedie

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

All Results are emailed. Please provide Email address:

Relinquished By:

Date: 2/13/25

Received By: Speedie

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

All Results are emailed. Please provide Email address:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

Observed Temp.: 84.4

Corrected Temp.: 1.8

Sample Condition: Cool Intact ☒ Yes ☐ No

Checked By: (Initials)

Turnaround Time:

Thermometer ID #113

Corrosion Factor: -0.3°C

Standard: ☒ Rush ☐ Normal

Bacteria (only) ☐ Yes ☐ No

Cool Intact ☐ Yes ☐ No

Observed Temp.: 84.4

Corrected Temp.: 1.8

Sample Condition: Cool Intact ☒ Yes ☐ No

Checked By: (Initials)

Turnaround Time:

Thermometer ID #113

Corrosion Factor: -0.3°C

Standard: ☒ Rush ☐ Normal

Bacteria (only) ☐ Yes ☐ No

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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

pg. 6 of 8

Company Name: Ensolum, LLC

Project Manager: Beaux Jennings

Address: 601 N Marlenfield Street, Suite 400

City: Midland

Phone #: 210-219-8858

Fax #:

State: TX Zip: 79701

Project #: 0381472042

Project Owner:

Project Name: Sundade SDS 11-1 SWD/BAT

Project Location: Bddy County, NM

Sample Name: KS SHM

P.O. #:

Company: Oxy USA Inc.

Attn: Wade Dittich

Address:

City:

State: Zip:

Phone #: 575-390-2828

Fax #:

BILL TO

ANALYSIS REQUEST

Project Manager: Beaux Jennings										P.O. #:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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Relinquished By:

Date: 2/13/23

Time: 1518

Received By:

Stadiguer

Date:

Time:

Remarks:

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

All Results are emailed. Please provide Email address:

Relinquished By:

Date:

Time:

Received By:

Date:

Time:

Remarks:

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

All Results are emailed. Please provide Email address:

Delivered By: (Circle One)

Observed Temp.: 24.1

Sample Condition

CHECKED BY: (initials)

Turnaround Time:

Standard

Bacteria (only)

Sample Condition

Sampler - UPS - Bus - Other:

Corrected Temp.: 1.8

Yes ☐ No ☐

Yes ☐ No ☐

Thermometer ID #113

0.00

Yes ☐ No ☐

Observed Temp.: C

Corrected Temp.: C

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

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

pg. 8 of 8

ANALYSIS REQUEST

Company Name: Ensolum, LLC	BILL TO	
Project Manager: Beaux Jennings	P.O. #:	
Address: 601 N Marientfeld Street, Suite 400	Company: Oxy USA Inc.	
City: Midland	Attn: Wade Dittich	
State: TX Zip: 79701	Address:	
Phone #: 210-219-8858 Fax #:	City:	
Project #: 0381417042 Project Owner:	State: Zip:	
Project Name: Substance SDS 11-1 SUD/BAT	Phone #: 575-390-2828	
Project Location: Eddy County, NM	Fax #:	
Sampler Name: KS SHM		

Address: 601 N Marinfeld Street, Suite 400		Company: Oxy USA Inc.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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Relinquished By:	Date: 2/13/23	Received By: Shod Riquery	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Add'l Phone #:
Relinquished By:	Date: 2/13/23	Received By: Shod Riquery	All Results are emailed. Please provide Email address:
Delivered By: (Circle One)	Observed Temp.: 84.4 °C	Sample Condition: <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Cool <input type="checkbox"/> Yes <input type="checkbox"/> No	Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>
Sampler - UPS - Bus - Other:	Corrected Temp.: 1.8 °C	Checked By: (Initials) SK	Thermometer ID #113 <input checked="" type="checkbox"/> Calibration <input checked="" type="checkbox"/> Bacteria (only) <input type="checkbox"/> Sample Condition <input type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <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

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.

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: 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	
DRO >C10-C28*	139	10.0	03/03/2023	ND	195	97.7	200	0.0686	
EXT DRO >C28-C36	48.9	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	
DRO >C10-C28*	334	10.0	03/03/2023	ND	195	97.7	200	0.0686	
EXT DRO >C28-C36	83.7	10.0	03/03/2023	ND					
Surrogate: 1-Chlorooctane	91.6 %	48.2-134							
Surrogate: 1-Chlorooctadecane	106 %	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 - 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	
DRO >C10-C28*	217	10.0	03/03/2023	ND	195	97.7	200	0.0686	
EXT DRO >C28-C36	43.0	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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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

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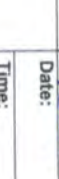



A handwritten signature in black ink, appearing to read "Celey D. Keene", is written over a horizontal line.

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

Company Name: Ensolum, LLC Project Manager: Beaux Jennings Address: 601 N. Marientfield St. STE 400 City: Midland State: TX Zip: 79701 Phone #: 210-219-8858 Fax #: Project #: 03081417042 Project Owner: Project Name: Sundance SDS 11-1 SWD/BAT Project Location: 32.240480, -103.735220 Sample Name: Keflee Smith <small>FOR LAB USE ONLY</small>				P.O. #: Company: Oxy USA, Inc. Attn: Wade Dittich Address: City: State: Zip: Phone #: 575-390-2828 Fax #:			
Lab I.D. H230914 Sample I.D. Sample Depth (feet) (G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER : DATE TIME				BILL TO ANALYSIS REQUEST			
				MATRIX PRESERV SAMPLING			
Relinquished By: 				Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:			
Relinquished By: 				All Results are emailed. Please provide Email address:			
Relinquished By: 				REMARKS:			
Relinquished By: 				Turnaround Time: <input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Bacteria (only) <input type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Corrected Temp. °C			
Relinquished By: 				Thermometer ID #113 <input type="checkbox"/> Corrosion Factor -0.5°C <input type="checkbox"/> 3 Day <input type="checkbox"/> No <input type="checkbox"/> Corrected Temp. °C			



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

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.

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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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, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	09/20/2023	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)

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	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, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	816	16.0	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, SM4500Cl-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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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)

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) 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	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



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 - 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, SM4500CI-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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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 - 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, SM4500Cl-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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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 - 75 4' (H235080-11)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	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	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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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 - 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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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 - 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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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 - 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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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 - 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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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 - 81 4' (H235080-17)

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	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	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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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 - 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



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 - 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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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".

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 Marlenfeld Street, Suite 400 City: Midland State: TX Zip: 79701 Phone #: 210-219-8858 Fax #: _____ Project #: 0381417042 Project Owner: _____ Project Name: Sundance 505 II-1 SUB/BAT Project Location: Eddy Co, NM Sampler Name: Brass Jennings / Kora Skinsdale FOR LAB USE ONLY				BILL TO P.O. #: _____ Company: Oxy USA Inc. Attn: Wade Dittrich 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 GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :		MATRIX PRESERV SAMPLING		DATE TIME		BTEx 8021 TPH 8015M Chloride 4500	
H235D80		4'		C 1				9/19/23		1042	
1 ES-65						X		1043		X	
2 ES-66								1045		X	
3 ES-67								1052		X	
4 ES-68								1053		X	
5 ES-69								1054		X	
6 ES-70								1055		X	
7 ES-71								1056		X	
8 ES-72								1057		X	
9 ES-73								1058		X	
10 ES-74						X		9/19/23		1059	

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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: _____	
Relinquished By: _____ Date: _____ Time: _____		REMARKS: _____	

Delivered By: (Circle One) Sample - UPS - Bus - Other: _____ Observed Temp.: 33.3°C Corrected Temp.: _____ Sample Condition: Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Checked BY: _____ (Initials)		Turnaround Time: _____ Thermometer ID: 149 Corrosion Factor: 0.5°C Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Bacteria (only) <input checked="" type="checkbox"/> Cool Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Sample Condition: Observed Temp.: _____ Corrected Temp.: _____	
--	--	---	--



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



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?

☒ Yes ☐ 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 OCD.enviro@state.nm.us and BLM_NM_CFO_Spill@blm.gov 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

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


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

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

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

Printed Name: Tyson Pierce

Title: Environmental Specialist

Signature: 

Date: 4/18/23

email: tyson_pierce@oxy.com

Telephone: 575-390-3610

OCD Only

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 not 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.
<input checked="" type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
<input checked="" type="checkbox"/> Field data
<input checked="" type="checkbox"/> Data table of soil contaminant concentration data
<input checked="" type="checkbox"/> Depth to water determination
<input checked="" type="checkbox"/> Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release
<input checked="" type="checkbox"/> Boring or excavation logs
<input checked="" type="checkbox"/> Photographs including date and GIS information
<input checked="" type="checkbox"/> Topographic/Aerial maps
<input checked="" type="checkbox"/> 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: _____

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: _____

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS

Action 521163

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 521163
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2215134499
Incident Name	NAPP2215134499 SUNDANCE-SDS 11-1 SWD/BAT @ P-01-24S-31E 130N 180E
Incident Type	Release Other
Incident Status	Reclamation 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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Action 521163

QUESTIONS (continued)

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QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	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: Daniel Sparks Title: Environmental Analyst III Email: daniel_sparks@oxy.com Date: 10/29/2025
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Action 521163

QUESTIONS (continued)

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QUESTIONS**Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	Attached Document
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	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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Action 521163

QUESTIONS (continued)

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QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	fEEM0112342028 LEA LAND LANDFILL
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	No
OR is the off-site disposal site, to be used, an NMED facility	No
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No
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: Daniel Sparks Title: Environmental Analyst III Email: daniel_sparks@oxy.com Date: 10/29/2025
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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Action 521163

QUESTIONS (continued)

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	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

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

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Action 521163

QUESTIONS (continued)

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	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Sampling Event Information	
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	12757
What was the total volume (cubic yards) remediated	1890
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	12757
What was the total volume (in cubic yards) reclaimed	1890
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: Daniel Sparks Title: Environmental Analyst III Email: daniel_sparks@oxy.com Date: 10/29/2025
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Action 521163

QUESTIONS (continued)

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QUESTIONS

Reclamation Report	
<i>Only answer the questions in this group if all reclamation steps have been completed.</i>	
Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	12757
What was the total volume of replacement material (in cubic yards) for this site	1890
<i>Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.</i>	
Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseeded commence(d)	07/03/2025
Summarize any additional reclamation activities not included by answers (above)	N/A
<i>The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseeding plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 NMAC.</i>	
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: Daniel Sparks Title: Environmental Analyst III Email: daniel_sparks@oxy.com Date: 10/29/2025

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QUESTIONS (continued)

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QUESTIONS

Revegetation Report	
<i>Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.</i>	
Requesting a restoration complete approval with this submission	No
<i>Per Paragraph (4) of Subsection (D) of 19.15.29.13 NMAC for any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.</i>	

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CONDITIONS

Action 521163

CONDITIONS

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CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	The reclamation report has been approved pursuant to 19.15.29.13 E. NMAC. The acceptance of this 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; or if the location fails to revegetate properly. In addition, the OCD approval does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.	12/23/2025