



January 23, 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: Remediation Workplan  
Sand Dunes 28 Fed #1 SWD  
Incident Number NAPP2218940420  
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Oxy USA Inc. (Oxy), has prepared this *Remediation Workplan* to document assessment, delineation, and soil sampling activities performed at the Sand Dunes 28 Fed 1 SWD (Site). The purpose of the Site assessment, delineation, and soil sampling activities was to assess for the presence or absence of impacts to soil resulting from a crude oil and produced water release at the Site. Based on field observations, field screening activities, and soil sample laboratory analytical results, Oxy is submitting this *Remediation Workplan* to request a depth to water variance within 0.5-miles of the Site needed for closure.

## **SITE DESCRIPTION AND RELEASE SUMMARY**

The Site is located in Unit J, Section 28, Township 23 South, Range 31 East, in Eddy County, New Mexico (32.273598°, -103.780617°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On July 5, 2022, equipment failure on an injection flowline resulted in the release of approximately 15 barrels (bbls) of produced water spilled outside of a lined containment. A vacuum truck was dispatched to the Site to recover 1 bbl of free-standing fluids. Oxy reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on July 8, 2022. The release was assigned Incident Number NAPP2218940420.

## **SITE CHARACTERIZATION AND CLOSURE CRITERIA**

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization are summarized below and detailed in the NMOCD permitting portal Form C-141 Site Characterization section. Site receptors are identified on **Figure 4**.

Depth to groundwater at the Site is reasonably estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Society (USGS) well 321648103482101, located approximately 1.5 miles northwest of the Site. The depth to water was most recently measured on September 20, 1972 and indicated to be 139.9 feet bgs. In addition, New Mexico Office of the State Engineer documents well C-04553 POD 1, installed July 30, 2021, and located approximately 0.9 miles

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to the west of the Site, was drilled to 106 feet and encountered no water. The associated well records are included in **Appendix A**.

The closest continuously flowing or significant watercourse to the Site is a dry wash, located approximately 11,088 feet southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Closure criteria is identified on **Figure 4**.

Based on the results of the Site Characterization, the following NMOCD Table I Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- Total TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

## LINER INSPECTION ACTIVITIES

On June 24, 2024, Ensolum arrived onsite to conduct a site assessment and liner inspection. Ensolum did not see any abnormalities or faults with the liner.

## DELINEATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

Between June 24, 2024 and July 30, 2024, Ensolum personnel conducted Site delineation activities to evaluate the release extent based on information provided on the Form C-141 and visual observations. Seven boreholes (PH01 through PH07) were advanced via backhoe within the release extent to assess for the presence or absence of impacted soil. The delineation boreholes were advanced to depths ranging from 0.5 feet to 4 feet bgs. In addition, six delineation soil samples (SS01 through SS04, DS01 and DS02) were collected around the release area, at depths ranging from 0.25 feet to 0.5 feet bgs to confirm the lateral extent of the release. Discrete soil samples were collected from each delineation pothole at depths ranging from 0.5 ft to 4 ft bgs. The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. Photographic documentation was completed during the Site visit and a photographic log is included as **Appendix B**.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico, for analysis of the following chemicals of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following Standard Method SM4500CI-B.

## CONFIRMATION SOIL SAMPLING AND EXCAVATION ACTIVITIES

Between October 7, 2024 and November 5, 2024, Ensolum personnel returned to the Site to complete confirmation soil sampling of the release extent. Twenty soil samples (CS01 through CS20) were collected every 200 square feet at a depth of 0.25 feet bgs to confirm compliance with the reclamation

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requirements. Additionally, four hydrovac excavations were completed in the areas indicative of limits outside the reclamation requirements. These areas were resampled and renamed FS01 through FS07 respectively. Six soil samples (SW01 through SW06) were collected along the sidewalls of the hydrovac excavations every 200 square feet. The soil samples were field screened for VOCs and chloride. The soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on **Figure 3**. Photographic documentation was completed during the Site visit and a photographic log is included as **Appendix B**.

Laboratory analytical results for soil samples PH01 through PH07, CS01 through CS03, CS05 through CS07, CS09, CS10, CS13 through CS15, CS17 through CS20, FS01 through FS07, and SW01 through SW06 collected within the release area and soil samples SS01 through SS04, DS01, and DS02 collected around the release area indicated all COC concentrations were compliant with the reclamation requirement.

## VARIANCE REQUESTS

### Groundwater Variance

Based on a desktop review of the surrounding area, there is one NMOSE permitted well (C-04553-POD1) and one USGS permitted well (well 321648103482101) with depths to groundwater greater than 100 feet bgs as shown in **Figure 4**. The Well Records for both wells can be found as Supporting Documentation in **Appendix A**. However, USGS well 321648103482101 was completed in 1972, therefore its data is greater than 25 years of age and is approximately 1.5. As well, NMOSE well C4553-POD1 is approximately 0.9 miles west of the Site, which is outside the permissible 0.5-mile radius.

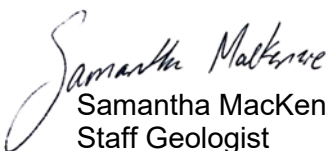
Ensolum, on behalf of Oxy, would like to request a depth to groundwater Closure Criteria Variance for the Site based on the information provided above and included as Supporting Documentation in **Appendix A** to reflect groundwater greater than 100 feet as shown in Table I of 19.15.29.12 NMAC for any on-pad remediation greater than 4 feet bgs.

## PROPOSED REMEDIATION WORKPLAN

Oxy is requesting a depth to water variance which would cease the need for any further work to be completed at the site. Oxy believes the remediation activities described above are protective of human health, the environment, and groundwater. As such, Oxy respectfully requests approval of this Remediation Workplan.

If you have any questions or comments, please contact Mr. Beaux Jennings at (210) 219-8858 or [bjennings@ensolum.com](mailto:bjennings@ensolum.com).

Sincerely,  
**Ensolum, LLC**

  
Samantha MacKenzie  
Staff Geologist

  
Beaux Jennings  
Associate Principal

cc: Wade Dittrich, Oxy USA Inc.  
Tyson Pierce, Oxy USA Inc.  
BLM

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Appendices:

|            |  |
|------------|--|
| Figure 1   | Topographic Map  |
| Figure 2   | Site Vicinity Map  |
| Figure 3   | Site Map   |
| Figure 4   | Closure Criteria Map   |
| Figure 5   | Backfill Site Map  |
| Table 1    | Soil Sample Analytical Results                                 |
| Table 2    | Backfill Soil Sample Analytical Results                        |
| Appendix A | Referenced Well Records  |
| Appendix B | Photographic Log   |
| Appendix C | Laboratory Analytical Reports & Chain-of-Custody Documentation |





FIGURES







## Site Vicinity Map

Oxy USA Inc.

Sand Dunes 28 Fed #1 SWD

32.273598° N, 103.780617° W

Eddy County, New Mexico

PROJECT NUMBER: 03B1417215

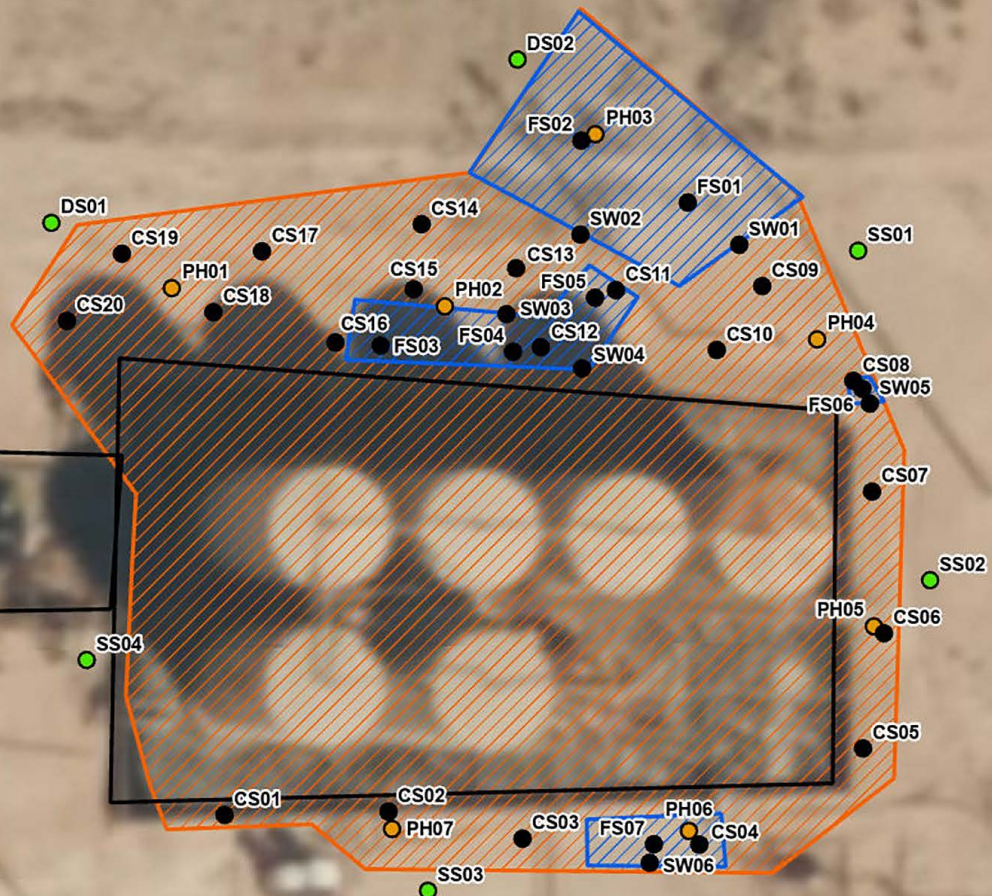
**FIGURE**

**2**



**Legend**

- Delineation Soil Sample Location
- Confirmation Soil Sample Location
- Pothole Soil Sample Location
- Liner Boundary
- Excavation Extent
- Release Extent



Sources: Environmental Systems Research Institute (ESRI)

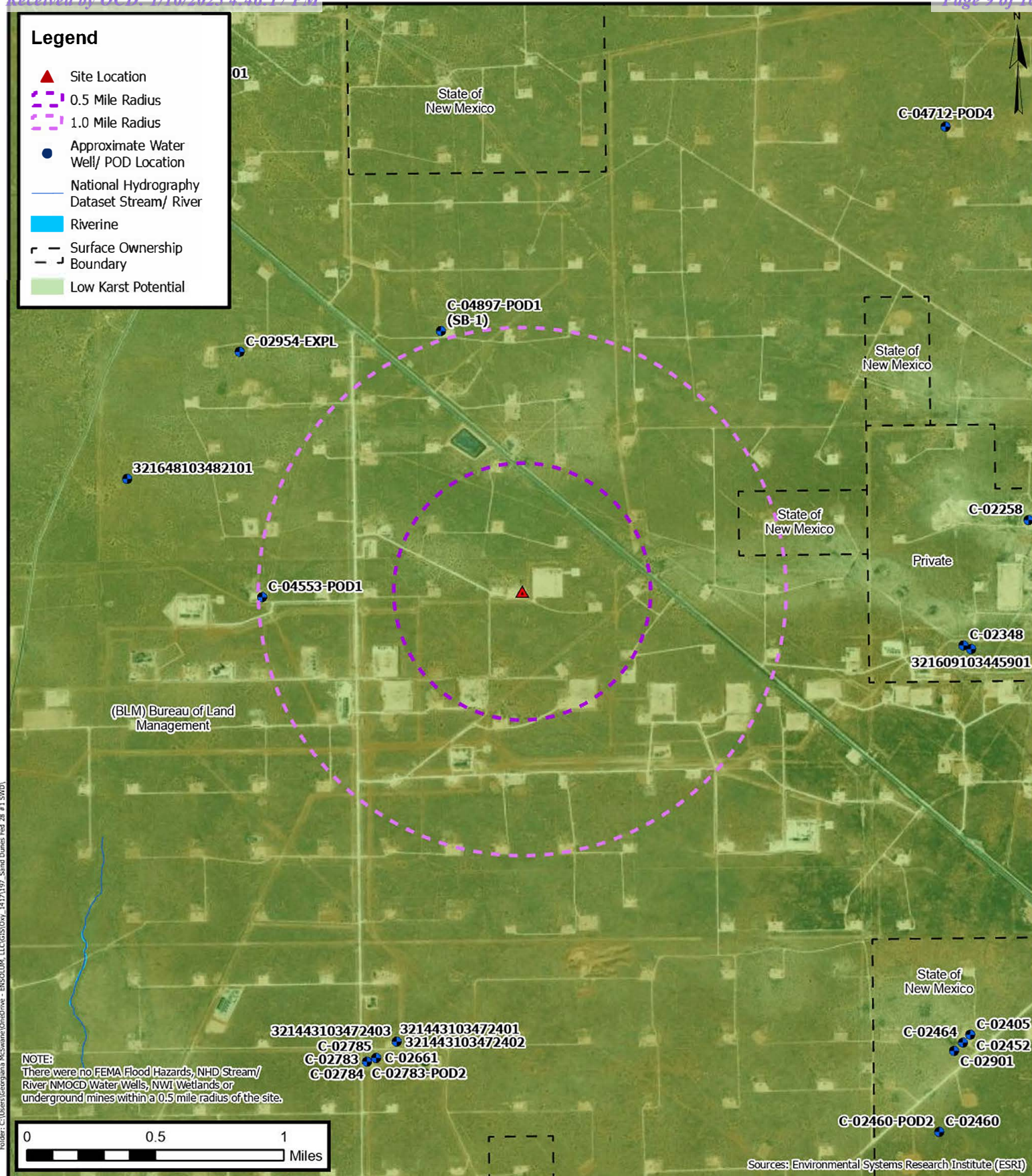
**Site Map**

Oxy USA Inc.  
 Sand Dunes 28 Fed #1 SWD  
 32.273598° N, 103.780617° W  
 Eddy County, New Mexico

PROJECT NUMBER: 03B1417215

**FIGURE****3**





## Closure Criteria Map

Oxy USA Inc.  
Sand Dunes 28 Fed #1 SWD  
32.273598° N, 103.780617° W  
Eddy County, New Mexico

PROJECT NUMBER: 03B1417215

**FIGURE**

**4**



**Legend**

- Composite Sample Location

Lea Land Caliche Pit

0 1,000 2,000  
Feet

Sources: Environmental Systems Research Institute (ESRI)



## Backfill Site Map

Lea Land Caliche Pit  
32.5232397° N, 103.7845410° W  
Lea County, New Mexico

FIGURE  
**5**



TABLES



**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 Sand Dunes 28 Federal #001 SWD  
 Oxy USA Inc.  
 Eddy County, New Mexico  
 Project No. 03B1417215

| Sample Designation                             | Date       | Depth (feet bgs) | Benzene (mg/kg) | Toulene (mg/kg) | Ethylbenzene (mg/kg) | Total Xylenes (mg/kg) | Total BTEX (mg/kg) | TPH GRO C <sub>6</sub> -C <sub>10</sub> (mg/kg) | TPH DRO >C <sub>10</sub> -C <sub>28</sub> (mg/kg) | TPH ORO >C <sub>28</sub> -C <sub>36</sub> (mg/kg) | TPH GRO+DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg) | TPH Total C <sub>6</sub> -C <sub>36</sub> (mg/kg) | Chloride (mg/kg) |
|--|------------|------------------|-----------------|-----------------|----------------------|-----------------------|--------------------|---|---|---|---|---|------------------|
| NMOCD Table I Closure Criteria (NMAC 19.15.29) |            |                  | 10              | NE              | NE                   | NE                    | 50                 | NE  | NE  | NE  | 1,000   | 2,500   | 20,000           |
| Pothole Soil Sample Analytical Results         |            |                  |                 |                 |                      |                       |                    |   |   |   |   |   |                  |
| PH01   | 07/02/2024 | 0.5              | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 960              |
|  | 07/02/2024 | 1                | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 512              |
|  | 07/02/2024 | 2                | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 1,620            |
| PH02   | 07/02/2024 | 0.5              | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 368              |
|  | 07/02/2024 | 1                | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 336              |
|  | 07/02/2024 | 2                | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 448              |
| PH03   | 07/02/2024 | 0.5              | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 2,840            |
|  | 07/02/2024 | 1                | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 1,500            |
|  | 07/02/2024 | 2                | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 928              |
| PH04   | 07/02/2024 | 0.5              | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 48.0             |
|  | 07/02/2024 | 2                | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 48.0             |
|  | 07/02/2024 | 4                | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 96.0             |
| PH05   | 07/02/2024 | 0.5              | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 80.0             |
|  | 07/02/2024 | 3                | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 176              |
|  | 07/02/2024 | 4                | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 192              |
| PH06   | 07/02/2024 | 1                | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 1,500            |
|  | 07/02/2024 | 3                | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 816              |
|  | 07/02/2024 | 4                | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 1,060            |
| PH07   | 07/02/2024 | 0.5              | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 48.0             |
|  | 07/02/2024 | 1                | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 32.0             |
|  | 07/02/2024 | 4                | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 48.0             |
| Delineation Soil Sample Analytical Results     |            |                  |                 |                 |                      |                       |                    |   |   |   |   |   |                  |
| SS01   | 07/30/2024 | 0.5              | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 96.0             |
| SS02   | 07/30/2024 | 0.5              | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 224              |
| SS03   | 07/30/2024 | 0.5              | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 96.0             |
| SS04   | 07/30/2024 | 0.5              | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 336              |
| DS01   | 11/05/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | <16.0            |
| DS02   | 11/05/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 32.0             |

**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 Sand Dunes 28 Federal #001 SWD  
 Oxy USA Inc.  
 Eddy County, New Mexico  
 Project No. 03B1417215

| Sample Designation                             | Date       | Depth (feet bgs) | Benzene (mg/kg) | Toulene (mg/kg) | Ethylbenzene (mg/kg) | Total Xylenes (mg/kg) | Total BTEX (mg/kg) | TPH GRO C <sub>6</sub> -C <sub>10</sub> (mg/kg) | TPH DRO >C <sub>10</sub> -C <sub>28</sub> (mg/kg) | TPH ORO >C <sub>28</sub> -C <sub>36</sub> (mg/kg) | TPH GRO+DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg) | TPH Total C <sub>6</sub> -C <sub>36</sub> (mg/kg) | Chloride (mg/kg) |
|--|------------|------------------|-----------------|-----------------|----------------------|-----------------------|--------------------|---|---|---|---|---|------------------|
| NMOCD Table I Closure Criteria (NMAC 19.15.29) |            |                  | 10              | NE              | NE                   | NE                    | 50                 | NE  | NE  | NE  | 1,000   | 2,500   | 20,000           |
| Confirmation Soil Sample Analytical Results    |            |                  |                 |                 |                      |                       |                    |   |   |   |   |   |                  |
| CS01   | 10/07/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 8,320            |
| CS02   | 10/07/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | 17.7  | 17.3  | 17.7  | 35.0  | 3,600            |
| CS03   | 10/07/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | 62.8  | 57.0  | 62.8  | 119.8   | 2,360            |
| CS04   | 10/07/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | 1,660   | 989   | 1,660   | 2,649   | 3,320            |
| CS05   | 10/07/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | 251   | 147   | 251   | 398   | 4,560            |
| CS06   | 10/07/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | 12.5  | <10.0   | 12.5  | 5,600            |
| CS07   | 10/07/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | 346   | 157   | 346   | 503   | 1,630            |
| CS08   | 10/07/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | 5,170   | 2,240   | 5,170   | 7,410   | 1,840            |
| CS09   | 10/07/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | 12.4  | 16.7  | 12.4  | 29.1  | 224              |
| CS10   | 10/07/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | 47.3  | 34.6  | 47.3  | 81.9  | 3,080            |
| CS11   | 10/07/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | 1,750   | 919   | 1,750   | 2,669   | 2,000            |
| CS12   | 10/07/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | 3,790   | 1,590   | 3,790   | 5,380   | 3,200            |
| CS13   | 10/07/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | 11.2  | <10.0   | 11.2  | 11.2  | 224              |
| CS14   | 10/07/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 6,800            |
| CS15   | 10/07/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | 153   | 70.6  | 153   | 223.6   | 6,960            |
| CS16   | 10/07/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | 6,080   | 2,280   | 6,080   | 8,360   | 5,200            |
| CS17   | 10/07/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 112              |
| CS18   | 10/07/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 64.0             |
| CS19   | 10/07/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 256              |
| CS20   | 10/07/2024 | 0.25             | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | 457   | 174   | 457   | 631   | 624              |

**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
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 Oxy USA Inc.  
 Eddy County, New Mexico  
 Project No. 03B1417215

| Sample Designation                                 | Date       | Depth (feet bgs) | Benzene (mg/kg) | Toulene (mg/kg) | Ethylbenzene (mg/kg) | Total Xylenes (mg/kg) | Total BTEX (mg/kg) | TPH GRO C <sub>6</sub> -C <sub>10</sub> (mg/kg) | TPH DRO >C <sub>10</sub> -C <sub>28</sub> (mg/kg) | TPH ORO >C <sub>28</sub> -C <sub>36</sub> (mg/kg) | TPH GRO+DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg) | TPH Total C <sub>6</sub> -C <sub>36</sub> (mg/kg) | Chloride (mg/kg) |
|--|------------|------------------|-----------------|-----------------|----------------------|-----------------------|--------------------|---|---|---|---|---|------------------|
| NMOCD Table I Closure Criteria (NMAC 19.15.29)     |            |                  | 10              | NE              | NE                   | NE                    | 50                 | NE  | NE  | NE  | 1,000   | 2,500   | 20,000           |
| Excavation Soil Sample Analytical Results          |            |                  |                 |                 |                      |                       |                    |   |   |   |   |   |                  |
| FS01   | 07/29/2024 | 4                | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 96.0             |
| FS02   | 07/29/2024 | 4                | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 224              |
| FS03   | 11/05/2024 | 0.5              | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | 764   | 277   | 764   | 1,041   | 928              |
| FS04   | 11/05/2024 | 0.5              | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | 273   | 104   | 273   | 377   | 528              |
| FS05   | 11/05/2024 | 0.5              | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | 62.2  | 21.5  | 62.2  | 83.7  | 1,410            |
| FS06   | 11/05/2024 | 0.5              | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | 24.3  | <10.0   | 24.3  | 24.3  | 96.0             |
| FS07   | 11/05/2024 | 1                | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | 17.9  | <10.0   | 17.9  | 17.9  | 96.0             |
| Excavation Sidewall Soil Sample Analytical Results |            |                  |                 |                 |                      |                       |                    |   |   |   |   |   |                  |
| SW01   | 07/29/2024 | 0-4              | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 160              |
| SW02   | 07/29/2024 | 0-4              | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 528              |
| SW03   | 11/05/2024 | 0-0.5            | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 64.0             |
| SW04   | 11/05/2024 | 0-0.5            | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 32.0             |
| SW05   | 11/05/2024 | 0-0.5            | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 48.0             |
| SW06   | 11/05/2024 | 0-1              | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0   | <10.0   | <10.0   | <10.0   | <10.0   | 80.0             |

**Notes:**

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Concentrations in **bold** and yellow exceed the NMOCD Table I Closure Criteria or reclamation standard where applicable.

Concentrations filled in have been excavated



**TABLE 2**  
**BACKFILL SOIL SAMPLE ANALYTICAL RESULTS**  
 Lea Land Caliche Pit  
 Oxy USA, Inc.  
 Lea County, New Mexico  
 Ensolum Project No. NA

| Sample Designation  | Date       | Depth (feet bgs) | Benzene (mg/kg) | Toluene (mg/kg) | Ethylbenzene (mg/kg) | Total Xylenes (mg/kg) | Total BTEX (mg/kg) | TPH GRO (mg/kg) | TPH DRO (mg/kg) | TPH MRO (mg/kg) | Total TPH (GRO+DRO+MRO) (mg/kg) | Chloride (mg/kg) |
|---|------------|------------------|-----------------|-----------------|----------------------|-----------------------|--------------------|-----------------|-----------------|-----------------|---------------------------------|------------------|
| New Mexico Oil Conservation Division Closure Criteria for Soils Impacted by a Release (≤ 50 feet) |            |                  | 10              | NE              | NE                   | NE                    | 50                 | NE              | NE              | NE              | 100                             | 600              |
| Composite Background Soil Sample Analytical Result  |            |                  |                 |                 |                      |                       |                    |                 |                 |                 |                                 |                  |
| Lea Land Caliche Pit  | 09/13/2024 | NA               | <0.050          | <0.050          | <0.050               | <0.150                | <0.300             | <10.0           | 98.6            | <10.0           | 98.6                            | 560              |

bgs: below ground surface

mg/kg: milligrams per kilogram

NA: Not Applicable

NE: Not Established

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

MRO: Motor Oil/Lube Oil Range Organics

TPH: Total Petroleum Hydrocarbon



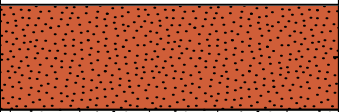
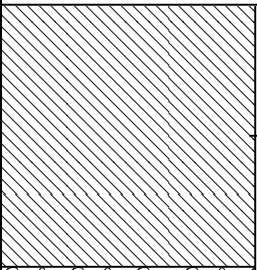
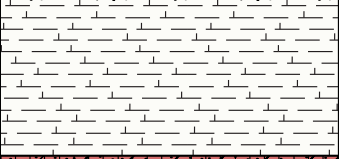
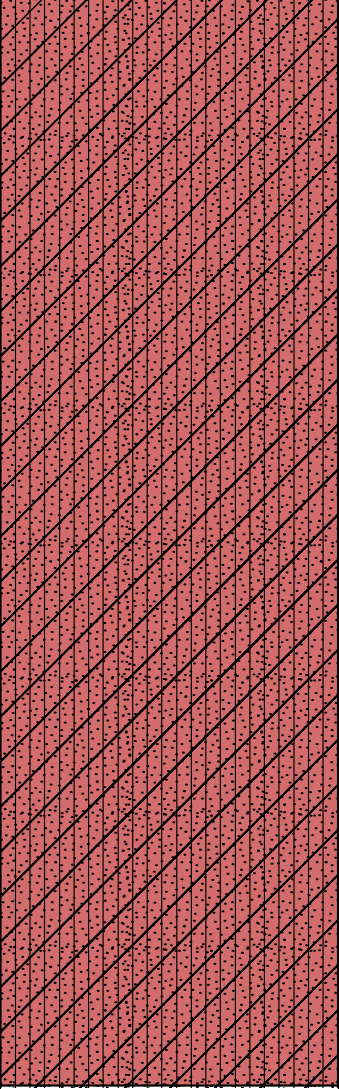
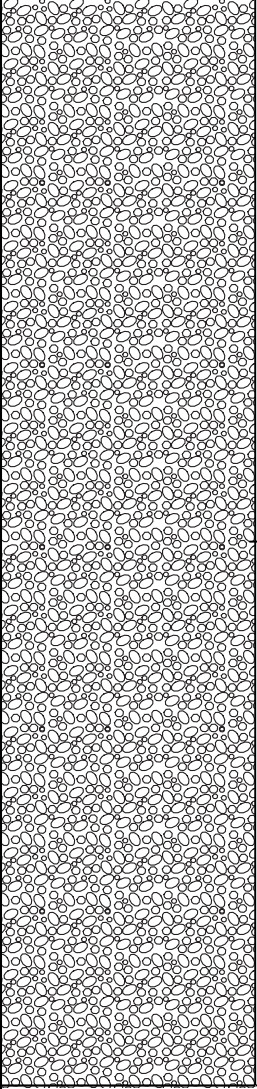
## APPENDIX A

### Referenced Well Records

---



## BOREHOLE LOG C-4553 POD 1

| <b>PROJECT NUMBER</b> C-4553 POD 1<br><b>PROJECT NAME</b> Soil Boring - DTG<br><b>CLIENT</b> OXY USA, Inc<br><b>ADDRESS</b> PO Box 4294, Houston TX 77210<br><b>LICENCE NO.</b> WD-1035 Edd Coffey |                                       | <b>DRILLING DATE</b> 7/30/2021<br><b>TOTAL DEPTH</b> 103 feet<br><b>DIAMETER</b> 8-3/4"<br><b>CASING</b> uPVC<br><b>SCREEN</b> uPVC Manually Slotted |   | <b>COORDINATES</b> 32.27335 N, -103.78742<br><b>COORD SYS</b> WGS 84<br><b>COMPLETION</b> Plugged and Abandoned<br><b>SURFACE ELEVATION</b> 3357 ft MSL |  |
|--|---------------------------------------|--|---|---|--|
| <b>COMMENTS</b> South of large mesquite bush - west side of pad  |                                       |  |   | <b>LOGGED BY</b> John Farrell P.G.<br><b>CHECKED BY</b> Dan Dunkelburg  |  |
| Graphic Log  | Material Description                  | Plugging Diagram   | Elevation (ft)  |   |  |
|   | Sand, red, dry                        | <br>10 Haliburton Hole Plug + 5 gal water/bag                      | 5   |   |  |
|   | Caliche, white, dry                   |  | 10<br>15<br>20  |   |  |
|    | Claystone, silty, reddish orange, dry | <br>backfill  | 25<br>30<br>35<br>40<br>45<br>50<br>55<br>60<br>65<br>70<br>75<br>80<br>85<br>90<br>95<br>100 |   |  |
| Termination Depth at: 103 feet   |                                       |  |   |   |  |

**Disclaimer** This bore log is intended for environmental not geotechnical purposes.

Page 1 of 1

## ENVIRONMENTAL WELL BH01 Env Well

|  |   |  |
|--|---|--|
| <b>PROJECT NUMBER</b> NMOSE # C4553 Pod 1        | <b>DRILLING COMPANY</b> ABC Drilling          | <b>COORDINATES</b> 4581.8, 6021          |
| <b>PROJECT NAME</b> Soil Boring                  | <b>DRILLER</b> Mr M. Brown                    | <b>COORD SYS</b>                         |
| <b>CLIENT</b> OXY                                | <b>DRILL RIG</b>                              | <b>SURFACE ELEVATION</b> 45.15           |
| <b>ADDRESS</b> P O Box 4294, Houston TX 77210    | <b>DRILLING METHOD</b> Augering Hollow Flight | <b>WELL TOC</b> A=45.2; B=45.23; C=45.17 |
| <b>DRILLING DATE</b> 07                          | <b>TOTAL DEPTH</b> 14                         | <b>LOGGED BY</b> JB                      |
| <b>LICENCE NO.</b> L312-Nb4                      | <b>DIAMETER</b>                               | <b>CHECKED BY</b> M. Smart               |
| <b>COMPLETION</b>                                |   |  |
| <b>CASING</b> uPVC                               |   | <b>SCREEN</b> uPVC Factory Slotted       |
| <b>COMMENTS</b> Near the corner of the main shed |   |  |

| Depth (m) | Drilling Method | PID | Samples      | Sample Type | Is Analysed? | Water | Well Installation | Graphic Log | Material Description   | Moisture | Consistency | Additional Observations | Elevation (m) |
|-----------|-----------------|-----|--------------|-------------|--------------|-------|-------------------|-------------|--|----------|-------------|-------------------------|---------------|
| 1         | AU              | 82  |              |             |              |       | A B C             |             | ASPHALT: Hard  |          | H           |                         | 45            |
| 2         |                 |     | BH01_2-2.1   | SS          |              |       |                   |             | SILTY CLAY: Silty red clay with minor organic matter, Dry, Dense | D        | D           | Old pipework            | 44            |
| 3         |                 |     |              |             |              |       |                   |             |  |          |             |                         | 43            |
| 4         |                 |     |              |             |              |       |                   |             |  |          |             |                         | 42            |
| 5         |                 |     | BH01_5-5.3   | SS          | Y            |       |                   |             |  |          |             |                         | 41            |
| 6         |                 | 6   | BH01_5.8-6   | SS          |              |       |                   |             |  |          |             |                         | 40            |
| 7         |                 |     | BH01_6.4-6.8 | SS          | Y            |       |                   |             | GRAVELLY SAND: Wet, Dense  | W        | D           | Petroleum Smell         | 39            |
| 8         |                 |     |              |             |              |       |                   |             |  |          |             |                         | 38            |
| 9         |                 |     | BH01_8-8.3   | SS          | Y            |       |                   |             | SILTY CLAY: Dry, Dense   | D        | D           |                         | 37            |
| 10        |                 |     | BH01_8.4-8.5 | SS          |              |       |                   |             |  |          |             |                         | 36            |
| 11        |                 | 34  |              |             |              |       |                   |             | SANDY GRAVEL: Dry, Dense   | D        | D           |                         | 35            |
| 12        |                 |     |              |             |              |       |                   |             |  |          |             |                         | 34            |
| 13        |                 |     |              |             |              |       |                   |             | GRANITE: Highly weathered granite, Dry, Hard                     | D        | H           |                         | 33            |
| 14        |                 |     |              |             |              |       |                   |             |  |          |             |                         | 32            |
| 14        |                 |     |              |             |              |       |                   |             | Termination Depth at: 14 m                                       |          |             |                         | 31            |

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Page 1 of 1



## ENVIRONMENTAL BOREHOLE / TESTPIT TP04

|  |  |  |  |                                  |  |
|--|--|--|--|----------------------------------|--|
| <b>PROJECT NUMBER</b> Sample HGC             |  | <b>DRILLING DATE</b> 13/08/2009 1:04:00 PM - |  | <b>COORDINATES</b> 4520, 6356    |  |
| <b>PROJECT NAME</b> Sample Hydrogeo & Contam |  | <b>DRILLING COMPANY</b> PGCi Drilling        |  | <b>COORD SYS</b>                 |  |
| <b>CLIENT</b> Redev Pty Ltd                  |  | <b>DRILLER</b> John McMullan                 |  | <b>SURFACE ELEVATION</b>         |  |
| <b>ADDRESS</b> 1 Hybiscus Blvd, Alderville   |  | <b>DRILLING METHOD</b> Excavator             |  | <b>LOGGED BY</b> Igor Krinitskiy |  |
|  |  | <b>TOTAL DEPTH</b> 4                         |  | <b>CHECKED BY</b>                |  |

| COMMENTS  |      |                        |          |              |             |      |   |                                   |
|-----------|------|------------------------|----------|--------------|-------------|------|---|-----------------------------------|
| Depth (m) | PID  | Penetration Resistance | Samples  | Is Analysed? | Graphic Log | USCS | Material Description  | Additional Observations           |
| 0.5       |      |                        |          |              | PT          | PT   | TOPSOIL: PT Dark brown, moist. High Organic content., Saturated   |                                   |
| 1         |      |                        |          |              | SC          | SC   | CLAYEY SAND: SC, pale greenish brown medium bedding thickness, laminated, fine to medium, poorly graded, subangular, flat and elongated clayey silty sand Calcareous little chert, some coal, moist, weak HCL reaction, weak cementation, widely fissured | iron oxide staining, no odour     |
| 2.5       | 4000 |                        | TP04 2.5 | Y            |             |      | SANDSTONE: very dark brownish gray thickly crossbedded, bioturbated, flow banded, medium grained clayey quartz sandstone, Dry, very hard, very wide fracture spacing, moderately weathered, 60 deg (Primary) bedding angle                                | iron oxide staining, slight odour |
| 3         | 4    |                        |          |              |             |      | GRANITE:  |                                   |
| 3.5       |      |                        |          |              |             |      | Termination Depth at:3.2 m  |                                   |
| 4         |      |                        |          |              |             |      |   |                                   |
| 4.5       |      |                        |          |              |             |      |   |                                   |
| 5         |      |                        |          |              |             |      |   |                                   |
| 5.5       |      |                        |          |              |             |      |   |                                   |

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Agency code = usgs

site\_no list =

- 321648103482101

Minimum number of levels = 1

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USGS 321648103482101 23S.31E.29.11333

Eddy County, New Mexico  
Latitude 32°16'48", Longitude 103°48'21" NAD27  
Land-surface elevation 3,336 feet above NAVD88  
The depth of the well is 220 feet below land surface.  
This well is completed in the Other aquifers (N9999OTHER) national aquifer.  
This well is completed in the Dewey Lake Redbeds (312DYLK) local aquifer.

Output formats

|                                    |
|------------------------------------|
| <a href="#">Table of data</a>      |
| <a href="#">Tab-separated data</a> |
| <a href="#">Graph of data</a>      |
| <a href="#">Reselect period</a>    |

| Date       | Time | ?<br>Water-level<br>date-time<br>accuracy | ?<br>Parameter<br>code | Water<br>level,<br>feet<br>below<br>land<br>surface | Water<br>level,<br>feet<br>above<br>specific<br>vertical<br>datum | Referenced<br>vertical<br>datum | ?<br>Status | ?<br>Method of<br>measurement | ?<br>Measuring<br>agency | ?<br>Source of<br>measurement | ?<br>Water-level<br>approval<br>status |
|------------|------|---|------------------------|---|---|---------------------------------|-------------|-------------------------------|--------------------------|-------------------------------|--|
|            |      |   |                        |   |   |                                 |             |                               |                          |                               |  |
| 1959-03-26 |      |   | D62610                 |   | 3195.91   | NGVD29                          | 1           | Z                             |                          |                               | A                                      |
| 1959-03-26 |      |   | D62611                 |   | 3197.57   | NAVD88                          | 1           | Z                             |                          |                               | A                                      |
| 1959-03-26 |      |   | D72019                 | 138.43  |   |                                 | 1           | Z                             |                          |                               | A                                      |
| 1972-09-20 |      |   | D62610                 |   | 3194.44   | NGVD29                          | P           | Z                             |                          |                               | A                                      |
| 1972-09-20 |      |   | D62611                 |   | 3196.10   | NAVD88                          | P           | Z                             |                          |                               | A                                      |
| 1972-09-20 |      |   | D72019                 | 139.90  |   |                                 | P           | Z                             |                          |                               | A                                      |

Explanation

| Section                        | Code   | Description  |
|--------------------------------|--------|--|
| Water-level date-time accuracy | D      | Date is accurate to the Day                                  |
| Parameter code                 | 62610  | Groundwater level above NGVD 1929, feet                      |
| Parameter code                 | 62611  | Groundwater level above NAVD 1988, feet                      |
| Parameter code                 | 72019  | Depth to water level, feet below land surface                |
| Referenced vertical datum      | NAVD88 | North American Vertical Datum of 1988                        |
| Referenced vertical datum      | NGVD29 | National Geodetic Vertical Datum of 1929                     |
| Status                         | 1      | Static   |
| Status                         | P      | Pumping  |
| Method of measurement          | Z      | Other.   |
| Measuring agency               |        | Not determined   |
| Source of measurement          |        | Not determined   |
| Water-level approval status    | A      | Approved for publication -- Processing and review completed. |

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**URL: <https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?>**



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Page Last Modified: 2024-06-11 12:12:03 EDT

0.27 0.23 nadww01



## APPENDIX B

### Photographic Log

---

**Photographic Log**

Oxy USA, inc.

Sand Dunes 28 Fed #1 SWD

Incident Number: NAPP2218940420



Photograph: 1  
Description: Liner Inspection  
View: North

Date: 6/24/2024



Photograph: 2  
Description: Liner Inspection  
View: Southeast

Date: 6/24/2024



Photograph: 3  
Description: Release Extent  
View: East

Date: 7/2/2024



Photograph: 4  
Description: Potholing Activities  
View: West

Date: 7/2/2024





### Photographic Log

Oxy USA, inc.

Sand Dunes 28 Fed #1 SWD

Incident Number: NAPP2218940420



Photograph: 5 Date: 7/29/2024  
Description: Excavation Activites  
View: West



Photograph: 6 Date: 10/7/2024  
Description: Excavation Activites  
View: Southeast



Photograph: 7 Date: 11/5/2024  
Description: Excavation Activites  
View: South



Photograph: 8 Date: 11/5/2024  
Description: Excavation Activites  
View: South





## APPENDIX C

### Laboratory Analytical Reports & Chain of Custody Documentation

---



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

---

July 10, 2024

HADLIE GREEN

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: SAND DUNES FED 28 #1 SWD

Enclosed are the results of analyses for samples received by the laboratory on 07/03/24 9:57.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2024  
 Reported: 07/10/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/02/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: PH 01 0.5 (H244000-01)**

| 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           | 07/09/2024 | ND              | 2.01 | 101        | 2.00          | 3.42 |           |
| Toluene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.16 | 108        | 2.00          | 4.76 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 07/09/2024 | ND              | 2.24 | 112        | 2.00          | 3.58 |           |
| Total Xylenes* | <0.150 | 0.150           | 07/09/2024 | ND              | 6.87 | 115        | 6.00          | 2.66 |           |
| Total BTX      | <0.300 | 0.300           | 07/09/2024 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: CT |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 960    | 16.0            | 07/09/2024 | 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            | 07/09/2024 | ND              | 94.3 | 94.3       | 100           | 0.663 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/09/2024 | ND              | 91.0 | 91.0       | 100           | 0.652 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/09/2024 | ND              |      |            |               |       |           |

Surrogate: 1-Chlorooctane 99.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2024  
 Reported: 07/10/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/02/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: PH 01 1 (H244000-02)**

| 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           | 07/09/2024 | ND              | 2.01 | 100        | 2.00          | 1.50  | QM-07, QR-03 |
| Toluene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.00 | 99.9       | 2.00          | 0.540 | QM-07, QR-03 |
| Ethylbenzene*  | <0.050 | 0.050           | 07/09/2024 | ND              | 2.03 | 101        | 2.00          | 0.146 | QM-07, QR-03 |
| Total Xylenes* | <0.150 | 0.150           | 07/09/2024 | ND              | 6.00 | 100        | 6.00          | 0.162 | QM-07, QR-03 |
| Total BTX      | <0.300 | 0.300           | 07/09/2024 | ND              |      |            |               |       |              |

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

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: CT |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 512    | 16.0            | 07/09/2024 | 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            | 07/09/2024 | ND              | 94.3 | 94.3       | 100           | 0.663 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/09/2024 | ND              | 91.0 | 91.0       | 100           | 0.652 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/09/2024 | ND              |      |            |               |       |           |

Surrogate: 1-Chlorooctane 95.8 % 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  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2024  
 Reported: 07/10/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/02/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: PH 01 2 (H244000-03)**

| 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           | 07/09/2024 | ND              | 2.01 | 100        | 2.00          | 1.50  |           |  |
| Toluene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.00 | 99.9       | 2.00          | 0.540 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/09/2024 | ND              | 2.03 | 101        | 2.00          | 0.146 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/09/2024 | ND              | 6.00 | 100        | 6.00          | 0.162 |           |  |
| Total BTEX     | <0.300 | 0.300           | 07/09/2024 | ND              |      |            |               |       |           |  |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: CT |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 1620   | 16.0            | 07/09/2024 | 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            | 07/09/2024 | ND              | 94.3 | 94.3       | 100           | 0.663 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/09/2024 | ND              | 91.0 | 91.0       | 100           | 0.652 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/09/2024 | ND              |      |            |               |       |           |

Surrogate: 1-Chlorooctane 89.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.3 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2024  
 Reported: 07/10/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/02/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: PH 02 0.5 (H244000-04)**

| 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           | 07/09/2024 | ND              | 2.01 | 100        | 2.00          | 1.50  |           |  |
| Toluene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.00 | 99.9       | 2.00          | 0.540 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/09/2024 | ND              | 2.03 | 101        | 2.00          | 0.146 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/09/2024 | ND              | 6.00 | 100        | 6.00          | 0.162 |           |  |
| Total BTEx     | <0.300 | 0.300           | 07/09/2024 | ND              |      |            |               |       |           |  |

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

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: CT |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 368    | 16.0            | 07/09/2024 | 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            | 07/09/2024 | ND              | 94.3 | 94.3       | 100           | 0.663 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/09/2024 | ND              | 91.0 | 91.0       | 100           | 0.652 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/09/2024 | ND              |      |            |               |       |           |

Surrogate: 1-Chlorooctane 97.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.5 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2024  
 Reported: 07/10/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/02/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: PH 02 1 (H244000-05)**

| 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           | 07/09/2024 | ND              | 2.01 | 100        | 2.00          | 1.50  |           |  |
| Toluene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.00 | 99.9       | 2.00          | 0.540 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/09/2024 | ND              | 2.03 | 101        | 2.00          | 0.146 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/09/2024 | ND              | 6.00 | 100        | 6.00          | 0.162 |           |  |
| Total BTEX     | <0.300 | 0.300           | 07/09/2024 | ND              |      |            |               |       |           |  |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: CT |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 336    | 16.0            | 07/09/2024 | 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            | 07/09/2024 | ND              | 94.3 | 94.3       | 100           | 0.663 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/09/2024 | ND              | 91.0 | 91.0       | 100           | 0.652 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/09/2024 | ND              |      |            |               |       |           |

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.6 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2024  
 Reported: 07/10/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/02/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: PH 02 2 (H244000-06)**

| 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           | 07/09/2024 | ND              | 2.01 | 100        | 2.00          | 1.50  |           |  |
| Toluene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.00 | 99.9       | 2.00          | 0.540 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/09/2024 | ND              | 2.03 | 101        | 2.00          | 0.146 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/09/2024 | ND              | 6.00 | 100        | 6.00          | 0.162 |           |  |
| Total BTEx     | <0.300 | 0.300           | 07/09/2024 | ND              |      |            |               |       |           |  |

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

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: CT |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 448    | 16.0            | 07/09/2024 | 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            | 07/09/2024 | ND              | 94.3 | 94.3       | 100           | 0.663 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/09/2024 | ND              | 91.0 | 91.0       | 100           | 0.652 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/09/2024 | 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



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

**Analytical Results For:**

ENSOLUM, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2024  
 Reported: 07/10/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/02/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: PH 03 0.5 (H244000-07)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |       |           |  |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|--|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD   | Qualifier |  |
| Benzene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.01 | 100        | 2.00          | 1.50  |           |  |
| Toluene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.00 | 99.9       | 2.00          | 0.540 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/09/2024 | ND              | 2.03 | 101        | 2.00          | 0.146 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/09/2024 | ND              | 6.00 | 100        | 6.00          | 0.162 |           |  |
| Total BTEx     | <0.300 | 0.300           | 07/09/2024 | ND              |      |            |               |       |           |  |

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

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: CT |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 2840   | 16.0            | 07/09/2024 | 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            | 07/09/2024 | ND              | 94.3 | 94.3       | 100           | 0.663 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/09/2024 | ND              | 91.0 | 91.0       | 100           | 0.652 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/09/2024 | ND              |      |            |               |       |           |

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2024  
 Reported: 07/10/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/02/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: PH 03 1 (H244000-08)**

| 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           | 07/09/2024 | ND              | 2.01 | 100        | 2.00          | 1.50  |           |  |
| Toluene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.00 | 99.9       | 2.00          | 0.540 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/09/2024 | ND              | 2.03 | 101        | 2.00          | 0.146 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/09/2024 | ND              | 6.00 | 100        | 6.00          | 0.162 |           |  |
| Total BTEx     | <0.300 | 0.300           | 07/09/2024 | ND              |      |            |               |       |           |  |

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

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: CT |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 1500   | 16.0            | 07/09/2024 | 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            | 07/09/2024 | ND              | 94.3 | 94.3       | 100           | 0.663 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/09/2024 | ND              | 91.0 | 91.0       | 100           | 0.652 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/09/2024 | ND              |      |            |               |       |           |

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2024  
 Reported: 07/10/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/02/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: PH 03 2 (H244000-09)**

| 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           | 07/09/2024 | ND              | 2.01 | 100        | 2.00          | 1.50  |           |  |
| Toluene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.00 | 99.9       | 2.00          | 0.540 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/09/2024 | ND              | 2.03 | 101        | 2.00          | 0.146 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/09/2024 | ND              | 6.00 | 100        | 6.00          | 0.162 |           |  |
| Total BTEX     | <0.300 | 0.300           | 07/09/2024 | ND              |      |            |               |       |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 100 % 71.5-134

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: CT |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 928    | 16.0            | 07/09/2024 | 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            | 07/09/2024 | ND              | 94.3 | 94.3       | 100           | 0.663 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/09/2024 | ND              | 91.0 | 91.0       | 100           | 0.652 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/09/2024 | ND              |      |            |               |       |           |

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2024  
 Reported: 07/10/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/02/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: PH 04 0.5 (H244000-10)**

| 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           | 07/09/2024 | ND              | 2.01 | 100        | 2.00          | 1.50  |           |  |
| Toluene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.00 | 99.9       | 2.00          | 0.540 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/09/2024 | ND              | 2.03 | 101        | 2.00          | 0.146 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/09/2024 | ND              | 6.00 | 100        | 6.00          | 0.162 |           |  |
| Total BTEX     | <0.300 | 0.300           | 07/09/2024 | ND              |      |            |               |       |           |  |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: CT |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 48.0   | 16.0            | 07/09/2024 | 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            | 07/09/2024 | ND              | 94.3 | 94.3       | 100           | 0.663 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/09/2024 | ND              | 91.0 | 91.0       | 100           | 0.652 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/09/2024 | ND              |      |            |               |       |           |

Surrogate: 1-Chlorooctane 98.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2024  
 Reported: 07/10/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/02/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: PH 04 2 (H244000-11)**

| 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           | 07/09/2024 | ND              | 2.01 | 100        | 2.00          | 1.50  |           |  |
| Toluene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.00 | 99.9       | 2.00          | 0.540 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/09/2024 | ND              | 2.03 | 101        | 2.00          | 0.146 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/09/2024 | ND              | 6.00 | 100        | 6.00          | 0.162 |           |  |
| Total BTEX     | <0.300 | 0.300           | 07/09/2024 | ND              |      |            |               |       |           |  |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: CT |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 48.0   | 16.0            | 07/09/2024 | 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            | 07/09/2024 | ND              | 94.3 | 94.3       | 100           | 0.663 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/09/2024 | ND              | 91.0 | 91.0       | 100           | 0.652 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/09/2024 | ND              |      |            |               |       |           |

Surrogate: 1-Chlorooctane 90.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.5 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2024  
 Reported: 07/10/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/02/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: PH 04 4 (H244000-12)**

| 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           | 07/09/2024 | ND              | 2.01 | 100        | 2.00          | 1.50  |           |  |
| Toluene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.00 | 99.9       | 2.00          | 0.540 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/09/2024 | ND              | 2.03 | 101        | 2.00          | 0.146 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/09/2024 | ND              | 6.00 | 100        | 6.00          | 0.162 |           |  |
| Total BTEx     | <0.300 | 0.300           | 07/09/2024 | ND              |      |            |               |       |           |  |

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

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: CT |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 96.0   | 16.0            | 07/09/2024 | 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            | 07/09/2024 | ND              | 94.3 | 94.3       | 100           | 0.663 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/09/2024 | ND              | 91.0 | 91.0       | 100           | 0.652 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/09/2024 | ND              |      |            |               |       |           |

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2024  
 Reported: 07/10/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/02/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: PH 05 0.5 (H244000-13)**

| 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           | 07/09/2024 | ND              | 2.01 | 100        | 2.00          | 1.50  |           |  |
| Toluene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.00 | 99.9       | 2.00          | 0.540 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/09/2024 | ND              | 2.03 | 101        | 2.00          | 0.146 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/09/2024 | ND              | 6.00 | 100        | 6.00          | 0.162 |           |  |
| Total BTEx     | <0.300 | 0.300           | 07/09/2024 | ND              |      |            |               |       |           |  |

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

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: CT |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 80.0   | 16.0            | 07/09/2024 | 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            | 07/09/2024 | ND              | 94.3 | 94.3       | 100           | 0.663 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/09/2024 | ND              | 91.0 | 91.0       | 100           | 0.652 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/09/2024 | ND              |      |            |               |       |           |

Surrogate: 1-Chlorooctane 101 % 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  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2024  
 Reported: 07/10/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/02/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: PH 05 3 (H244000-14)**

| 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           | 07/09/2024 | ND              | 2.01 | 100        | 2.00          | 1.50  |           |  |
| Toluene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.00 | 99.9       | 2.00          | 0.540 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/09/2024 | ND              | 2.03 | 101        | 2.00          | 0.146 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/09/2024 | ND              | 6.00 | 100        | 6.00          | 0.162 |           |  |
| Total BTEx     | <0.300 | 0.300           | 07/09/2024 | ND              |      |            |               |       |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 71.5-134

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: CT |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 176    | 16.0            | 07/09/2024 | 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            | 07/09/2024 | ND              | 94.3 | 94.3       | 100           | 0.663 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/09/2024 | ND              | 91.0 | 91.0       | 100           | 0.652 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/09/2024 | ND              |      |            |               |       |           |

Surrogate: 1-Chlorooctane 102 % 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  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2024  
 Reported: 07/10/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/02/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: PH 05 4 (H244000-15)**

| 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           | 07/09/2024 | ND              | 2.01 | 100        | 2.00          | 1.50  |           |  |
| Toluene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.00 | 99.9       | 2.00          | 0.540 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/09/2024 | ND              | 2.03 | 101        | 2.00          | 0.146 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/09/2024 | ND              | 6.00 | 100        | 6.00          | 0.162 |           |  |
| Total BTEX     | <0.300 | 0.300           | 07/09/2024 | ND              |      |            |               |       |           |  |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: CT |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 192    | 16.0            | 07/09/2024 | 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            | 07/09/2024 | ND              | 94.3 | 94.3       | 100           | 0.663 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/09/2024 | ND              | 91.0 | 91.0       | 100           | 0.652 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/09/2024 | ND              |      |            |               |       |           |

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2024  
 Reported: 07/10/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/02/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: PH 06 1 (H244000-16)**

| 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           | 07/09/2024 | ND              | 2.01 | 100        | 2.00          | 1.50  |           |  |
| Toluene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.00 | 99.9       | 2.00          | 0.540 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/09/2024 | ND              | 2.03 | 101        | 2.00          | 0.146 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/09/2024 | ND              | 6.00 | 100        | 6.00          | 0.162 |           |  |
| Total BTEX     | <0.300 | 0.300           | 07/09/2024 | ND              |      |            |               |       |           |  |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: CT |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 1500   | 16.0            | 07/09/2024 | 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            | 07/09/2024 | ND              | 94.3 | 94.3       | 100           | 0.663 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/09/2024 | ND              | 91.0 | 91.0       | 100           | 0.652 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/09/2024 | ND              |      |            |               |       |           |

Surrogate: 1-Chlorooctane 99.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2024  
 Reported: 07/10/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/02/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: PH 06 3 (H244000-17)**

| 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           | 07/09/2024 | ND              | 2.01 | 100        | 2.00          | 1.50  |           |  |
| Toluene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.00 | 99.9       | 2.00          | 0.540 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/09/2024 | ND              | 2.03 | 101        | 2.00          | 0.146 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/09/2024 | ND              | 6.00 | 100        | 6.00          | 0.162 |           |  |
| Total BTEX     | <0.300 | 0.300           | 07/09/2024 | ND              |      |            |               |       |           |  |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: CT |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 816    | 16.0            | 07/09/2024 | 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            | 07/09/2024 | ND              | 94.3 | 94.3       | 100           | 0.663 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/09/2024 | ND              | 91.0 | 91.0       | 100           | 0.652 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/09/2024 | ND              |      |            |               |       |           |

Surrogate: 1-Chlorooctane 92.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.1 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2024  
 Reported: 07/10/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/02/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: PH 06 4 (H244000-18)**

| 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           | 07/09/2024 | ND              | 2.01 | 100        | 2.00          | 1.50  |           |  |
| Toluene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.00 | 99.9       | 2.00          | 0.540 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/09/2024 | ND              | 2.03 | 101        | 2.00          | 0.146 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/09/2024 | ND              | 6.00 | 100        | 6.00          | 0.162 |           |  |
| Total BTEx     | <0.300 | 0.300           | 07/09/2024 | ND              |      |            |               |       |           |  |

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

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: AC |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 1060   | 16.0            | 07/09/2024 | ND              | 400 | 100        | 400           | 7.69 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |      |            |               |       |           |
|------------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 07/09/2024 | ND              | 95.7 | 95.7       | 100           | 0.272 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/09/2024 | ND              | 91.8 | 91.8       | 100           | 0.490 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/09/2024 | ND              |      |            |               |       |           |

Surrogate: 1-Chlorooctane 91.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2024  
 Reported: 07/10/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/02/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: PH 07 0.5 (H244000-19)**

| 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           | 07/09/2024 | ND              | 2.01 | 100        | 2.00          | 1.50  |           |
| Toluene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.00 | 99.9       | 2.00          | 0.540 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 07/09/2024 | ND              | 2.03 | 101        | 2.00          | 0.146 |           |
| Total Xylenes* | <0.150 | 0.150           | 07/09/2024 | ND              | 6.00 | 100        | 6.00          | 0.162 |           |
| Total BTEX     | <0.300 | 0.300           | 07/09/2024 | ND              |      |            |               |       |           |

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 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            | 07/09/2024 | ND              | 400 | 100        | 400           | 7.69 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |      |            |               |       |           |
|------------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 07/09/2024 | ND              | 95.7 | 95.7       | 100           | 0.272 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/09/2024 | ND              | 91.8 | 91.8       | 100           | 0.490 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/09/2024 | ND              |      |            |               |       |           |

Surrogate: 1-Chlorooctane 91.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.0 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2024  
 Reported: 07/10/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/02/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: PH 07 1 (H244000-20)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |       |           |  |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|--|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD   | Qualifier |  |
| Benzene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.01 | 100        | 2.00          | 1.50  |           |  |
| Toluene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.00 | 99.9       | 2.00          | 0.540 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/09/2024 | ND              | 2.03 | 101        | 2.00          | 0.146 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/09/2024 | ND              | 6.00 | 100        | 6.00          | 0.162 |           |  |
| Total BTEX     | <0.300 | 0.300           | 07/09/2024 | 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             | 32.0   | 16.0            | 07/09/2024 | ND              | 400 | 100        | 400           | 7.69 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |      |            |               |       |           |
|------------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 07/09/2024 | ND              | 95.7 | 95.7       | 100           | 0.272 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/09/2024 | ND              | 91.8 | 91.8       | 100           | 0.490 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/09/2024 | ND              |      |            |               |       |           |

Surrogate: 1-Chlorooctane 88.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 HADLIE GREEN  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 07/03/2024  
 Reported: 07/10/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/02/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: PH 07 4 (H244000-21)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |       |           |  |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|--|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD   | Qualifier |  |
| Benzene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.01 | 100        | 2.00          | 1.50  |           |  |
| Toluene*       | <0.050 | 0.050           | 07/09/2024 | ND              | 2.00 | 99.9       | 2.00          | 0.540 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/09/2024 | ND              | 2.03 | 101        | 2.00          | 0.146 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/09/2024 | ND              | 6.00 | 100        | 6.00          | 0.162 |           |  |
| Total BTEX     | <0.300 | 0.300           | 07/09/2024 | 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            | 07/09/2024 | ND              | 400 | 100        | 400           | 7.69 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |      |            |               |       |           |
|------------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 07/09/2024 | ND              | 95.7 | 95.7       | 100           | 0.272 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/09/2024 | ND              | 91.8 | 91.8       | 100           | 0.490 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/09/2024 | ND              |      |            |               |       |           |

Surrogate: 1-Chlorooctane 68.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 60.4 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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

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

 $10 \times 3$ 

† Cardinal cannot accept verbal changes. Please email changes to [celey.keene@cardinallabsnm.com](mailto:celey.keene@cardinallabsnm.com)





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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

|  |  |  |  |  |  |   |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |
|--|--|--|--|--|--|---|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|
| Company Name: Ensolum, LLC   |  |  |  |  |  | <b>BILL TO</b>  |  |  |  |  |  |  |  | ANALYSIS REQUEST  |  |  |  |  |  |  |  |
| Project Manager: <u>Hadi Geyer</u>   |  |  |  |  |  | P.O. #:   |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |
| Address: 601 N Marientfeld Street, Suite 400   |  |  |  |  |  | ATTN: Wade D. Williams  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |
| City: Midland  |  |  |  |  |  | State: TX Zip: 79701  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |
| Phone #: 432-557-8845  |  |  |  |  |  | Fax #:  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |
| Project #: 037147148   |  |  |  |  |  | Project Owner:  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |
| Project Name: <u>Pand Pines Fed 28 # SWD</u>   |  |  |  |  |  | City:   |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |
| Project Location: <u>Fed County, NM</u>  |  |  |  |  |  | State: Zip:   |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |
| Sample Name: NKD   |  |  |  |  |  | Phone #:  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |
| FOR LAB USE ONLY   |  |  |  |  |  | Fax #:  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |
| Lab I.D.   |  |  |  |  |  | Sample I.D.   |  |  |  |  |  |  |  | Depth (feet)  |  |  |  |  |  |  |  |
| (G)RAB OR (C)OMP.  |  |  |  |  |  | # CONTAINERS  |  |  |  |  |  |  |  | MATRIX  |  |  |  |  |  |  |  |
| GROUNDWATER  |  |  |  |  |  | WASTEWATER  |  |  |  |  |  |  |  | SOIL  |  |  |  |  |  |  |  |
| OIL  |  |  |  |  |  | SLUDGE  |  |  |  |  |  |  |  | OTHER :   |  |  |  |  |  |  |  |
| ACID/BASE:   |  |  |  |  |  | ICE / COOL  |  |  |  |  |  |  |  | OTHER :   |  |  |  |  |  |  |  |
| DATE   |  |  |  |  |  | TIME  |  |  |  |  |  |  |  | BTX   |  |  |  |  |  |  |  |
| TPH  |  |  |  |  |  | Chlorides 4500  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |
| 11   |  |  |  |  |  | PH04  |  |  |  |  |  |  |  | 2   |  |  |  |  |  |  |  |
| 12   |  |  |  |  |  | PH04  |  |  |  |  |  |  |  | 0.5   |  |  |  |  |  |  |  |
| 13   |  |  |  |  |  | PH05  |  |  |  |  |  |  |  | 3   |  |  |  |  |  |  |  |
| 14   |  |  |  |  |  | PH05  |  |  |  |  |  |  |  | 4   |  |  |  |  |  |  |  |
| 15   |  |  |  |  |  | PH06  |  |  |  |  |  |  |  | 3   |  |  |  |  |  |  |  |
| 16   |  |  |  |  |  | PH06  |  |  |  |  |  |  |  | 1   |  |  |  |  |  |  |  |
| 17   |  |  |  |  |  | PH06  |  |  |  |  |  |  |  | 3   |  |  |  |  |  |  |  |
| 18   |  |  |  |  |  | PH06  |  |  |  |  |  |  |  | 4   |  |  |  |  |  |  |  |
| 19   |  |  |  |  |  | PH07  |  |  |  |  |  |  |  | 0.5   |  |  |  |  |  |  |  |
| 20   |  |  |  |  |  | PH07  |  |  |  |  |  |  |  | 1   |  |  |  |  |  |  |  |
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| Relinquished By: <u>Molly Burt</u>   |  |  |  |  |  | Time: <u>0957</u>   |  |  |  |  |  |  |  | Received By: <u>[Signature]</u>   |  |  |  |  |  |  |  |
| Relinquished By:   |  |  |  |  |  | Date:   |  |  |  |  |  |  |  | Time:   |  |  |  |  |  |  |  |
| Delivered By: (Circle One)   |  |  |  |  |  | Observed Temp.: <u>2.4°C</u>  |  |  |  |  |  |  |  | Corrected Temp.: <u>C</u>   |  |  |  |  |  |  |  |
| Sample - UPS - Bus - Other:  |  |  |  |  |  | Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |  |  |  |  |  |  |  | CHECKED BY: <u>[Signature]</u> (Initials)   |  |  |  |  |  |  |  |
| Thermometer ID: <u>#140</u>  |  |  |  |  |  | Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>      |  |  |  |  |  |  |  | Bacteria (only) Sample Condition Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No |  |  |  |  |  |  |  |
| Correction Factor: <u>-0.5°C</u>   |  |  |  |  |  | Turnaround Time: <u>AP 7:03-24 10:24</u>  |  |  |  |  |  |  |  | Observed Temp.: <u>C</u>  |  |  |  |  |  |  |  |
| REMARKS: Samples 14, 15, 19, 20 are under tested to provide green swacha to SHU run samples  |  |  |  |  |  |   |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |





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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



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

---

August 01, 2024

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

RE: SAND DUNES FED 28 #1 SWD

Enclosed are the results of analyses for samples received by the laboratory on 07/29/24 16:31.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene  
Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 07/29/2024  
 Reported: 08/01/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/29/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FS 01 4 (H244505-01)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |      |           |  |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|--|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |  |
| Benzene*       | <0.050 | 0.050           | 07/30/2024 | ND              | 1.92 | 96.0       | 2.00          | 6.92 |           |  |
| Toluene*       | <0.050 | 0.050           | 07/30/2024 | ND              | 2.02 | 101        | 2.00          | 6.41 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/30/2024 | ND              | 2.10 | 105        | 2.00          | 6.15 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/30/2024 | ND              | 6.46 | 108        | 6.00          | 5.87 |           |  |
| Total BTEx     | <0.300 | 0.300           | 07/30/2024 | ND              |      |            |               |      |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 96.0   | 16.0            | 07/30/2024 | ND              | 448 | 112        | 400           | 3.51 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 07/30/2024 | ND              | 189 | 94.5       | 200           | 3.63 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/30/2024 | ND              | 178 | 88.9       | 200           | 7.58 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/30/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 134 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 07/29/2024  
 Reported: 08/01/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/29/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: FS 02 4 (H244505-02)**

| 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           | 07/30/2024 | ND              | 1.92 | 96.0       | 2.00          | 6.92 |           |  |
| Toluene*       | <0.050 | 0.050           | 07/30/2024 | ND              | 2.02 | 101        | 2.00          | 6.41 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/30/2024 | ND              | 2.10 | 105        | 2.00          | 6.15 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/30/2024 | ND              | 6.46 | 108        | 6.00          | 5.87 |           |  |
| Total BTEX     | <0.300 | 0.300           | 07/30/2024 | ND              |      |            |               |      |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 224    | 16.0            | 07/30/2024 | ND              | 448 | 112        | 400           | 3.51 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |       |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 07/30/2024 | ND              | 204 | 102        | 200           | 4.71  |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/30/2024 | ND              | 195 | 97.3       | 200           | 0.823 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/30/2024 | ND              |     |            |               |       |           |

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

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

Received: 07/29/2024  
 Reported: 08/01/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/29/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 01 0-4 (H244505-03)**

| 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           | 07/30/2024 | ND              | 1.92 | 96.0       | 2.00          | 6.92 |           |  |
| Toluene*       | <0.050 | 0.050           | 07/30/2024 | ND              | 2.02 | 101        | 2.00          | 6.41 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/30/2024 | ND              | 2.10 | 105        | 2.00          | 6.15 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/30/2024 | ND              | 6.46 | 108        | 6.00          | 5.87 |           |  |
| Total BTEx     | <0.300 | 0.300           | 07/30/2024 | ND              |      |            |               |      |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 160    | 16.0            | 07/30/2024 | ND              | 448 | 112        | 400           | 3.51 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |       |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 07/30/2024 | ND              | 204 | 102        | 200           | 4.71  |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/30/2024 | ND              | 195 | 97.3       | 200           | 0.823 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/30/2024 | ND              |     |            |               |       |           |

Surrogate: 1-Chlorooctane 108 % 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: 07/29/2024  
 Reported: 08/01/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417198  
 Project Location: EDDY COUNTY, NM

Sampling Date: 07/29/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: SW 02 0-4 (H244505-04)**

| 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           | 07/30/2024 | ND              | 1.92 | 96.0       | 2.00          | 6.92 |           |  |
| Toluene*       | <0.050 | 0.050           | 07/30/2024 | ND              | 2.02 | 101        | 2.00          | 6.41 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 07/30/2024 | ND              | 2.10 | 105        | 2.00          | 6.15 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 07/30/2024 | ND              | 6.46 | 108        | 6.00          | 5.87 |           |  |
| Total BTX      | <0.300 | 0.300           | 07/30/2024 | ND              |      |            |               |      |           |  |

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

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 528    | 16.0            | 07/30/2024 | ND              | 448 | 112        | 400           | 3.51 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |       |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 07/30/2024 | ND              | 204 | 102        | 200           | 4.71  |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 07/30/2024 | ND              | 195 | 97.3       | 200           | 0.823 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 07/30/2024 | ND              |     |            |               |       |           |

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

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

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

---

Celey D. Keene, Lab Director/Quality Manager



### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

[illegible]



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

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October 11, 2024

SAMANTHA MACKENZIE

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: SAND DUNES FED 28 #1 SWD

Enclosed are the results of analyses for samples received by the laboratory on 10/07/24 13:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/07/2024  
 Reported: 10/11/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 10/07/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: CS 01 0.25 (H246080-01)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |      |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 10/07/2024 | ND              | 2.05 | 102        | 2.00          | 2.15 |           |
| Toluene*       | <0.050 | 0.050           | 10/07/2024 | ND              | 2.06 | 103        | 2.00          | 2.04 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 10/07/2024 | ND              | 2.12 | 106        | 2.00          | 2.98 |           |
| Total Xylenes* | <0.150 | 0.150           | 10/07/2024 | ND              | 6.22 | 104        | 6.00          | 3.48 |           |
| Total BTEX     | <0.300 | 0.300           | 10/07/2024 | ND              |      |            |               |      |           |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: KV |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 8320   | 16.0            | 10/07/2024 | ND              | 400 | 100        | 400           | 3.92 |           |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 10/07/2024 | ND              | 211 | 106        | 200           | 1.34 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 10/07/2024 | ND              | 205 | 103        | 200           | 1.52 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 10/07/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 69.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 66.3 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/07/2024  
 Reported: 10/11/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 10/07/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: CS 02 0.25 (H246080-02)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |      |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 10/07/2024 | ND              | 2.05 | 102        | 2.00          | 2.15 |           |
| Toluene*       | <0.050 | 0.050           | 10/07/2024 | ND              | 2.06 | 103        | 2.00          | 2.04 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 10/07/2024 | ND              | 2.12 | 106        | 2.00          | 2.98 |           |
| Total Xylenes* | <0.150 | 0.150           | 10/07/2024 | ND              | 6.22 | 104        | 6.00          | 3.48 |           |
| Total BTEX     | <0.300 | 0.300           | 10/07/2024 | ND              |      |            |               |      |           |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: KV |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 3600   | 16.0            | 10/07/2024 | ND              | 400 | 100        | 400           | 3.92 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 10/07/2024 | ND              | 211 | 106        | 200           | 1.34 |           |
| DRO >C10-C28*    | 17.7   | 10.0            | 10/07/2024 | ND              | 205 | 103        | 200           | 1.52 |           |
| EXT DRO >C28-C36 | 17.3   | 10.0            | 10/07/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 96.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.9 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/07/2024  
 Reported: 10/11/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 10/07/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: CS 03 0.25 (H246080-03)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |      |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 10/07/2024 | ND              | 2.05 | 102        | 2.00          | 2.15 |           |
| Toluene*       | <0.050 | 0.050           | 10/07/2024 | ND              | 2.06 | 103        | 2.00          | 2.04 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 10/07/2024 | ND              | 2.12 | 106        | 2.00          | 2.98 |           |
| Total Xylenes* | <0.150 | 0.150           | 10/07/2024 | ND              | 6.22 | 104        | 6.00          | 3.48 |           |
| Total BTEx     | <0.300 | 0.300           | 10/07/2024 | ND              |      |            |               |      |           |

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

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: KV |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 2360   | 16.0            | 10/07/2024 | ND              | 400 | 100        | 400           | 3.92 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 10/07/2024 | ND              | 211 | 106        | 200           | 1.34 |           |
| DRO >C10-C28*    | 62.8   | 10.0            | 10/07/2024 | ND              | 205 | 103        | 200           | 1.52 |           |
| EXT DRO >C28-C36 | 57.0   | 10.0            | 10/07/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 91.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.8 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/07/2024  
 Reported: 10/11/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 10/07/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: CS 04 0.25 (H246080-04)**

| BTEX 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |      |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 10/07/2024 | ND              | 2.05 | 102        | 2.00          | 2.15 |           |
| Toluene*       | <0.050 | 0.050           | 10/07/2024 | ND              | 2.06 | 103        | 2.00          | 2.04 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 10/07/2024 | ND              | 2.12 | 106        | 2.00          | 2.98 |           |
| Total Xylenes* | <0.150 | 0.150           | 10/07/2024 | ND              | 6.22 | 104        | 6.00          | 3.48 |           |
| Total BTEX     | <0.300 | 0.300           | 10/07/2024 | ND              |      |            |               |      |           |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: KV |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 3320   | 16.0            | 10/07/2024 | ND              | 400 | 100        | 400           | 3.92 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 10/07/2024 | ND              | 211 | 106        | 200           | 1.34 |           |
| DRO >C10-C28*    | 1660   | 10.0            | 10/07/2024 | ND              | 205 | 103        | 200           | 1.52 |           |
| EXT DRO >C28-C36 | 989    | 10.0            | 10/07/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 95.2 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/07/2024  
 Reported: 10/11/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 10/07/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: CS 05 0.25 (H246080-05)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |      |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 10/07/2024 | ND              | 2.05 | 102        | 2.00          | 2.15 |           |
| Toluene*       | <0.050 | 0.050           | 10/07/2024 | ND              | 2.06 | 103        | 2.00          | 2.04 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 10/07/2024 | ND              | 2.12 | 106        | 2.00          | 2.98 |           |
| Total Xylenes* | <0.150 | 0.150           | 10/07/2024 | ND              | 6.22 | 104        | 6.00          | 3.48 |           |
| Total BTEX     | <0.300 | 0.300           | 10/07/2024 | ND              |      |            |               |      |           |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: KV |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 4560   | 16.0            | 10/07/2024 | ND              | 400 | 100        | 400           | 3.92 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 10/07/2024 | ND              | 211 | 106        | 200           | 1.34 |           |
| DRO >C10-C28*    | 251    | 10.0            | 10/07/2024 | ND              | 205 | 103        | 200           | 1.52 |           |
| EXT DRO >C28-C36 | 147    | 10.0            | 10/07/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 90.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.6 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/07/2024  
 Reported: 10/11/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 10/07/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: CS 06 0.25 (H246080-06)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |        |           |  |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|--|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD    | Qualifier |  |
| Benzene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.15 | 108        | 2.00          | 0.419  |           |  |
| Toluene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.07 | 103        | 2.00          | 0.0860 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 10/08/2024 | ND              | 2.09 | 105        | 2.00          | 0.0121 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 10/08/2024 | ND              | 6.25 | 104        | 6.00          | 0.119  |           |  |
| Total BTEX     | <0.300 | 0.300           | 10/08/2024 | ND              |      |            |               |        |           |  |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: KV |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 5600   | 16.0            | 10/07/2024 | ND              | 400 | 100        | 400           | 3.92 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 10/07/2024 | ND              | 211 | 106        | 200           | 1.34 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 10/07/2024 | ND              | 205 | 103        | 200           | 1.52 |           |
| EXT DRO >C28-C36 | 12.5   | 10.0            | 10/07/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 91.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.4 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/07/2024  
 Reported: 10/11/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 10/07/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: CS 07 0.25 (H246080-07)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |        |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD    | Qualifier |
| Benzene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.15 | 108        | 2.00          | 0.419  |           |
| Toluene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.07 | 103        | 2.00          | 0.0860 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 10/08/2024 | ND              | 2.09 | 105        | 2.00          | 0.0121 |           |
| Total Xylenes* | <0.150 | 0.150           | 10/08/2024 | ND              | 6.25 | 104        | 6.00          | 0.119  |           |
| Total BTEX     | <0.300 | 0.300           | 10/08/2024 | ND              |      |            |               |        |           |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: KV |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 1630   | 16.0            | 10/07/2024 | ND              | 400 | 100        | 400           | 3.92 |           |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 10/07/2024 | ND              | 211 | 106        | 200           | 1.34 |           |
| DRO >C10-C28*    | 346    | 10.0            | 10/07/2024 | ND              | 205 | 103        | 200           | 1.52 |           |
| EXT DRO >C28-C36 | 157    | 10.0            | 10/07/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.5 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/07/2024  
 Reported: 10/11/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 10/07/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: CS 08 0.25 (H246080-08)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |        |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD    | Qualifier |
| Benzene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.15 | 108        | 2.00          | 0.419  |           |
| Toluene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.07 | 103        | 2.00          | 0.0860 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 10/08/2024 | ND              | 2.09 | 105        | 2.00          | 0.0121 |           |
| Total Xylenes* | <0.150 | 0.150           | 10/08/2024 | ND              | 6.25 | 104        | 6.00          | 0.119  |           |
| Total BTEX     | <0.300 | 0.300           | 10/08/2024 | ND              |      |            |               |        |           |

Surrogate: 4-Bromofluorobenzene (PID) 100 % 71.5-134

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: KV |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 1840   | 16.0            | 10/07/2024 | ND              | 400 | 100        | 400           | 3.92 |           |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 10/07/2024 | ND              | 211 | 106        | 200           | 1.34 |           |
| DRO >C10-C28*    | 5170   | 10.0            | 10/07/2024 | ND              | 205 | 103        | 200           | 1.52 |           |
| EXT DRO >C28-C36 | 2240   | 10.0            | 10/07/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 84.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 146 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/07/2024  
 Reported: 10/11/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 10/07/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: CS 09 0.25 (H246080-09)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |        |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD    | Qualifier |
| Benzene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.15 | 108        | 2.00          | 0.419  |           |
| Toluene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.07 | 103        | 2.00          | 0.0860 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 10/08/2024 | ND              | 2.09 | 105        | 2.00          | 0.0121 |           |
| Total Xylenes* | <0.150 | 0.150           | 10/08/2024 | ND              | 6.25 | 104        | 6.00          | 0.119  |           |
| Total BTEX     | <0.300 | 0.300           | 10/08/2024 | ND              |      |            |               |        |           |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: KV |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 224    | 16.0            | 10/07/2024 | ND              | 400 | 100        | 400           | 3.92 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 10/07/2024 | ND              | 211 | 106        | 200           | 1.34 |           |
| DRO >C10-C28*    | 12.4   | 10.0            | 10/07/2024 | ND              | 205 | 103        | 200           | 1.52 |           |
| EXT DRO >C28-C36 | 16.7   | 10.0            | 10/07/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.6 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/07/2024  
 Reported: 10/11/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 10/07/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: CS 10 0.25 (H246080-10)**

| BTEX 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |        |           |  |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|--|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD    | Qualifier |  |
| Benzene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.15 | 108        | 2.00          | 0.419  |           |  |
| Toluene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.07 | 103        | 2.00          | 0.0860 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 10/08/2024 | ND              | 2.09 | 105        | 2.00          | 0.0121 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 10/08/2024 | ND              | 6.25 | 104        | 6.00          | 0.119  |           |  |
| Total BTEX     | <0.300 | 0.300           | 10/08/2024 | ND              |      |            |               |        |           |  |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: KV |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 3080   | 16.0            | 10/07/2024 | ND              | 400 | 100        | 400           | 3.92 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 10/07/2024 | ND              | 211 | 106        | 200           | 1.34 |           |
| DRO >C10-C28*    | 47.3   | 10.0            | 10/07/2024 | ND              | 205 | 103        | 200           | 1.52 |           |
| EXT DRO >C28-C36 | 34.6   | 10.0            | 10/07/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/07/2024  
 Reported: 10/11/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 10/07/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: CS 11 0.25 (H246080-11)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |        |           |  |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|--|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD    | Qualifier |  |
| Benzene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.15 | 108        | 2.00          | 0.419  |           |  |
| Toluene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.07 | 103        | 2.00          | 0.0860 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 10/08/2024 | ND              | 2.09 | 105        | 2.00          | 0.0121 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 10/08/2024 | ND              | 6.25 | 104        | 6.00          | 0.119  |           |  |
| Total BTEX     | <0.300 | 0.300           | 10/08/2024 | ND              |      |            |               |        |           |  |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: KV |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 2000   | 16.0            | 10/07/2024 | ND              | 400 | 100        | 400           | 3.92 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 10/07/2024 | ND              | 211 | 106        | 200           | 1.34 |           |
| DRO >C10-C28*    | 1750   | 10.0            | 10/07/2024 | ND              | 205 | 103        | 200           | 1.52 |           |
| EXT DRO >C28-C36 | 919    | 10.0            | 10/07/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 84.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/07/2024  
 Reported: 10/11/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 10/07/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: CS 12 0.25 (H246080-12)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |        |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD    | Qualifier |
| Benzene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.15 | 108        | 2.00          | 0.419  |           |
| Toluene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.07 | 103        | 2.00          | 0.0860 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 10/08/2024 | ND              | 2.09 | 105        | 2.00          | 0.0121 |           |
| Total Xylenes* | <0.150 | 0.150           | 10/08/2024 | ND              | 6.25 | 104        | 6.00          | 0.119  |           |
| Total BTEX     | <0.300 | 0.300           | 10/08/2024 | ND              |      |            |               |        |           |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: KV |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 3200   | 16.0            | 10/07/2024 | ND              | 400 | 100        | 400           | 3.92 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 10/08/2024 | ND              | 211 | 106        | 200           | 1.34 |           |
| DRO >C10-C28*    | 3790   | 10.0            | 10/08/2024 | ND              | 205 | 103        | 200           | 1.52 |           |
| EXT DRO >C28-C36 | 1590   | 10.0            | 10/08/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 125 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/07/2024  
 Reported: 10/11/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 10/07/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: CS 13 0.25 (H246080-13)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |        |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD    | Qualifier |
| Benzene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.15 | 108        | 2.00          | 0.419  |           |
| Toluene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.07 | 103        | 2.00          | 0.0860 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 10/08/2024 | ND              | 2.09 | 105        | 2.00          | 0.0121 |           |
| Total Xylenes* | <0.150 | 0.150           | 10/08/2024 | ND              | 6.25 | 104        | 6.00          | 0.119  |           |
| Total BTEX     | <0.300 | 0.300           | 10/08/2024 | ND              |      |            |               |        |           |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: KV |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 224    | 16.0            | 10/07/2024 | ND              | 400 | 100        | 400           | 3.92 |           |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |       |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 10/08/2024 | ND              | 188 | 94.0       | 200           | 0.679 |           |
| DRO >C10-C28*    | 11.2   | 10.0            | 10/08/2024 | ND              | 175 | 87.5       | 200           | 3.74  |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 10/08/2024 | ND              |     |            |               |       |           |

Surrogate: 1-Chlorooctane 90.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.0 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/07/2024  
 Reported: 10/11/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 10/07/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: CS 14 0.25 (H246080-14)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |        |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD    | Qualifier |
| Benzene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.15 | 108        | 2.00          | 0.419  |           |
| Toluene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.07 | 103        | 2.00          | 0.0860 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 10/08/2024 | ND              | 2.09 | 105        | 2.00          | 0.0121 |           |
| Total Xylenes* | <0.150 | 0.150           | 10/08/2024 | ND              | 6.25 | 104        | 6.00          | 0.119  |           |
| Total BTEX     | <0.300 | 0.300           | 10/08/2024 | ND              |      |            |               |        |           |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 6800   | 16.0            | 10/08/2024 | ND              | 400 | 100        | 400           | 11.3 | QM-07     |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |       |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 10/08/2024 | ND              | 188 | 94.0       | 200           | 0.679 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 10/08/2024 | ND              | 175 | 87.5       | 200           | 3.74  |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 10/08/2024 | ND              |     |            |               |       |           |

Surrogate: 1-Chlorooctane 94.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.3 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/07/2024  
 Reported: 10/11/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 10/07/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: CS 15 0.25 (H246080-15)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |        |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD    | Qualifier |
| Benzene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.15 | 108        | 2.00          | 0.419  |           |
| Toluene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.07 | 103        | 2.00          | 0.0860 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 10/08/2024 | ND              | 2.09 | 105        | 2.00          | 0.0121 |           |
| Total Xylenes* | <0.150 | 0.150           | 10/08/2024 | ND              | 6.25 | 104        | 6.00          | 0.119  |           |
| Total BTEx     | <0.300 | 0.300           | 10/08/2024 | ND              |      |            |               |        |           |

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

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 6960   | 16.0            | 10/08/2024 | ND              | 400 | 100        | 400           | 11.3 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |       |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 10/08/2024 | ND              | 188 | 94.0       | 200           | 0.679 |           |
| DRO >C10-C28*    | 153    | 10.0            | 10/08/2024 | ND              | 175 | 87.5       | 200           | 3.74  |           |
| EXT DRO >C28-C36 | 70.6   | 10.0            | 10/08/2024 | ND              |     |            |               |       |           |

Surrogate: 1-Chlorooctane 90.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.4 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/07/2024  
 Reported: 10/11/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 10/07/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: CS 16 0.25 (H246080-16)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |        |           |  |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|--|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD    | Qualifier |  |
| Benzene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.15 | 108        | 2.00          | 0.419  |           |  |
| Toluene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.07 | 103        | 2.00          | 0.0860 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 10/08/2024 | ND              | 2.09 | 105        | 2.00          | 0.0121 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 10/08/2024 | ND              | 6.25 | 104        | 6.00          | 0.119  |           |  |
| Total BTEX     | <0.300 | 0.300           | 10/08/2024 | ND              |      |            |               |        |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 71.5-134

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 5200   | 16.0            | 10/08/2024 | ND              | 400 | 100        | 400           | 11.3 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               | S-06  |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*      | <50.0  | 50.0            | 10/09/2024 | ND              | 188 | 94.0       | 200           | 0.679 |           |
| DRO >C10-C28*    | 6080   | 50.0            | 10/09/2024 | ND              | 175 | 87.5       | 200           | 3.74  |           |
| EXT DRO >C28-C36 | 2280   | 50.0            | 10/09/2024 | ND              |     |            |               |       |           |

Surrogate: 1-Chlorooctane 112 % 48.2-134

Surrogate: 1-Chlorooctadecane 236 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/07/2024  
 Reported: 10/11/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 10/07/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: CS 17 0.25 (H246080-17)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |        |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD    | Qualifier |
| Benzene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.15 | 108        | 2.00          | 0.419  |           |
| Toluene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.07 | 103        | 2.00          | 0.0860 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 10/08/2024 | ND              | 2.09 | 105        | 2.00          | 0.0121 |           |
| Total Xylenes* | <0.150 | 0.150           | 10/08/2024 | ND              | 6.25 | 104        | 6.00          | 0.119  |           |
| Total BTEX     | <0.300 | 0.300           | 10/08/2024 | ND              |      |            |               |        |           |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 112    | 16.0            | 10/08/2024 | ND              | 400 | 100        | 400           | 11.3 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |       |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 10/08/2024 | ND              | 188 | 94.0       | 200           | 0.679 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 10/08/2024 | ND              | 175 | 87.5       | 200           | 3.74  |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 10/08/2024 | ND              |     |            |               |       |           |

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.9 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/07/2024  
 Reported: 10/11/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 10/07/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: CS 18 0.25 (H246080-18)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |        |           |  |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|--|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD    | Qualifier |  |
| Benzene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.15 | 108        | 2.00          | 0.419  |           |  |
| Toluene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.07 | 103        | 2.00          | 0.0860 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 10/08/2024 | ND              | 2.09 | 105        | 2.00          | 0.0121 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 10/08/2024 | ND              | 6.25 | 104        | 6.00          | 0.119  |           |  |
| Total BTEX     | <0.300 | 0.300           | 10/08/2024 | ND              |      |            |               |        |           |  |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 64.0   | 16.0            | 10/08/2024 | ND              | 400 | 100        | 400           | 11.3 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |       |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 10/08/2024 | ND              | 188 | 94.0       | 200           | 0.679 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 10/08/2024 | ND              | 175 | 87.5       | 200           | 3.74  |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 10/08/2024 | ND              |     |            |               |       |           |

Surrogate: 1-Chlorooctane 99.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.9 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/07/2024  
 Reported: 10/11/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 10/07/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: CS 19 0.25 (H246080-19)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |        |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD    | Qualifier |
| Benzene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.15 | 108        | 2.00          | 0.419  |           |
| Toluene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.07 | 103        | 2.00          | 0.0860 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 10/08/2024 | ND              | 2.09 | 105        | 2.00          | 0.0121 |           |
| Total Xylenes* | <0.150 | 0.150           | 10/08/2024 | ND              | 6.25 | 104        | 6.00          | 0.119  |           |
| Total BTEX     | <0.300 | 0.300           | 10/08/2024 | ND              |      |            |               |        |           |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 256    | 16.0            | 10/08/2024 | ND              | 400 | 100        | 400           | 11.3 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |       |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 10/08/2024 | ND              | 188 | 94.0       | 200           | 0.679 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 10/08/2024 | ND              | 175 | 87.5       | 200           | 3.74  |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 10/08/2024 | ND              |     |            |               |       |           |

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.4 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 10/07/2024  
 Reported: 10/11/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 10/07/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Alyssa Parras

**Sample ID: CS 20 0.25 (H246080-20)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |        |           |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|--------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD    | Qualifier |
| Benzene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.15 | 108        | 2.00          | 0.419  |           |
| Toluene*       | <0.050 | 0.050           | 10/08/2024 | ND              | 2.07 | 103        | 2.00          | 0.0860 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 10/08/2024 | ND              | 2.09 | 105        | 2.00          | 0.0121 |           |
| Total Xylenes* | <0.150 | 0.150           | 10/08/2024 | ND              | 6.25 | 104        | 6.00          | 0.119  |           |
| Total BTEX     | <0.300 | 0.300           | 10/08/2024 | ND              |      |            |               |        |           |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| Chloride             | 624    | 16.0            | 10/08/2024 | ND              | 400 | 100        | 400           | 11.3 |           |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |       |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|-------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD   | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 10/08/2024 | ND              | 188 | 94.0       | 200           | 0.679 |           |
| DRO >C10-C28*    | 457    | 10.0            | 10/08/2024 | ND              | 175 | 87.5       | 200           | 3.74  |           |
| EXT DRO >C28-C36 | 174    | 10.0            | 10/08/2024 | ND              |     |            |               |       |           |

Surrogate: 1-Chlorooctane 98.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 93.8 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

|       |   |
|-------|---|
| S-06  | The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.                                  |
| QR-03 | The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values. |
| QM-07 | The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.  |
| ND    | Analyte NOT DETECTED at or above the reporting limit  |
| RPD   | Relative Percent Difference   |
| **    | Samples not received at proper temperature of 6°C or below.   |
| ***   | Insufficient time to reach temperature.   |
| -     | Chloride by SM4500Cl-B does not require samples be received at or below 6°C<br>Samples reported on an as received basis (wet) unless otherwise noted on report                          |

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

---

Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<sup>†</sup> Cardinal cannot accept verbal changes. Please email changes to [celey.keene@cardinalabsnm.com](mailto:celey.keene@cardinalabsnm.com)



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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



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

---

November 12, 2024

SAMANTHA MACKENZIE

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: SAND DUNES FED 28 #1 SWD

Enclosed are the results of analyses for samples received by the laboratory on 11/06/24 15:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 11/06/2024  
 Reported: 11/12/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 11/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: FS 03 0.5' (H246776-01)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |      |           |  |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|--|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |  |
| Benzene*       | <0.050 | 0.050           | 11/09/2024 | ND              | 1.67 | 83.7       | 2.00          | 21.5 |           |  |
| Toluene*       | <0.050 | 0.050           | 11/09/2024 | ND              | 1.75 | 87.3       | 2.00          | 17.0 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 11/09/2024 | ND              | 1.89 | 94.6       | 2.00          | 13.4 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 11/09/2024 | ND              | 5.69 | 94.9       | 6.00          | 13.4 |           |  |
| Total BTEX     | <0.300 | 0.300           | 11/09/2024 | ND              |      |            |               |      |           |  |

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

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: CT |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 928    | 16.0            | 11/08/2024 | 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            | 11/07/2024 | ND              | 201 | 100        | 200           | 0.524  |           |
| DRO >C10-C28*    | 764    | 10.0            | 11/07/2024 | ND              | 188 | 93.8       | 200           | 0.0245 |           |
| EXT DRO >C28-C36 | 277    | 10.0            | 11/07/2024 | ND              |     |            |               |        |           |

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 11/06/2024  
 Reported: 11/12/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 11/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: FS 04 0.5' (H246776-02)**

| 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           | 11/08/2024 | ND              | 2.29 | 115        | 2.00          | 6.50 |           |  |
| Toluene*       | <0.050 | 0.050           | 11/08/2024 | ND              | 2.21 | 110        | 2.00          | 5.57 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 11/08/2024 | ND              | 2.29 | 115        | 2.00          | 5.71 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 11/08/2024 | ND              | 6.78 | 113        | 6.00          | 5.76 |           |  |
| Total BTEx     | <0.300 | 0.300           | 11/08/2024 | ND              |      |            |               |      |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

| Chloride, SM4500CI-B |        | mg/kg           |            | Analyzed By: CT |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 528    | 16.0            | 11/08/2024 | 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            | 11/07/2024      | ND           | 201 | 100        | 200           | 0.524  |           |
| DRO >C10-C28*    | 273    | 10.0            | 11/07/2024      | ND           | 188 | 93.8       | 200           | 0.0245 |           |
| EXT DRO >C28-C36 | 104    | 10.0            | 11/07/2024      | ND           |     |            |               |        |           |

Surrogate: 1-Chlorooctane 118 % 48.2-134

Surrogate: 1-Chlorooctadecane 133 % 49.1-148

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\*=Accredited Analyte

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 11/06/2024  
 Reported: 11/12/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 11/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: FS 05 0.5' (H246776-03)**

| 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           | 11/08/2024 | ND              | 2.29 | 115        | 2.00          | 6.50 |           |
| Toluene*       | <0.050 | 0.050           | 11/08/2024 | ND              | 2.21 | 110        | 2.00          | 5.57 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 11/08/2024 | ND              | 2.29 | 115        | 2.00          | 5.71 |           |
| Total Xylenes* | <0.150 | 0.150           | 11/08/2024 | ND              | 6.78 | 113        | 6.00          | 5.76 |           |
| Total BTEX     | <0.300 | 0.300           | 11/08/2024 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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             | 1410   | 16.0            | 11/08/2024 | ND              | 384 | 96.0       | 400           | 4.08 |           |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |        |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|--------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD    | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 11/07/2024 | ND              | 201 | 100        | 200           | 0.524  |           |
| DRO >C10-C28*    | 62.2   | 10.0            | 11/07/2024 | ND              | 188 | 93.8       | 200           | 0.0245 |           |
| EXT DRO >C28-C36 | 21.5   | 10.0            | 11/07/2024 | ND              |     |            |               |        |           |

Surrogate: 1-Chlorooctane 123 % 48.2-134

Surrogate: 1-Chlorooctadecane 132 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 11/06/2024  
 Reported: 11/12/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 11/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: FS 06 0.5' (H246776-04)**

| 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           | 11/08/2024 | ND              | 2.29 | 115        | 2.00          | 6.50 |           |
| Toluene*       | <0.050 | 0.050           | 11/08/2024 | ND              | 2.21 | 110        | 2.00          | 5.57 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 11/08/2024 | ND              | 2.29 | 115        | 2.00          | 5.71 |           |
| Total Xylenes* | <0.150 | 0.150           | 11/08/2024 | ND              | 6.78 | 113        | 6.00          | 5.76 |           |
| Total BTEx     | <0.300 | 0.300           | 11/08/2024 | 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            | 11/08/2024 | ND              | 384 | 96.0       | 400           | 4.08 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |        |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|--------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD    | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 11/07/2024 | ND              | 201 | 100        | 200           | 0.524  |           |
| DRO >C10-C28*    | 24.3   | 10.0            | 11/07/2024 | ND              | 188 | 93.8       | 200           | 0.0245 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 11/07/2024 | ND              |     |            |               |        |           |

Surrogate: 1-Chlorooctane 104 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 11/06/2024  
 Reported: 11/12/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 11/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: FS 07 1' (H246776-05)**

| 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           | 11/08/2024 | ND              | 2.29 | 115        | 2.00          | 6.50 |           |
| Toluene*       | <0.050 | 0.050           | 11/08/2024 | ND              | 2.21 | 110        | 2.00          | 5.57 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 11/08/2024 | ND              | 2.29 | 115        | 2.00          | 5.71 |           |
| Total Xylenes* | <0.150 | 0.150           | 11/08/2024 | ND              | 6.78 | 113        | 6.00          | 5.76 |           |
| Total BTEx     | <0.300 | 0.300           | 11/08/2024 | ND              |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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            | 11/08/2024 | ND              | 384 | 96.0       | 400           | 4.08 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |        |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|--------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD    | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 11/07/2024 | ND              | 201 | 100        | 200           | 0.524  |           |
| DRO >C10-C28*    | 17.9   | 10.0            | 11/07/2024 | ND              | 188 | 93.8       | 200           | 0.0245 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 11/07/2024 | ND              |     |            |               |        |           |

Surrogate: 1-Chlorooctane 118 % 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  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 11/06/2024  
 Reported: 11/12/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 11/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SW 03 0-0.5' (H246776-06)**

| 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           | 11/08/2024 | ND              | 2.29 | 115        | 2.00          | 6.50 |           |  |
| Toluene*       | <0.050 | 0.050           | 11/08/2024 | ND              | 2.21 | 110        | 2.00          | 5.57 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 11/08/2024 | ND              | 2.29 | 115        | 2.00          | 5.71 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 11/08/2024 | ND              | 6.78 | 113        | 6.00          | 5.76 |           |  |
| Total BTEX     | <0.300 | 0.300           | 11/08/2024 | 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             | 64.0   | 16.0            | 11/08/2024 | ND              | 384 | 96.0       | 400           | 4.08 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |        |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|--------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD    | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 11/07/2024 | ND              | 201 | 100        | 200           | 0.524  |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 11/07/2024 | ND              | 188 | 93.8       | 200           | 0.0245 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 11/07/2024 | ND              |     |            |               |        |           |

Surrogate: 1-Chlorooctane 125 % 48.2-134

Surrogate: 1-Chlorooctadecane 133 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 11/06/2024  
 Reported: 11/12/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 11/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SW 04 0-0.5' (H246776-07)**

| BTEx 8021B     |        | mg/kg           |            | Analyzed By: JH |      |            |               |      |           |  |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|--|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |  |
| Benzene*       | <0.050 | 0.050           | 11/08/2024 | ND              | 2.29 | 115        | 2.00          | 6.50 |           |  |
| Toluene*       | <0.050 | 0.050           | 11/08/2024 | ND              | 2.21 | 110        | 2.00          | 5.57 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 11/08/2024 | ND              | 2.29 | 115        | 2.00          | 5.71 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 11/08/2024 | ND              | 6.78 | 113        | 6.00          | 5.76 |           |  |
| Total BTEx     | <0.300 | 0.300           | 11/08/2024 | ND              |      |            |               |      |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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            | 11/08/2024 | ND              | 384 | 96.0       | 400           | 4.08 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |        |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|--------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD    | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 11/07/2024 | ND              | 201 | 100        | 200           | 0.524  |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 11/07/2024 | ND              | 188 | 93.8       | 200           | 0.0245 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 11/07/2024 | ND              |     |            |               |        |           |

Surrogate: 1-Chlorooctane 119 % 48.2-134

Surrogate: 1-Chlorooctadecane 127 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 11/06/2024  
 Reported: 11/12/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 11/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SW 05 0-0.5' (H246776-08)**

| 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           | 11/08/2024 | ND              | 2.29 | 115        | 2.00          | 6.50 |           |  |
| Toluene*       | <0.050 | 0.050           | 11/08/2024 | ND              | 2.21 | 110        | 2.00          | 5.57 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 11/08/2024 | ND              | 2.29 | 115        | 2.00          | 5.71 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 11/08/2024 | ND              | 6.78 | 113        | 6.00          | 5.76 |           |  |
| Total BTEX     | <0.300 | 0.300           | 11/08/2024 | 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            | 11/08/2024 | ND              | 384 | 96.0       | 400           | 4.08 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |        |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|--------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD    | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 11/07/2024 | ND              | 201 | 100        | 200           | 0.524  |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 11/07/2024 | ND              | 188 | 93.8       | 200           | 0.0245 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 11/07/2024 | ND              |     |            |               |        |           |

Surrogate: 1-Chlorooctane 122 % 48.2-134

Surrogate: 1-Chlorooctadecane 130 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 11/06/2024  
 Reported: 11/12/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 11/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SW 06 0-1' (H246776-09)**

| 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           | 11/08/2024 | ND              | 2.29 | 115        | 2.00          | 6.50 |           |  |
| Toluene*       | <0.050 | 0.050           | 11/08/2024 | ND              | 2.21 | 110        | 2.00          | 5.57 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 11/08/2024 | ND              | 2.29 | 115        | 2.00          | 5.71 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 11/08/2024 | ND              | 6.78 | 113        | 6.00          | 5.76 |           |  |
| Total BTEX     | <0.300 | 0.300           | 11/08/2024 | ND              |      |            |               |      |           |  |

Surrogate: 4-Bromofluorobenzene (PID) 108 % 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            | 11/08/2024 | ND              | 384 | 96.0       | 400           | 4.08 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |        |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|--------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD    | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 11/07/2024 | ND              | 201 | 100        | 200           | 0.524  |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 11/07/2024 | ND              | 188 | 93.8       | 200           | 0.0245 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 11/07/2024 | ND              |     |            |               |        |           |

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 11/06/2024  
 Reported: 11/12/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 11/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: DS 01 0.25' (H246776-10)**

| 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           | 11/08/2024 | ND              | 2.29 | 115        | 2.00          | 6.50 |           |  |
| Toluene*       | <0.050 | 0.050           | 11/08/2024 | ND              | 2.21 | 110        | 2.00          | 5.57 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 11/08/2024 | ND              | 2.29 | 115        | 2.00          | 5.71 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 11/08/2024 | ND              | 6.78 | 113        | 6.00          | 5.76 |           |  |
| Total BTEX     | <0.300 | 0.300           | 11/08/2024 | 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             | <16.0  | 16.0            | 11/08/2024 | ND              | 384 | 96.0       | 400           | 4.08 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |        |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|--------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD    | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 11/07/2024 | ND              | 201 | 100        | 200           | 0.524  |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 11/07/2024 | ND              | 188 | 93.8       | 200           | 0.0245 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 11/07/2024 | ND              |     |            |               |        |           |

Surrogate: 1-Chlorooctane 119 % 48.2-134

Surrogate: 1-Chlorooctadecane 127 % 49.1-148

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**Analytical Results For:**

ENSOLUM, LLC  
 SAMANTHA MACKENZIE  
 705 W WADLEY AVE.  
 MIDLAND TX, 79705  
 Fax To:

Received: 11/06/2024  
 Reported: 11/12/2024  
 Project Name: SAND DUNES FED 28 #1 SWD  
 Project Number: 03B1417197  
 Project Location: OXY - EDDY COUNTY, NM

Sampling Date: 11/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: DS 02 0.25' (H246776-11)**

| 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           | 11/08/2024 | ND              | 2.29 | 115        | 2.00          | 6.50 |           |  |
| Toluene*       | <0.050 | 0.050           | 11/08/2024 | ND              | 2.21 | 110        | 2.00          | 5.57 |           |  |
| Ethylbenzene*  | <0.050 | 0.050           | 11/08/2024 | ND              | 2.29 | 115        | 2.00          | 5.71 |           |  |
| Total Xylenes* | <0.150 | 0.150           | 11/08/2024 | ND              | 6.78 | 113        | 6.00          | 5.76 |           |  |
| Total BTEX     | <0.300 | 0.300           | 11/08/2024 | 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             | 32.0   | 16.0            | 11/08/2024 | ND              | 384 | 96.0       | 400           | 4.08 |           |  |

| TPH 8015M        |        | mg/kg           |            | Analyzed By: MS |     |            |               |      |           |
|------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte          | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |
| GRO C6-C10*      | <10.0  | 10.0            | 11/08/2024 | ND              | 217 | 109        | 200           | 4.43 |           |
| DRO >C10-C28*    | <10.0  | 10.0            | 11/08/2024 | ND              | 187 | 93.7       | 200           | 5.05 |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 11/08/2024 | ND              |     |            |               |      |           |

Surrogate: 1-Chlorooctane 102 % 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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### Notes and Definitions

|       |  |
|-------|--|
| S-04  | The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.   |
| QR-04 | The RPD for the BS/BSD was outside of historical limits.   |
| 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<br>Samples reported on an as received basis (wet) unless otherwise noted on report |

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\*=Accredited Analyte

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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                  |  |  |  |  |  |  |  |  |  | <b>BILL TO</b>        |  |  |  |  |  |  |  |  |  | <b>ANALYSIS REQUEST</b> |  |  |  |  |  |  |  |  |  |
| Project Manager: Samantha M. Allen          |  |  |  |  |  |  |  |  |  | P.O. #:               |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
| Address: 601 N Marienfeld Street, Suite 400 |  |  |  |  |  |  |  |  |  | ATTN: Wade P. Harkins |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
| City: Midland                               |  |  |  |  |  |  |  |  |  | State: TX             |  |  |  |  |  |  |  |  |  | Zip: 79701              |  |  |  |  |  |  |  |  |  |
| Phone #: 763-357-3545                       |  |  |  |  |  |  |  |  |  | Fax #:                |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
| Project #: 038147197                        |  |  |  |  |  |  |  |  |  | Project Owner:        |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
| Project Name: Social Pumps Fed 28 #1 SWP    |  |  |  |  |  |  |  |  |  | City:                 |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
| Project Location: Eddy County, NM           |  |  |  |  |  |  |  |  |  | State:                |  |  |  |  |  |  |  |  |  | Zip:                    |  |  |  |  |  |  |  |  |  |
| Sample Name: Nech Paker                     |  |  |  |  |  |  |  |  |  | Phone #               |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
| FOR LAB USE ONLY                            |  |  |  |  |  |  |  |  |  | Fax #:                |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
| Lab I.D.                                    |  |  |  |  |  |  |  |  |  | Sample I.D.           |  |  |  |  |  |  |  |  |  | Depth (feet)            |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | (G)RAB OR (C)OMP.     |  |  |  |  |  |  |  |  |  | # CONTAINERS            |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | GROUNDWATER           |  |  |  |  |  |  |  |  |  | WASTEWATER              |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | SOIL                  |  |  |  |  |  |  |  |  |  | OIL                     |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | SLUDGE                |  |  |  |  |  |  |  |  |  | OTHER :                 |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | ACID/BASE:            |  |  |  |  |  |  |  |  |  | ICE / COOL              |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | OTHER :               |  |  |  |  |  |  |  |  |  | DATE                    |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | TIME                  |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
| H340-714                                    |  |  |  |  |  |  |  |  |  | P03                   |  |  |  |  |  |  |  |  |  | 0.5'                    |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P04                   |  |  |  |  |  |  |  |  |  | 0.5'                    |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P05                   |  |  |  |  |  |  |  |  |  | 0.5'                    |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P06                   |  |  |  |  |  |  |  |  |  | 0.5'                    |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P07                   |  |  |  |  |  |  |  |  |  | 1'                      |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P03                   |  |  |  |  |  |  |  |  |  | 0-0.5'                  |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P04                   |  |  |  |  |  |  |  |  |  | 0-0.5'                  |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P05                   |  |  |  |  |  |  |  |  |  | 0-0.5'                  |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P06                   |  |  |  |  |  |  |  |  |  | 0-1'                    |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P07                   |  |  |  |  |  |  |  |  |  | 0-2.5'                  |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P08                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P09                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P10                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P11                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P12                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P13                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P14                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P15                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P16                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P17                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P18                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P19                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P20                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P21                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P22                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P23                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P24                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P25                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P26                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P27                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P28                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P29                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P30                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P31                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P32                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P33                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P34                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P35                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P36                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P37                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P38                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P39                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P40                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P41                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P42                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P43                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P44                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P45                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P46                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P47                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P48                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P49                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P50                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P51                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P52                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P53                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P54                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P55                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P56                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P57                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P58                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P59                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P60                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P61                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P62                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P63                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P64                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P65                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P66                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P67                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P68                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P69                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P70                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P71                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P72                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P73                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P74                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P75                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P76                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P77                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P78                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P79                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P80                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P81                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P82                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P83                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P84                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P85                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P86                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P87                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P88                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P89                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P90                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P91                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P92                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P93                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P94                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P95                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P96                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P97                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P98                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P99                   |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  | P100                  |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |                         |  |  |  |  |  |  |  |  |  |



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

|  |             |                                |                                     |  |  |  |                        |   |   |
|--|-------------|--------------------------------|-------------------------------------|--|--|--|------------------------|---|---|
| Company Name: Ensolum, LLC   |             | <b>BILL TO</b>                 |                                     | ANALYSIS REQUEST   |  |  |                        |   |   |
| Project Manager: <i>Shawn Kelly MacKenzie</i>  |             | P.O. #:                        |                                     |  |  |  |                        |   |   |
| Address: 601 N Marientfield Street, Suite 400  |             | City: <i>Albuquerque, NM</i>   |                                     |  |  |  |                        |   |   |
| City: Midland  |             | State: TX                      |                                     | Zip: 79701   |  |  |                        |   |   |
| Phone #: 703-357-3845  |             | Fax #:                         |                                     |  |  |  |                        |   |   |
| Project #: 0381417197  |             | Project Owner:                 |                                     |  |  |  |                        |   |   |
| Project Name: <i>Good River Feeder 28 #1 SWD</i>   |             | City:                          |                                     |  |  |  |                        |   |   |
| Project Location: <i>Edgar County, NM</i>  |             | State:                         |                                     | Zip:   |  |  |                        |   |   |
| Sampler Name: <i>North Puffer</i>  |             | Phone #                        |                                     |  |  |  |                        |   |   |
| FOR LAB USE ONLY   |             | Fax #:                         |                                     |  |  |  |                        |   |   |
| Lab I.D.   | Sample I.D. | Depth (feet)                   | (G)RAB OR (C)OMP.                   | # CONTAINERS   | MATRIX   | PRESERV  | SAMPLING               |   |   |
| <i>H240779</i>   | <i>D902</i> | <i>0.25</i>                    | <input checked="" type="checkbox"/> | <i>1</i>   | GROUNDWATER<br>WASTEWATER<br><input checked="" type="checkbox"/> SOIL<br>OIL<br>SLUDGE<br>OTHER: | <input checked="" type="checkbox"/>  | DATE<br><i>11/5/24</i> | TIME<br><i>0830</i>   | <i>BTEX 8021</i><br><i>TPH 8015</i><br><i>(4/cables 4500)</i> |
| PLEASE NOTE: Liability and Damages, Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. |             |                                |                                     |  |  |  |                        |   |   |
| Relinquished By: <i>Melvin Davis</i>   |             | Date: <i>11-6-24</i>           |                                     | Received By: <i>Shawn Kelly MacKenzie</i>  |  | Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |                        | Add'l Phone #:  |   |
| Time: <i>1535</i>  |             | Date: <i>11/5/24</i>           |                                     | Received By: <i>Shawn Kelly MacKenzie</i>  |  | All Results are emailed. Please provide Email address:                             |                        |   |   |
| Time:  |             |                                |                                     |  |  | REMARKS: <i>Shawn Kelly MacKenzie</i>  |                        |   |   |
| Delivered By: (Circle One)   |             | Observed Temp. °C: <i>4.1</i>  |                                     | Sample Condition: <input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact |  | CHECKED BY: <i>SD</i>  |                        | Turnaround Time: <i>Standard</i>  |   |
| Sampler - UPS - Bus - Other:   |             | Corrected Temp. °C: <i>3.5</i> |                                     | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                        |  |  |                        | <input checked="" type="checkbox"/> Bacteria (only) <input type="checkbox"/> Sample Condition |   |
|  |             |                                |                                     |  |  |  |                        | Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No               |   |
|  |             |                                |                                     |  |  |  |                        | Observed Temp. °C   |   |
|  |             |                                |                                     |  |  |  |                        | Corrected Temp. °C  |   |

† Cardinal cannot accept verbal changes. Please email changes to [celey.keene@cardinallabsnm.com](mailto:celey.keene@cardinallabsnm.com)



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

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September 19, 2024

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

RE: LEA LAND CALICHE PIT

Enclosed are the results of analyses for samples received by the laboratory on 09/16/24 14:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene  
Lab Director/Quality Manager





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**Analytical Results For:**

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

Received: 09/16/2024  
 Reported: 09/19/2024  
 Project Name: LEA LAND CALICHE PIT  
 Project Number: 03B1417160  
 Project Location: OXY

Sampling Date: 09/13/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: LEA LAND CALICHE PIT 0.5' (H245619-01)**

| BTEX 8021B     |        | mg/kg           | Analyzed By: JH |              |      |            |               |      |           |
|----------------|--------|-----------------|-----------------|--------------|------|------------|---------------|------|-----------|
| Analyte        | Result | Reporting Limit | Analyzed        | Method Blank | BS   | % Recovery | True Value QC | RPD  | Qualifier |
| Benzene*       | <0.050 | 0.050           | 09/17/2024      | ND           | 2.04 | 102        | 2.00          | 2.40 |           |
| Toluene*       | <0.050 | 0.050           | 09/17/2024      | ND           | 1.91 | 95.7       | 2.00          | 2.59 |           |
| Ethylbenzene*  | <0.050 | 0.050           | 09/17/2024      | ND           | 1.93 | 96.4       | 2.00          | 2.47 |           |
| Total Xylenes* | <0.150 | 0.150           | 09/17/2024      | ND           | 5.72 | 95.4       | 6.00          | 2.68 |           |
| Total BTEX     | <0.300 | 0.300           | 09/17/2024      | ND           |      |            |               |      |           |

Surrogate: 4-Bromofluorobenzene (PID) 93.3 % 71.5-134

| Chloride, SM4500Cl-B |        | mg/kg           |            | Analyzed By: HM |     |            |               |      |           |  |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride             | 560    | 16.0            | 09/17/2024 | 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            | 09/17/2024 | ND              | 204 | 102        | 200           | 0.238 |           |
| DRO >C10-C28*    | 98.6   | 10.0            | 09/17/2024 | ND              | 202 | 101        | 200           | 5.70  |           |
| EXT DRO >C28-C36 | <10.0  | 10.0            | 09/17/2024 | ND              |     |            |               |       |           |

Surrogate: 1-Chlorooctane 70.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.3 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

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

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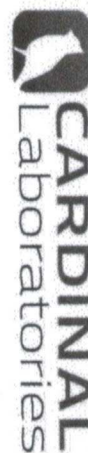
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A handwritten signature in black ink, appearing to read "Celey D. Keene", is written over a horizontal line.

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

[illegible]



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

QUESTIONS

Action 421827

**QUESTIONS**

|  |  |
|--|--|
| Operator:<br>OXY USA INC<br>P.O. Box 4294<br>Houston, TX 772104294 | OGRID:<br>16696  |
|  | Action Number:<br>421827   |
|  | Action Type:<br>[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan) |

**QUESTIONS**

|                      |   |
|----------------------|---|
| <b>Prerequisites</b> |   |
| Incident ID (n#)     | nAPP2218940420  |
| Incident Name        | NAPP2218940420 SAND DUNES 28 FED 1 SWD @ 30-015-26194 |
| Incident Type        | Produced Water Release                                |
| Incident Status      | Remediation Plan Received                             |
| Incident Well        | [30-015-26194] SAND DUNES 28 FEDERAL #001             |

**Location of Release Source**

Please answer all the questions in this group.

|                         |                         |
|-------------------------|-------------------------|
| Site Name               | SAND DUNES 28 FED 1 SWD |
| Date Release Discovered | 07/05/2022              |
| Surface Owner           | Federal                 |

**Incident Details**

Please answer all the questions in this group.

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

**Nature and Volume of Release**

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.

|  |   |
|--|---|
| Crude Oil Released (bbls) Details  | Not answered.   |
| Produced Water Released (bbls) Details   | Cause: Equipment Failure   Flow Line - Injection   Produced Water   Released: 15 BBL   Recovered: 1 BBL   Lost: 14 BBL. |
| Is the concentration of chloride in the produced water >10,000 mg/l  | Yes   |
| Condensate Released (bbls) Details   | Not answered.   |
| Natural Gas Vented (Mcf) Details   | Not answered.   |
| Natural Gas Flared (Mcf) Details   | Not answered.   |
| Other Released Details   | Not answered.   |
| Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts) | Not answered.   |

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QUESTIONS, Page 2

Action 421827

**QUESTIONS (continued)**

|  |  |
|--|--|
| Operator:<br>OXY USA INC<br>P.O. Box 4294<br>Houston, TX 772104294 | OGRID:<br>16696  |
|  | Action Number:<br>421827   |
|  | Action Type:<br>[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan) |

**QUESTIONS**

| <b>Nature and Volume of Release (continued)</b>  |  |
|--|--|
| Is this a gas only submission (i.e. only significant Mcf values reported)  | <b>No, according to supplied volumes this does not appear to be a "gas only" report.</b> |
| Was this a major release as defined by Subsection A of 19.15.29.7 NMAC   | <b>No</b>  |
| Reasons why this would be considered a submission for a notification of a major release  | <i>Unavailable.</i>  |
| <i>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.</i> |  |

**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   | <b>True</b>          |
| The impacted area has been secured to protect human health and the environment                                     | <b>True</b>          |
| Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices | <b>True</b>          |
| All free liquids and recoverable materials have been removed and managed appropriately                             | <b>True</b>          |
| If all the actions described above have not been undertaken, explain why   | <i>Not answered.</i> |

*Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.*

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

|  |  |
|--|--|
| I hereby agree and sign off to the above statement | Name: Wade Dittrich<br>Title: Environmental Coordinator<br>Email: <a href="mailto:wade_dittrich@oxy.com">wade_dittrich@oxy.com</a><br>Date: 01/16/2025 |
|--|--|

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QUESTIONS, Page 3

Action 421827

**QUESTIONS (continued)**

|  |  |
|--|--|
| Operator:<br>OXY USA INC<br>P.O. Box 4294<br>Houston, TX 772104294 | OGRID:<br>16696  |
|  | Action Number:<br>421827   |
|  | Action Type:<br>[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan) |

**QUESTIONS**

|  |                                |
|--|--------------------------------|
| <b>Site Characterization</b>   |                                |
| <i>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.</i> |                                |
| 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  | NM OSE iWaters Database Search |
| Did this release impact groundwater or surface water   | No                             |
| <b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>   |                                |
| A continuously flowing watercourse or any other significant watercourse  | Between 1 and 5 (mi.)          |
| Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)  | Between 1 and 5 (mi.)          |
| An occupied permanent residence, school, hospital, institution, or church  | Greater than 5 (mi.)           |
| A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes  | 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  | Between 1 and 5 (mi.)          |
| A wetland  | Between 1 and 5 (mi.)          |
| A subsurface mine  | Between 1 and 5 (mi.)          |
| An (non-karst) unstable area   | Between 1 and 5 (mi.)          |
| Categorize the risk of this well / site being in a karst geology   | Low                            |
| A 100-year floodplain  | Between 1 and 5 (mi.)          |
| Did the release impact areas not on an exploration, development, production, or storage site   | No                             |

|   |            |
|---|------------|
| <b>Remediation Plan</b>   |            |
| <i>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.</i>  |            |
| Requesting a remediation plan approval with this submission   | Yes        |
| <i>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.</i>  |            |
| Have the lateral and vertical extents of contamination been fully delineated  | Yes        |
| Was this release entirely contained within a lined containment area   | No         |
| <b>Soil Contamination Sampling:</b> (Provide the highest observable value for each, in milligrams per kilograms.)   |            |
| Chloride (EPA 300.0 or SM4500 Cl B)   | 8320       |
| TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)   | 8360       |
| GRO+DRO (EPA SW-846 Method 8015M)   | 6080       |
| BTEX (EPA SW-846 Method 8021B or 8260B)   | 0          |
| Benzene (EPA SW-846 Method 8021B or 8260B)  | 0          |
| <i>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>  |            |
| On what estimated date will the remediation commence  | 06/24/2024 |
| On what date will (or did) the final sampling or liner inspection occur   | 11/05/2024 |
| On what date will (or was) the remediation complete(d)  | 11/05/2024 |
| What is the estimated surface area (in square feet) that will be reclaimed  | 9146       |
| What is the estimated volume (in cubic yards) that will be reclaimed  | 6          |
| What is the estimated surface area (in square feet) that will be remediated   | 9146       |
| What is the estimated volume (in cubic yards) that will be remediated   | 6          |
| <i>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.</i>  |            |
| <i>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.</i> |            |

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**Oil Conservation Division**  
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**Santa Fe, NM 87505**

QUESTIONS, Page 4

Action 421827

**QUESTIONS (continued)**

|  |  |
|--|--|
| Operator:<br>OXY USA INC<br>P.O. Box 4294<br>Houston, TX 772104294 | OGRID:<br>16696  |
|  | Action Number:<br>421827   |
|  | Action Type:<br>[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan) |

**QUESTIONS**

|  |  |
|--|--|
| <b>Remediation Plan (continued)</b>  |  |
| <i>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.</i>   |  |
| <b>This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:</b>   |  |
| <i>(Select all answers below that apply.)</i>  |  |
| (Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)  | Yes  |
| Which OCD approved facility will be used for <b>off-site</b> disposal  | LEA LAND LANDFILL [FEEM0112342028]   |
| <b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal  | Not answered.  |
| <b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state   | Not answered.  |
| <b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility   | Not answered.  |
| (Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)  | Not answered.  |
| (In Situ) Soil Vapor Extraction  | Not answered.  |
| (In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)  | Not answered.  |
| (In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)   | Not answered.  |
| (In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)   | Not answered.  |
| Ground Water Abatement pursuant to 19.15.30 NMAC   | Not answered.  |
| OTHER (Non-listed remedial process)  | Not answered.  |
| <i>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>   |  |
| I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. |  |
| I hereby agree and sign off to the above statement   | Name: Wade Dittrich<br>Title: Environmental Coordinator<br>Email: <a href="mailto:wade_dittrich@oxy.com">wade_dittrich@oxy.com</a><br>Date: 01/16/2025 |
| <i>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.</i>  |  |

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1220 S. St Francis Dr.  
Santa Fe, NM 87505

QUESTIONS, Page 5

Action 421827

QUESTIONS (continued)

|  |  |
|--|--|
| Operator:<br><br>OXY USA INC<br>P.O. Box 4294<br>Houston, TX 772104294 | OGRID:<br><br>16696  |
|  | Action Number:<br><br>421827   |
|  | Action Type:<br><br>[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan) |

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 |

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, Page 6

Action 421827

**QUESTIONS (continued)**

|  |  |
|--|--|
| Operator:<br>OXY USA INC<br>P.O. Box 4294<br>Houston, TX 772104294 | OGRID:<br>16696  |
|  | Action Number:<br>421827   |
|  | Action Type:<br>[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan) |

**QUESTIONS**

| Sampling Event Information  |            |
|---|------------|
| Last sampling notification (C-141N) recorded  | 397617     |
| Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC | 11/05/2024 |
| What was the (estimated) number of samples that were to be gathered                             | 6          |
| What was the sampling surface area in square feet   | 9145       |

**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 | No |
|--|----|



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CONDITIONS

Action 421827

CONDITIONS

|  |  |
|--|--|
| Operator:<br>OXY USA INC<br>P.O. Box 4294<br>Houston, TX 772104294 | OGRID:<br>16696  |
|  | Action Number:<br>421827   |
|  | Action Type:<br>[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan) |

CONDITIONS

| Created By     | Condition                                       | Condition Date |
|----------------|---|----------------|
| crystal.walker | Remediation Plan and variance request approved. | 1/23/2025      |