



December 2, 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: Closure Request  
State D A CTB  
Incident Number nAPP2505326850  
Facility ID fAPP2224169341  
Lea County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), has prepared this *Closure Request* to document delineation, excavation, and soil sampling activities performed at the State D A Central Tank Battery (CTB) (Site). The purpose of delineation, excavation, and soil sampling activities, conducted in accordance with an approved Remediation Work Plan (*Work Plan*), was to address impacts to soil resulting from a release of crude oil at the Site. Hilcorp is submitting this *Closure Request*, describing delineation and excavation activities that have occurred and requesting no further remediation for Incident Number nAPP2505326850.

**SITE DESCRIPTION AND RELEASE SUMMARY**

The Site is located in Unit L, Section 16, Township 21 South, Range 37 East, in Lea County, New Mexico (32.476598°, -103.172495°) and is associated with oil and gas exploration and production operations on State Trust Land (STL) managed by the New Mexico State Land Office (NMSLO) under Lease Number B000850016.

On February 21, 2025, Hilcorp personnel discovered a release of approximately 165 barrels (bbls) of crude oil at the Site within the secondary containment berm of the tank battery. A vacuum truck was dispatched to the Site to recover free standing fluids, approximately 160 bbls of crude oil were recovered. Hilcorp reported the release to the New Mexico Oil Conservation Division (NMOCD) via Notification of Release (NOR) on February 22, 2025. The release was assigned Incident Number nAPP2505326850.

Ensolum conducted Site assessment and delineation activities and presented the results in a *Work Plan*. The *Work Plan* was submitted on May 22, 2025, and approved by the NMOCD on June 4, 2025. The *Work Plan* proposed excavation of impacted soil identified during delineation activities. Additional details regarding the release, Site Characterization, compliance with the Cultural Properties Protection (CPP) Rule, delineation activities, and soil sample analytical results can be referenced in the approved Work Plan, included as Attachment I in this report.

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## SITE CHARACTERIZATION AND CLOSURE CRITERIA

As documented in the approved *Work Plan*, 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
- TPH: 2,500 mg/kg
- Chloride: 10,000 mg/kg

## DELINEATION SOIL SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

Between August 5, 2025, and September 4, 2025, Ensolum personnel were at the Site to oversee additional delineation activities to further define the vertical and lateral extent of impacted and/or waste-containing soil. Eight boreholes (BH04 through BH11) were advanced via hand auger to depths ranging from 1-foot to 5 feet bgs. Discrete delineation soil samples were collected from each borehole from depths ranging from 0.5 feet to 5 feet bgs. Additionally, sixteen delineation soil samples (SS03 through SS18) were collected within and around the release extent at an approximate depth of 0.5 feet bgs to define the lateral extent of impacted soil. The delineation 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 is included in Appendix A. Field screening results and observations for the boreholes were logged on lithologic soil sampling logs, which are included in Appendix B. The borehole and delineation soil sample locations are depicted on Figure 2.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the Site 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 or Eurofins Carlsbad (Eurofins) in Carlsbad, New Mexico, for analysis of the following contaminants 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 SM4500 or EPA Method 300.0.

Laboratory analytical results for delineation soil samples collected from boreholes BH05 through BH11, indicated TPH-GRO/TPH-DRO and/or TPH concentrations exceeded the Site Closure Criteria at depths ranging from 1-foot to 4 feet bgs within the release extent. Laboratory analytical results for delineation soil samples collected from BH04 and delineation soil samples SS03 through SS18, indicated all COC concentrations were compliant with the Site Closure Criteria and successfully defined the lateral extent of the release.

## EXCAVATION SOIL SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

Between August 5, 2025, and September 4, 2025, Ensolum personnel were onsite to excavate impacted soil in accordance with the approved *Work Plan*. Excavation activities were performed by use of heavy equipment. Photographic documentation is included in Appendix A.

To direct excavation activities, soil was screened for VOCs and chloride. Following removal of the impacted soil, Ensolum personnel collected 5-point composite soil samples representing no more than

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200 square feet from the floor and sidewalls of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS19 were collected from the floor of the excavation at depths ranging from 2 feet to 6 feet bgs. Composite soil samples SW01 through SW05 were collected from the sidewalls of the excavation from depths ranging from the ground surface to 7 feet bgs. The composite soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 3.

Laboratory analytical results for the excavation floor and sidewall samples, collected from the final excavation extent, indicated all COC concentrations were compliant with the Site Closure Criteria. The laboratory analytical results are summarized on the attached Table 1 and the complete laboratory analytical reports are included in Appendix C.

The final excavation extent measured approximately 3,753 square feet. A total of approximately 450 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and disposed of at the Sundance Services, Inc. in Hobbs, New Mexico. The final excavation was fenced off pending backfilling.

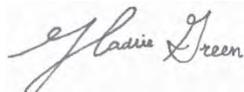
## CLOSURE REQUEST

Delineation and excavation activities were conducted at the Site to address the February 21, 2025 crude oil release. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated all COCs were compliant with the Site Closure Criteria. Based on the soil sample laboratory analytical results, no further remediation is required. Hilcorp will backfill the excavation with material purchased locally and recontour the Site to match pre-existing Site conditions.

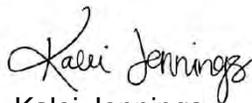
Excavation of impacted soil has mitigated impacts exceeding the Closure Criteria at the Site. Hilcorp believes these remedial actions are protective of human health, the environment, and groundwater. As such, Hilcorp respectfully requests closure for Incident Number nAPP2505326850.

If you have any questions or comments, please contact Ms. Kalei Jennings at (817) 683-2503 or [kjennings@ensolum.com](mailto:kjennings@ensolum.com).

Sincerely,  
**Ensolum, LLC**



Hadlie Green  
Project Geologist



Kalei Jennings  
Senior Managing Scientist

cc: Billy Ginn, Hilcorp Energy Company  
NMSLO

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Appendices:

- Figure 1 Site Receptor Map
- Figure 2 Delineation Soil Sample Locations
- Figure 3 Excavation Soil Sample Locations
- Table 1 Soil Sample Analytical Results
- Appendix A Photographic Log
- Appendix B Lithologic Soil Sampling Logs
- Appendix C Laboratory Analytical Reports & Chain-of-Custody Documentation

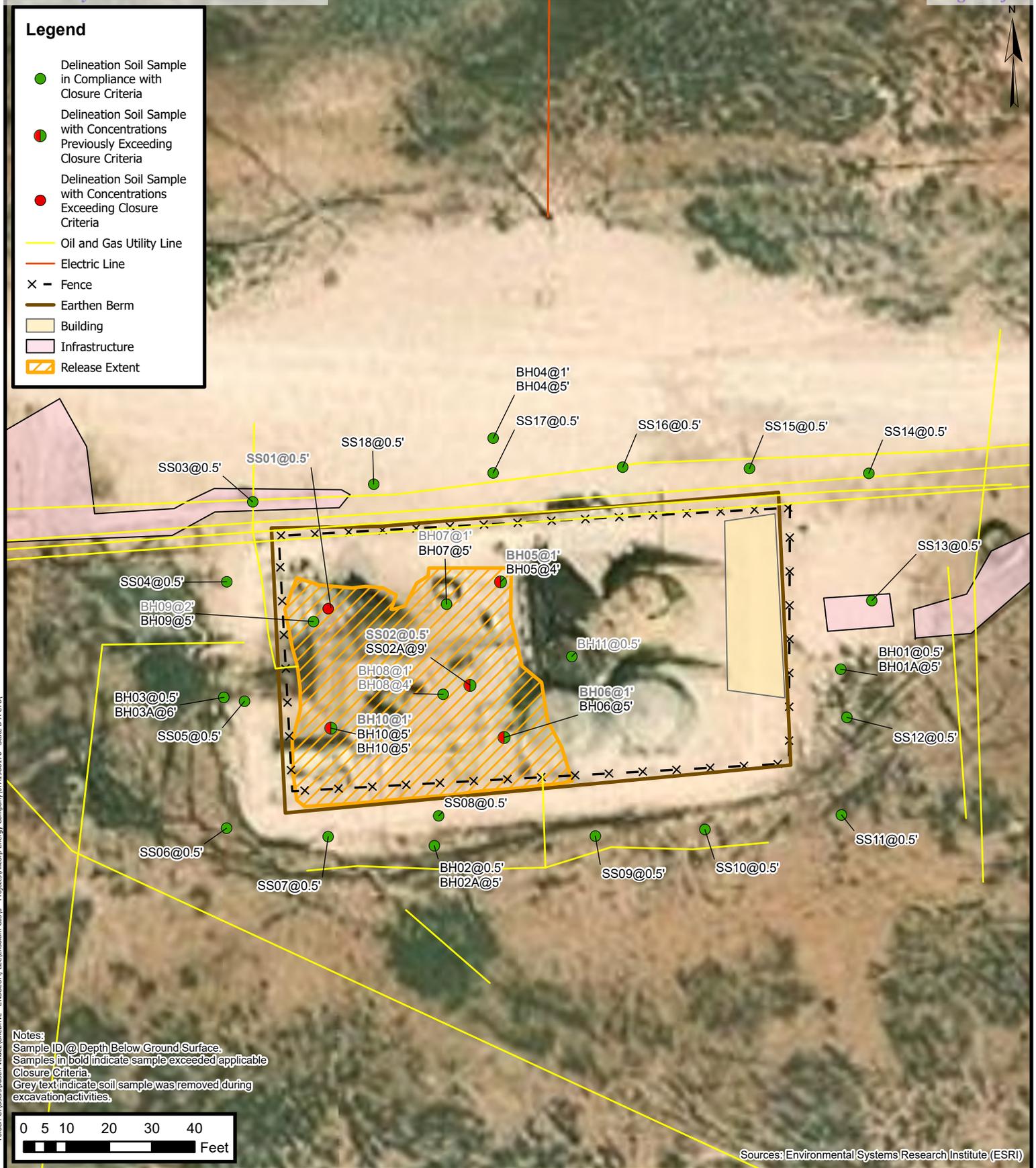
Attachment I May 21, 2025, *Remediation Work Plan*



FIGURES







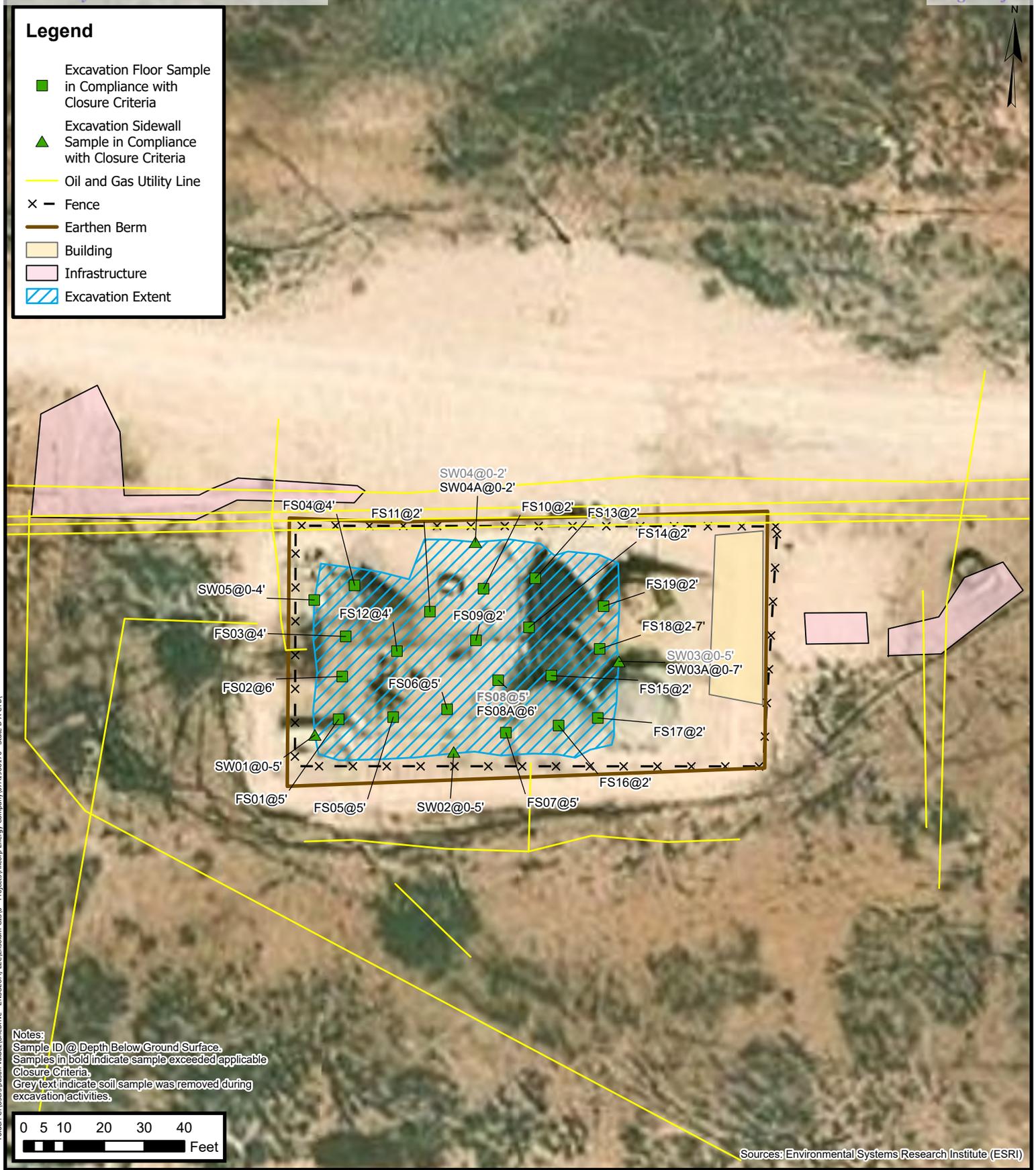
**Delineation Soil Sample Locations**

Hilcorp Energy Company  
 State D A CTB  
 Incident Number: nAPP2505326850  
 Unit L, Section 16, T 21S, R 37E  
 Lea County, New Mexico

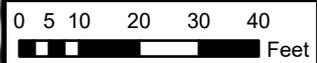
**FIGURE**  
**2**

### Legend

- Excavation Floor Sample in Compliance with Closure Criteria
- ▲ Excavation Sidewall Sample in Compliance with Closure Criteria
- Oil and Gas Utility Line
- x Fence
- Earthen Berm
- Building
- Infrastructure
- Excavation Extent



Notes:  
 Sample ID @ Depth Below Ground Surface.  
 Samples in bold indicate sample exceeded applicable Closure Criteria.  
 Grey text indicate soil sample was removed during excavation activities.



Sources: Environmental Systems Research Institute (ESRI)



## Excavation Soil Sample Locations

Hilcorp Energy Company  
 State D A CTB  
 Incident Number: nAPP2505326850  
 Unit L, Section 16, T 21S, R 37E  
 Lea County, New Mexico

### FIGURE

### 3



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TABLES

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**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 State D A CTB  
 Hilcorp Energy Company  
 Lea County, New Mexico

Sample Identification	Date	Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCDClosure Criteria for Soils Impacted by a Release</b>			<b>10</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1,000</b>	<b>2,500</b>	<b>10,000</b>
<b>Assessment Soil Samples</b>													
SS01	03/05/2025	0.5	2.16	31.8	37.8	75.3	147	4,820	8,140	<999	12,960	12,960	12.1
SS02	03/05/2025	0.5	<0.497	7.45	8.90	46.0	32.3	4,780	6,370	<996	8,150	8,150	40.4
SS02A	03/05/2025	9	<0.0992	0.106	0.187	0.846	1.14	<50.5	459	<50.5	459	459	21.2
SS03	09/04/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS04	09/04/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS05	09/04/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS06	09/04/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS07	09/04/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	83.5	110	83.5	194	<16.0
SS08	09/04/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	81.1	94.0	81.1	175	<16.0
SS09	09/04/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	11.4	16.7	11.4	28.1	<16.0
SS10	09/04/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS11	09/04/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
SS12	09/04/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	31.3	39.8	31.3	71.1	<16.0
SS13	09/04/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	526	388	526	914	<16.0
SS14	09/04/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	54.5	75.1	54.5	130	16.0
SS15	09/04/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	94.4	114	94.4	208	<16.0
SS16	09/04/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	499	428	499	927	32.0
SS17	09/04/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	283	231	283	514	<16.0
SS18	09/04/2025	0.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	853	577	853	1,430	32.0
<b>Delineation Soil Samples</b>													
BH01	05/07/2025	0.5	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	<50.1	<50.1	<50.1	<50.1	<50.1	99.0
BH01A	05/07/2025	5	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.2	<50.2	<50.2	<50.2	<50.2	174
BH02	05/07/2025	0.5	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.7	<49.7	<49.7	<49.7	<49.7	83.4
BH02A	05/07/2025	5	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	101
BH03	05/07/2025	0.5	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	<49.6	<49.6	<49.6	<49.6	<49.6	98.6
BH03A	05/07/2025	6	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	104
BH04	08/05/2025	1	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.1	<50.1	<50.1	<50.1	<50.1	<10.1
BH04	08/05/2025	5	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	16.5
BH05	08/05/2025	4	0.406	0.508	0.873	2.44	3.90	<250	4,640	<250	4,640	4,640	37.8
BH05	08/05/2025	4	<0.0201	<0.0201	<0.0201	0.0523	0.0523	<50.0	86.9	54.7	86.9	142	10.2
BH06	08/05/2025	1	<0.0202	0.0275	0.221	2.49	2.74	<249	2,090	<249	2,090	2,090	149
BH06	08/05/2025	5	<0.0199	0.0365	<0.0199	0.0960	0.133	<49.9	63.2	97.6	63.2	161	141



**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 State D A CTB  
 Hilcorp Energy Company  
 Lea County, New Mexico

Sample Identification	Date	Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCD Closure Criteria for Soils Impacted by a Release</b>			<b>10</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1,000</b>	<b>2,500</b>	<b>10,000</b>
BH07	08/05/2025	4	0.0577	0.0434	0.430	1.40	1.93	<250	866	<250	866	866	44.5
BH07	08/05/2025	5	<0.0198	<0.0198	<0.0198	<0.0397	<0.0397	<50.2	277	74.8	277	352	58.3
BH08	08/05/2025	4	<0.0199	<0.0199	0.0237	0.268	0.292	<49.8	241	135	241	376	<10.0
BH08	08/05/2025	4	<0.0198	<0.0198	<0.0198	0.182	0.182	<250	512	<250	512	512	<10.0
BH09	08/05/2025	2	<0.0204	<0.0204	<0.0204	0.171	0.171	<50.0	327	53.3	327	380	<10.0
BH09	08/05/2025	5	<0.0202	<0.0202	<0.0202	0.355	0.355	<50.0	257	68.5	257	326	24.4
BH10	08/05/2025	4	1.47	0.439	4.10	74.5	80.5	1,590	5,370	<500	6,960	6,960	<9.98
BH10	08/05/2025	5	<0.0200	<0.0200	0.0276	2.21	2.24	<49.9	302	89.7	302	392	<9.92
BH11	08/05/2025	4	<0.0198	<0.0198	<0.0198	0.291	0.291	<50.0	263	94.6	263	358	17.4
<b>Excavation Floor Soil Samples</b>													
FS01	08/22/2025	5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	24.1
FS02	08/27/2025	6	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	85.9	11.4	85.9	97.3	32.0
FS03	08/26/2025	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FS04	08/26/2025	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS05	08/26/2025	5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	49.4	40.1	49.4	89.5	32.0
FS06	08/26/2025	5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	557	256	557	813	32.0
FS07	08/26/2025	5	<0.050	<0.050	<0.050	<0.150	<0.300	12.6	918	268	931	1,199	48.0
FS08	08/26/2025	5	<0.050	<0.050	<0.050	<0.150	<0.300	38.5	2,000	559	2,040	2,598	80.0
FS08A	09/04/2025	6	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	189	32.9	189	222	48.0
FS09	08/26/2025	2	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	295	138	295	433	<16.0
FS10	08/26/2025	2	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	272	92.8	272	365	48.0
FS11	08/27/2025	2	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	125	101	125	226	64.0
FS12	08/27/2025	4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	200	120	200	220	48.0
FS13	09/04/2025	2	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	109	55.0	109	164	<16.0
FS14	09/04/2025	2	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	158	94.9	158	253	<16.0
FS15	09/04/2025	2	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	354	267	354	621	<16.0
FS16	09/04/2025	2	<0.050	<0.050	<0.050	0.325	0.325	<50.0	844	435	844	1,280	32.0
FS17	09/04/2025	2	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	101	91.3	101	192	<16.0
FS18	09/04/2025	2	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	97.6	93.3	98	191	<16.0
FS19	09/04/2025	2	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0



<b>TABLE 1</b> <b>SOIL SAMPLE ANALYTICAL RESULTS</b> State D A CTB Hilcorp Energy Company Lea County, New Mexico													
Sample Identification	Date	Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCDClosure Criteria for Soils Impacted by a Release</b>			<b>10</b>	NE	NE	NE	<b>50</b>	NE	NE	NE	<b>1,000</b>	<b>2,500</b>	<b>10,000</b>
<b>Excavation Sidewall Soil Samples</b>													
SW01	08/26/2025	0 - 5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	84.9	87.5	84.9	172	<16.0
SW02	08/26/2025	0 - 5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	94.1	84.7	94.1	179	<16.0
SW03	08/26/2025	0 - 5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	626	268	626	894	32.0
SW03A	09/04/2025	0 - 7	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	126	117	126	243	<16.0
SW04	08/27/2025	0 - 2	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	363	238	363	601	<16.0
SW04A	09/04/2025	0 - 2	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	367	142	367	509	<16.0
SW05	08/27/2025	0 - 4	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	101	101	101	202	<16.0

**Notes:**

bgs: Below ground surface

mg/kg: Milligrams per kilogram

NE: Not Established

NMOCDC: New Mexico Oil Conservation Division

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

<: Indicates result less than the stated laboratory reporting limit (RL)

Concentrations in **bold** and shaded exceed the New Mexico Oil Conservation Division Table I Closure Criteria for Soils Impacted by a Release

Grey text represents samples that have been excavated



APPENDIX A  
Photographic Log

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**Photographic Log**  
Hilcorp Energy Company  
State D A CTB  
Lea County, New Mexico



Photograph: 1 Date: 3/5/2025  
Description: Soil staining within release  
View: Northeast

Photograph: 2 Date: 3/5/2025  
Description: Soil staining within release  
View: Southeast



Photograph: 3 Date: 3/5/2025  
Description: Soil staining within release  
View: East

Photograph: 4 Date: 3/5/2025  
Description: Assessment sample location SS02  
View: Southeast





**Photographic Log**  
Hilcorp Energy Company  
State D A CTB  
Lea County, New Mexico



Photograph: 9 Date: 8/5/2025  
Description: Delineation activities facing BH-07  
View: Northeast



Photograph: 10 Date: 8/22/2025  
Description: Excavation activities near FS19  
View: Southwest



Photograph: 11 Date: 8/22/2025  
Description: Excavation activities near FS17  
View: Southeast



Photograph: 12 Date: 8/26/2025  
Description: Excavation activities near SW01  
View: Northeast



**Photographic Log**  
Hilcorp Energy Company  
State D A CTB  
Lea County, New Mexico

238°SW (T) LAT: 32.476674 LON: -103.172412 ±13ft ▲ 3462ft



State D A CTB  
Ensolium, LLC 26 Aug 2025, 16:16:46 MDT

57°NE (T) LAT: 32.476551 LON: -103.172659 ±6ft ▲ 3462ft



State D A CTB  
Ensolium, LLC 27 Aug 2025, 10:45:19 MDT

Photograph: 13 Date: 8/26/2025  
Description: Excavation activities near FS13  
View: Southwest

Photograph: 14 Date: 8/27/2025  
Description: Excavation activities near FS02  
View: Northeast

251°W (T) LAT: 32.476672 LON: -103.172336 ±16ft ▲ 3465ft



State D A CTB  
Ensolium, LLC 29 Aug 2025, 14:33:06 MDT

110°E (T) LAT: 32.476698 LON: -103.172677 ±6ft ▲ 3473ft



State D A CTB  
Ensolium, LLC 29 Aug 2025, 15:10:55 MDT

Photograph: 15 Date: 8/29/2025  
Description: Excavation activities near SW04  
View: West

Photograph: 16 Date: 8/29/2025  
Description: Excavation activities near SS03  
View: East



**Photographic Log**  
Hilcorp Energy Company  
State D A CTB  
Lea County, New Mexico

100°E (T) LAT: 32.476664 LON: -103.172691 ±36ft ▲ 3476ft



State D A CTB  
Ensolium, LLC 02 Sep 2025, 12:20:51 MDT

239°SW (T) LAT: 32.476641 LON: -103.172357 ±29ft ▲ 3461ft



State D A CTB  
Ensolium, LLC 04 Sep 2025, 09:44:09 MDT

Photograph: 17 Date: 9/2/2025  
Description: Excavation activities near SW04  
View: East

Photograph: 18 Date: 9/4/2025  
Description: Excavation activities near FS19  
View: Southwest

37°NE (T) LAT: 32.476486 LON: -103.172660 ±6ft ▲ 3460ft



State D A CTB  
Ensolium, LLC 04 Sep 2025, 17:14:28 MDT

17°N (T) LAT: 32.476533 LON: -103.172517 ±6ft ▲ 3453ft



State D A CTB  
Ensolium, LLC 04 Sep 2025, 17:17:50 MDT

Photograph: 19 Date: 9/4/2025  
Description: Excavation activities near SW01  
View: Northeast

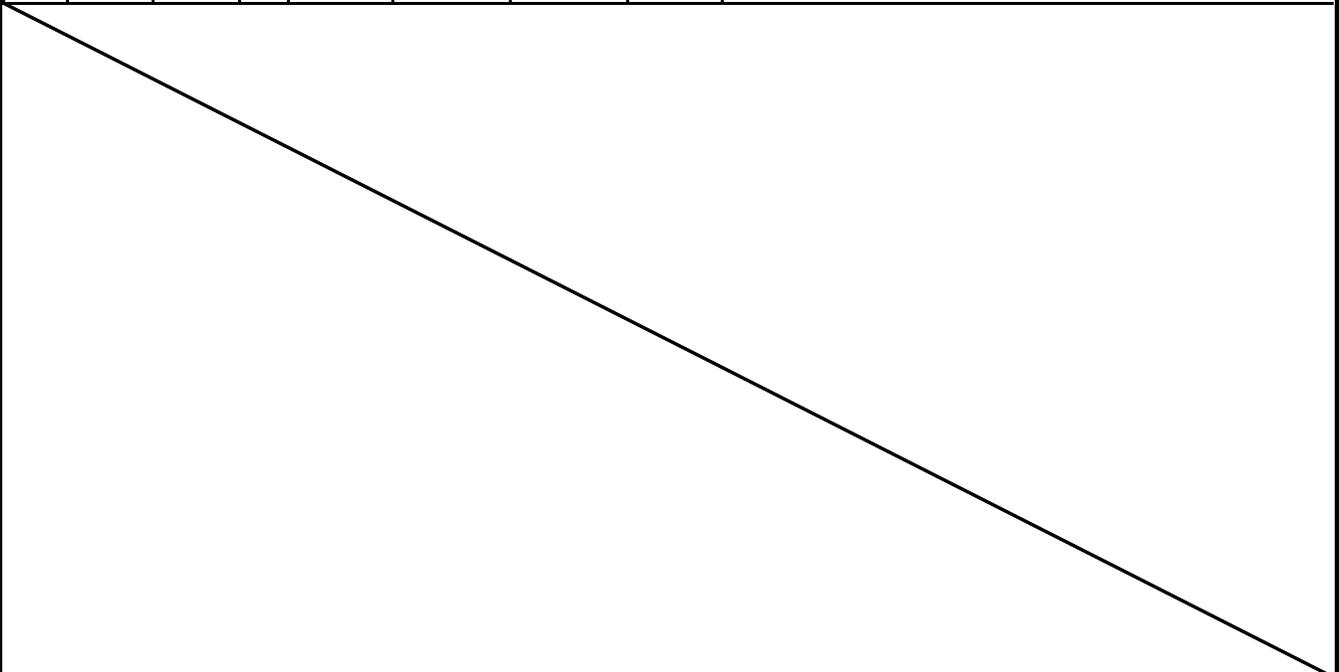
Photograph: 20 Date: 9/4/2025  
Description: Excavation activities near FS06  
View: North



## APPENDIX B

# Lithologic Soil Sampling Logs

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							Sample Name: BH04		Date: 08/05/2025	
							Site Name: State D A CTB			
							Incident Number: nAPP2505326850			
							Job Number: 07A1988176			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>							Logged By: Shane Diller		Method: Hand Auger	
Coordinates: 32.476737, -103.172481							Hole Diameter: 4"		Total Depth: 5'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% chloride correction factor is included.										
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions		
						0	CCHE	(0-1') CALICHE, tan, fine grained		
M	ND	0.0		BH04	1	1	SP	(1-5') SAND, reddish brown, no odor		
M	ND	0.0			2	2				
M	ND	0.0			3	3				
M	ND	0.0			4	4				
M	ND	0.0		BH04	5	5				
										

							Sample Name: BH05		Date: 08/05/2025	
							Site Name: State D A CTB			
							Incident Number: nAPP2505326850			
							Job Number: 07A1988176			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>							Logged By: Shane Diller		Method: Hand Auger	
Coordinates: 32.476644, -103.172477							Hole Diameter: 4"		Total Depth: 4'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% chloride correction factor is included.										
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions		
						0	CCHE	(0-1') CALICHE, tan, fine grained		
M	ND	797		BH05	1	1	SP	(1-4') SAND, reddish brown, slight odor		
M	ND	98.3			2	2				
M	ND	46.7			3	3		(@3') no odor		
M	ND	47.2		BH05	4	4				

							Sample Name: BH06		Date: 08/05/2025	
							Site Name: State D A CTB			
							Incident Number: nAPP2505326850			
							Job Number: 07A1988176			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>							Logged By: Shane Diller		Method: Hand Auger	
Coordinates: 32.476545, -103.172477							Hole Diameter: 4"		Total Depth: 5'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% chloride correction factor is included.										
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions		
						0	CCHE	(0-1') CALICHE, tan, fine grained		
	397	496		BH06	1	1	SP	(1-5') SAND, reddish brown, slight odor		
	ND	175			2	2				
	ND	175			3	3				
	ND	134			4	4		(@4') no odor		
	347	132		BH06	5	5				

							Sample Name: BH07		Date: 08/05/2025	
							Site Name: State D A CTB			
							Incident Number: nAPP2505326850			
							Job Number: 07A1988176			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>							Logged By: Shane Diller		Method: Hand Auger	
Coordinates: 32.476631, -103.172519							Hole Diameter: 4"		Total Depth: 5'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% chloride correction factor is included.										
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions		
						0	CCHE	(0-1') CALICHE, tan, fine grained		
M	ND	530		BH07	1	1	SP	(1-5') SAND, reddish brown, slight odor		
M	ND	383			2	2				
M	ND	384			3	3				
M	ND	240			4	4		(@4') no odor		
M	ND	128		BH07	5	5				

							Sample Name: BH08		Date: 08/05/2025	
							Site Name: State D A CTB			
							Incident Number: nAPP2505326850			
							Job Number: 07A1988176			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>							Logged By: Shane Diller		Method: Hand Auger	
Coordinates: 32.476573, -103.172522							Hole Diameter: 4"		Total Depth: 4'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% chloride correction factor is included.										
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions		
						0	CCHE	(0-1') CALICHE, tan, fine grained		
M	ND	206		BH08	1	1	SP	(1-4') SAND, reddish brown, no odor		
M	ND	5.9				2				
M	ND	30.1				3				
M	ND	102		BH08	4	4				

					Sample Name: BH09		Date: 08/05/2025	
					Site Name: State D A CTB			
					Incident Number: nAPP2505326850			
					Job Number: 07A1988176			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>					Logged By: Shane Diller		Method: Hand Auger	
Coordinates: 32.476621, -103.172620					Hole Diameter: 4"		Total Depth: 5'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% chloride correction factor is included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	ND	71.4		BH09	1	1	SP	(0-1') CALICHE, tan, fine grained (1-5') SAND, reddish brown, no odor
M	ND	208			2	2		
M	ND	174			3	3		
M	ND	161			4	4		
M	ND	16.0		BH09	5	5		

					Sample Name: BH10		Date: 08/05/2025	
					Site Name: State D A CTB			
					Incident Number: nAPP2505326850			
					Job Number: 07A1988176			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>					Logged By: Shane Diller		Method: Hand Auger	
Coordinates: 32.476553, -103.172608					Hole Diameter: 4"		Total Depth: 5'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% chloride correction factor is included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	ND	4,222		BH10	1	1	SP	(0-1') CALICHE, tan, fine grained (1-5') SAND, reddish brown, with odor
M	ND	2,390			2	2		
M	ND	225.6			3	3		(@3') no odor
M	ND	930.1			4	4		
M	ND	114.3		BH10	5	5		

					Sample Name: BH11		Date: 08/05/2025	
					Site Name: State D A CTB			
					Incident Number: nAPP2505326850			
					Job Number: 07A1988176			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>					Logged By: Shane Diller		Method: Hand Auger	
Coordinates: 32.476596, -103.172424					Hole Diameter: 4"		Total Depth: 1'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% chloride correction factor is included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
					0	0	CCHE	(0-1') CALICHE, tan, fine grained
M	ND	0.2		BH11	1	1	SP	(@1') SAND, reddish brown, no odor
<div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; width: 100%; height: 100%; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black;"></div> </div>								



## APPENDIX C

# Laboratory Analytical Reports & Chain-of-Custody Documentation

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Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Kalei Jennings  
Ensolum

601 N. Marienfeld St.  
Suite 400

Midland, Texas 79701

Generated 8/11/2025 3:28:47 PM

## JOB DESCRIPTION

State D A CTB  
Lea CO NM

## JOB NUMBER

880-61170-1

Eurofins Midland  
1211 W. Florida Ave  
Midland TX 79701

See page two for job notes and contact information.



# Eurofins Midland

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



Generated  
8/11/2025 3:28:47 PM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

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Client: Ensolum  
Project/Site: State D A CTB

Laboratory Job ID: 880-61170-1  
SDG: Lea CO NM

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## Definitions/Glossary

Client: Ensolum  
 Project/Site: State D A CTB

Job ID: 880-61170-1  
 SDG: Lea CO NM

### Qualifiers

#### GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

#### GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

#### HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: Ensolum  
Project: State D A CTB

Job ID: 880-61170-1

**Job ID: 880-61170-1**

**Eurofins Midland**

### Job Narrative 880-61170-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

#### Receipt

The samples were received on 8/6/2025 9:13 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.7°C.

#### GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: BH-08 (880-61170-9), BH-09 (880-61170-11), BH-09 (880-61170-12), BH-10 (880-61170-13), BH-10 (880-61170-14) and BH-11 (880-61170-15). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: BH-05 (880-61170-3), BH-05 (880-61170-4), BH-06 (880-61170-5), BH-06 (880-61170-6), BH-07 (880-61170-7) and BH-07 (880-61170-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The following samples were diluted due to the nature of the sample matrix: BH-08 (880-61170-9), BH-08 (880-61170-10), BH-09 (880-61170-11), BH-09 (880-61170-12), BH-10 (880-61170-13), BH-10 (880-61170-14) and BH-11 (880-61170-15). Elevated reporting limits (RLs) are provided.

Method 8021B: The following samples were diluted due to the nature of the sample matrix: BH-05 (880-61170-4), BH-06 (880-61170-5), BH-06 (880-61170-6), BH-07 (880-61170-7) and BH-07 (880-61170-8). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### Diesel Range Organics

Method 8015MOD\_NM: The surrogate recovery for the blank associated with preparation batch 880-116004 and analytical batch 880-116284 was outside the upper control limits.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: BH-04 (880-61170-1) and BH-04 (880-61170-2). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: BH-05 (880-61170-3), BH-06 (880-61170-5), BH-07 (880-61170-7) and BH-08 (880-61170-10). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: BH-10 (880-61170-13). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### HPLC/IC

Method 300\_ORGFM\_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-116013 and analytical batch 880-116027 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS)

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## Case Narrative

Client: Ensolum  
Project: State D A CTB

Job ID: 880-61170-1

**Job ID: 880-61170-1 (Continued)**

**Eurofins Midland**

recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Eurofins Midland

### Client Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

Client Sample ID: BH-04

Lab Sample ID: 880-61170-1

Date Collected: 08/05/25 14:22

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 1

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/06/25 11:26	08/06/25 22:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/06/25 11:26	08/06/25 22:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/06/25 11:26	08/06/25 22:56	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		08/06/25 11:26	08/06/25 22:56	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/06/25 11:26	08/06/25 22:56	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/06/25 11:26	08/06/25 22:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	08/06/25 11:26	08/06/25 22:56	1
1,4-Difluorobenzene (Surr)	94		70 - 130	08/06/25 11:26	08/06/25 22:56	1

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			08/06/25 22:56	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			08/08/25 18:13	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1	mg/Kg		08/06/25 13:53	08/08/25 18:13	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg		08/06/25 13:53	08/08/25 18:13	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		08/06/25 13:53	08/08/25 18:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	08/06/25 13:53	08/08/25 18:13	1
o-Terphenyl	133	S1+	70 - 130	08/06/25 13:53	08/08/25 18:13	1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.1	U	10.1	mg/Kg			08/07/25 00:13	1

Client Sample ID: BH-04

Lab Sample ID: 880-61170-2

Date Collected: 08/05/25 14:30

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 5

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/06/25 11:26	08/06/25 23:16	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/06/25 11:26	08/06/25 23:16	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/06/25 11:26	08/06/25 23:16	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/06/25 11:26	08/06/25 23:16	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/06/25 11:26	08/06/25 23:16	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/06/25 11:26	08/06/25 23:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130	08/06/25 11:26	08/06/25 23:16	1

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### Client Sample Results

Client: Ensolium  
 Project/Site: State D A CTB

Job ID: 880-61170-1  
 SDG: Lea CO NM

**Client Sample ID: BH-04**

**Lab Sample ID: 880-61170-2**

Date Collected: 08/05/25 14:30

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 5

**Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	104		70 - 130	08/06/25 11:26	08/06/25 23:16	1

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/06/25 23:16	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/08/25 18:59	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/06/25 13:53	08/08/25 18:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/06/25 13:53	08/08/25 18:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/06/25 13:53	08/08/25 18:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130	08/06/25 13:53	08/08/25 18:59	1
o-Terphenyl	131	S1+	70 - 130	08/06/25 13:53	08/08/25 18:59	1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16.5		10.0	mg/Kg			08/07/25 00:36	1

**Client Sample ID: BH-05**

**Lab Sample ID: 880-61170-3**

Date Collected: 08/05/25 09:34

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 1

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.106		0.0495	mg/Kg		08/07/25 09:07	08/07/25 13:18	25
Toluene	0.508		0.0495	mg/Kg		08/07/25 09:07	08/07/25 13:18	25
Ethylbenzene	0.873		0.404	mg/Kg		08/06/25 11:26	08/07/25 00:18	200
m-Xylene & p-Xylene	1.57		0.808	mg/Kg		08/06/25 11:26	08/07/25 00:18	200
o-Xylene	0.844		0.404	mg/Kg		08/06/25 11:26	08/07/25 00:18	200
Xylenes, Total	2.41		0.808	mg/Kg		08/06/25 11:26	08/07/25 00:18	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	08/06/25 11:26	08/07/25 00:18	200
1,4-Difluorobenzene (Surr)	88		70 - 130	08/06/25 11:26	08/07/25 00:18	200

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	3.90		0.808	mg/Kg			08/07/25 13:18	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1610		250	mg/Kg			08/08/25 19:14	1

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### Client Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

**Client Sample ID: BH-05**

**Lab Sample ID: 880-61170-3**

Date Collected: 08/05/25 09:34

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250	mg/Kg		08/06/25 13:53	08/08/25 19:14	5
<b>Diesel Range Organics (Over C10-C28)</b>	<b>1610</b>		250	mg/Kg		08/06/25 13:53	08/08/25 19:14	5
Oil Range Organics (Over C28-C36)	<250	U	250	mg/Kg		08/06/25 13:53	08/08/25 19:14	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130			08/06/25 13:53	08/08/25 19:14	5
o-Terphenyl	154	S1+	70 - 130			08/06/25 13:53	08/08/25 19:14	5

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	37.8		10.1	mg/Kg			08/07/25 00:44	1

**Client Sample ID: BH-05**

**Lab Sample ID: 880-61170-4**

Date Collected: 08/05/25 09:40

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 4

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0201	U	0.0201	mg/Kg		08/07/25 09:07	08/07/25 13:38	10
Toluene	<0.0201	U	0.0201	mg/Kg		08/07/25 09:07	08/07/25 13:38	10
Ethylbenzene	<0.0201	U	0.0201	mg/Kg		08/07/25 09:07	08/07/25 13:38	10
<b>m-Xylene &amp; p-Xylene</b>	<b>0.0523</b>		0.0402	mg/Kg		08/07/25 09:07	08/07/25 13:38	10
o-Xylene	<0.0201	U	0.0201	mg/Kg		08/07/25 09:07	08/07/25 13:38	10
<b>Xylenes, Total</b>	<b>0.0523</b>		0.0402	mg/Kg		08/07/25 09:07	08/07/25 13:38	10
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	161	S1+	70 - 130			08/07/25 09:07	08/07/25 13:38	10
1,4-Difluorobenzene (Surr)	76		70 - 130			08/07/25 09:07	08/07/25 13:38	10

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0523		0.0402	mg/Kg			08/07/25 13:38	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	142		50.0	mg/Kg			08/08/25 19:29	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/06/25 13:53	08/08/25 19:29	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>86.9</b>		50.0	mg/Kg		08/06/25 13:53	08/08/25 19:29	1
<b>Oil Range Organics (Over C28-C36)</b>	<b>54.7</b>		50.0	mg/Kg		08/06/25 13:53	08/08/25 19:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			08/06/25 13:53	08/08/25 19:29	1
o-Terphenyl	120		70 - 130			08/06/25 13:53	08/08/25 19:29	1

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### Client Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

**Client Sample ID: BH-05**

**Lab Sample ID: 880-61170-4**

Date Collected: 08/05/25 09:40

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 4

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.2		10.1	mg/Kg			08/07/25 00:51	1

**Client Sample ID: BH-06**

**Lab Sample ID: 880-61170-5**

Date Collected: 08/05/25 10:10

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 1

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0202	U	0.0202	mg/Kg		08/07/25 09:07	08/07/25 13:59	10
Toluene	0.0275		0.0202	mg/Kg		08/07/25 09:07	08/07/25 13:59	10
Ethylbenzene	0.221		0.0202	mg/Kg		08/07/25 09:07	08/07/25 13:59	10
m-Xylene & p-Xylene	1.38		0.0404	mg/Kg		08/07/25 09:07	08/07/25 13:59	10
o-Xylene	1.11		0.0202	mg/Kg		08/07/25 09:07	08/07/25 13:59	10
Xylenes, Total	2.49		0.0404	mg/Kg		08/07/25 09:07	08/07/25 13:59	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	348	S1+	70 - 130	08/07/25 09:07	08/07/25 13:59	10
1,4-Difluorobenzene (Surr)	70		70 - 130	08/07/25 09:07	08/07/25 13:59	10

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	2.74		0.0404	mg/Kg			08/07/25 13:59	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	2090		249	mg/Kg			08/08/25 19:44	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<249	U	249	mg/Kg		08/06/25 13:53	08/08/25 19:44	5
Diesel Range Organics (Over C10-C28)	2090		249	mg/Kg		08/06/25 13:53	08/08/25 19:44	5
Oil Range Organics (Over C28-C36)	<249	U	249	mg/Kg		08/06/25 13:53	08/08/25 19:44	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130	08/06/25 13:53	08/08/25 19:44	5
o-Terphenyl	163	S1+	70 - 130	08/06/25 13:53	08/08/25 19:44	5

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	149		10.1	mg/Kg			08/07/25 00:59	1

### Client Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

**Client Sample ID: BH-06**

**Lab Sample ID: 880-61170-6**

Date Collected: 08/05/25 10:43

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 5

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0199	U	0.0199	mg/Kg		08/07/25 09:07	08/07/25 14:19	10
<b>Toluene</b>	<b>0.0365</b>		0.0199	mg/Kg		08/07/25 09:07	08/07/25 14:19	10
Ethylbenzene	<0.0199	U	0.0199	mg/Kg		08/07/25 09:07	08/07/25 14:19	10
<b>m-Xylene &amp; p-Xylene</b>	<b>0.0660</b>		0.0398	mg/Kg		08/07/25 09:07	08/07/25 14:19	10
<b>o-Xylene</b>	<b>0.0300</b>		0.0199	mg/Kg		08/07/25 09:07	08/07/25 14:19	10
<b>Xylenes, Total</b>	<b>0.0960</b>		0.0398	mg/Kg		08/07/25 09:07	08/07/25 14:19	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	181	S1+	70 - 130	08/07/25 09:07	08/07/25 14:19	10
1,4-Difluorobenzene (Surr)	75		70 - 130	08/07/25 09:07	08/07/25 14:19	10

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total BTEX</b>	<b>0.133</b>		0.0398	mg/Kg			08/07/25 14:19	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>161</b>		49.9	mg/Kg			08/08/25 19:59	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/06/25 13:53	08/08/25 19:59	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>63.2</b>		49.9	mg/Kg		08/06/25 13:53	08/08/25 19:59	1
<b>Oil Range Organics (Over C28-C36)</b>	<b>97.6</b>		49.9	mg/Kg		08/06/25 13:53	08/08/25 19:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	08/06/25 13:53	08/08/25 19:59	1
o-Terphenyl	123		70 - 130	08/06/25 13:53	08/08/25 19:59	1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>141</b>		10.1	mg/Kg			08/07/25 01:22	1

**Client Sample ID: BH-07**

**Lab Sample ID: 880-61170-7**

Date Collected: 08/05/25 11:12

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 1

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Benzene</b>	<b>0.0577</b>		0.0200	mg/Kg		08/07/25 09:07	08/07/25 14:40	10
<b>Toluene</b>	<b>0.0431</b>		0.0200	mg/Kg		08/07/25 09:07	08/07/25 14:40	10
<b>Ethylbenzene</b>	<b>0.430</b>		0.0200	mg/Kg		08/07/25 09:07	08/07/25 14:40	10
<b>m-Xylene &amp; p-Xylene</b>	<b>0.910</b>		0.0400	mg/Kg		08/07/25 09:07	08/07/25 14:40	10
<b>o-Xylene</b>	<b>0.488</b>		0.0200	mg/Kg		08/07/25 09:07	08/07/25 14:40	10
<b>Xylenes, Total</b>	<b>1.40</b>		0.0400	mg/Kg		08/07/25 09:07	08/07/25 14:40	10

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### Client Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

**Client Sample ID: BH-07**

**Lab Sample ID: 880-61170-7**

Date Collected: 08/05/25 11:12

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	192	S1+	70 - 130	08/07/25 09:07	08/07/25 14:40	10
1,4-Difluorobenzene (Surr)	80		70 - 130	08/07/25 09:07	08/07/25 14:40	10

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	1.93		0.0400	mg/Kg			08/07/25 14:40	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	866		250	mg/Kg			08/08/25 20:14	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250	mg/Kg		08/06/25 13:53	08/08/25 20:14	5
<b>Diesel Range Organics (Over C10-C28)</b>	<b>866</b>		250	mg/Kg		08/06/25 13:53	08/08/25 20:14	5
Oil Range Organics (Over C28-C36)	<250	U	250	mg/Kg		08/06/25 13:53	08/08/25 20:14	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130	08/06/25 13:53	08/08/25 20:14	5
o-Terphenyl	143	S1+	70 - 130	08/06/25 13:53	08/08/25 20:14	5

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44.5		9.98	mg/Kg			08/07/25 01:30	1

**Client Sample ID: BH-07**

**Lab Sample ID: 880-61170-8**

Date Collected: 08/05/25 11:36

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 5

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0198	U	0.0198	mg/Kg		08/07/25 09:07	08/07/25 15:00	10
Toluene	<0.0198	U	0.0198	mg/Kg		08/07/25 09:07	08/07/25 15:00	10
Ethylbenzene	<0.0198	U	0.0198	mg/Kg		08/07/25 09:07	08/07/25 15:00	10
m-Xylene & p-Xylene	<0.0397	U	0.0397	mg/Kg		08/07/25 09:07	08/07/25 15:00	10
o-Xylene	<0.0198	U	0.0198	mg/Kg		08/07/25 09:07	08/07/25 15:00	10
Xylenes, Total	<0.0397	U	0.0397	mg/Kg		08/07/25 09:07	08/07/25 15:00	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	163	S1+	70 - 130	08/07/25 09:07	08/07/25 15:00	10
1,4-Difluorobenzene (Surr)	79		70 - 130	08/07/25 09:07	08/07/25 15:00	10

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.0397	U	0.0397	mg/Kg			08/07/25 15:00	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	352		50.2	mg/Kg			08/11/25 14:37	1

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### Client Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

**Client Sample ID: BH-07**

**Lab Sample ID: 880-61170-8**

Date Collected: 08/05/25 11:36

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 5

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2	mg/Kg		08/11/25 11:28	08/11/25 14:37	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>277</b>		50.2	mg/Kg		08/11/25 11:28	08/11/25 14:37	1
<b>Oil Range Organics (Over C28-C36)</b>	<b>74.8</b>		50.2	mg/Kg		08/11/25 11:28	08/11/25 14:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130			08/11/25 11:28	08/11/25 14:37	1
o-Terphenyl	108		70 - 130			08/11/25 11:28	08/11/25 14:37	1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>58.3</b>		9.96	mg/Kg			08/07/25 01:37	1

**Client Sample ID: BH-08**

**Lab Sample ID: 880-61170-9**

Date Collected: 08/05/25 11:50

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 1

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0199	U	0.0199	mg/Kg		08/07/25 09:02	08/07/25 12:47	10
Toluene	<0.0199	U	0.0199	mg/Kg		08/07/25 09:02	08/07/25 12:47	10
<b>Ethylbenzene</b>	<b>0.0237</b>		0.0199	mg/Kg		08/07/25 09:02	08/07/25 12:47	10
<b>m-Xylene &amp; p-Xylene</b>	<b>0.163</b>		0.0398	mg/Kg		08/07/25 09:02	08/07/25 12:47	10
<b>o-Xylene</b>	<b>0.105</b>		0.0199	mg/Kg		08/07/25 09:02	08/07/25 12:47	10
<b>Xylenes, Total</b>	<b>0.268</b>		0.0398	mg/Kg		08/07/25 09:02	08/07/25 12:47	10
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130			08/07/25 09:02	08/07/25 12:47	10
1,4-Difluorobenzene (Surr)	105		70 - 130			08/07/25 09:02	08/07/25 12:47	10

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total BTEX</b>	<b>0.292</b>		0.0398	mg/Kg			08/07/25 12:47	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>376</b>		49.8	mg/Kg			08/11/25 14:53	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		08/11/25 11:28	08/11/25 14:53	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>241</b>		49.8	mg/Kg		08/11/25 11:28	08/11/25 14:53	1
<b>Oil Range Organics (Over C28-C36)</b>	<b>135</b>		49.8	mg/Kg		08/11/25 11:28	08/11/25 14:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130			08/11/25 11:28	08/11/25 14:53	1

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### Client Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

**Client Sample ID: BH-08**

**Lab Sample ID: 880-61170-9**

Date Collected: 08/05/25 11:50

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	107		70 - 130	08/11/25 11:28	08/11/25 14:53	1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	mg/Kg			08/07/25 01:45	1

**Client Sample ID: BH-08**

**Lab Sample ID: 880-61170-10**

Date Collected: 08/05/25 11:56

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 4

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0198	U	0.0198	mg/Kg		08/07/25 09:02	08/07/25 13:08	10
Toluene	<0.0198	U	0.0198	mg/Kg		08/07/25 09:02	08/07/25 13:08	10
Ethylbenzene	<0.0198	U	0.0198	mg/Kg		08/07/25 09:02	08/07/25 13:08	10
<i>m</i> -Xylene & <i>p</i> -Xylene	0.113		0.0396	mg/Kg		08/07/25 09:02	08/07/25 13:08	10
<i>o</i> -Xylene	0.0686		0.0198	mg/Kg		08/07/25 09:02	08/07/25 13:08	10
Xylenes, Total	0.182		0.0396	mg/Kg		08/07/25 09:02	08/07/25 13:08	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	08/07/25 09:02	08/07/25 13:08	10
1,4-Difluorobenzene (Surr)	109		70 - 130	08/07/25 09:02	08/07/25 13:08	10

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.182		0.0396	mg/Kg			08/07/25 13:08	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	512		250	mg/Kg			08/08/25 20:59	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250	mg/Kg		08/06/25 13:53	08/08/25 20:59	5
Diesel Range Organics (Over C10-C28)	512		250	mg/Kg		08/06/25 13:53	08/08/25 20:59	5
Oil Range Organics (Over C28-C36)	<250	U	250	mg/Kg		08/06/25 13:53	08/08/25 20:59	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130	08/06/25 13:53	08/08/25 20:59	5
<i>o</i> -Terphenyl	137	S1+	70 - 130	08/06/25 13:53	08/08/25 20:59	5

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	mg/Kg			08/07/25 01:53	1

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### Client Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

**Client Sample ID: BH-09**

**Lab Sample ID: 880-61170-11**

Date Collected: 08/05/25 12:32

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 2

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0201	U	0.0201	mg/Kg		08/07/25 09:02	08/07/25 13:28	10
Toluene	<0.0201	U	0.0201	mg/Kg		08/07/25 09:02	08/07/25 13:28	10
Ethylbenzene	<0.0201	U	0.0201	mg/Kg		08/07/25 09:02	08/07/25 13:28	10
m-Xylene & p-Xylene	<0.0402	U	0.0402	mg/Kg		08/07/25 09:02	08/07/25 13:28	10
<b>o-Xylene</b>	<b>0.171</b>		0.0201	mg/Kg		08/07/25 09:02	08/07/25 13:28	10
<b>Xylenes, Total</b>	<b>0.171</b>		0.0402	mg/Kg		08/07/25 09:02	08/07/25 13:28	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	157	S1+	70 - 130	08/07/25 09:02	08/07/25 13:28	10
1,4-Difluorobenzene (Surr)	79		70 - 130	08/07/25 09:02	08/07/25 13:28	10

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total BTEX</b>	<b>0.171</b>		0.0402	mg/Kg			08/07/25 13:28	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>380</b>		50.0	mg/Kg			08/08/25 21:29	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/06/25 13:53	08/08/25 21:29	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>327</b>		50.0	mg/Kg		08/06/25 13:53	08/08/25 21:29	1
<b>Oil Range Organics (Over C28-C36)</b>	<b>53.3</b>		50.0	mg/Kg		08/06/25 13:53	08/08/25 21:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130	08/06/25 13:53	08/08/25 21:29	1
o-Terphenyl	124		70 - 130	08/06/25 13:53	08/08/25 21:29	1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U F1	10.0	mg/Kg			08/07/25 02:00	1

**Client Sample ID: BH-09**

**Lab Sample ID: 880-61170-12**

Date Collected: 08/05/25 13:50

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 5

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0202	U	0.0202	mg/Kg		08/07/25 09:02	08/07/25 13:49	10
Toluene	<0.0202	U	0.0202	mg/Kg		08/07/25 09:02	08/07/25 13:49	10
Ethylbenzene	<0.0202	U	0.0202	mg/Kg		08/07/25 09:02	08/07/25 13:49	10
m-Xylene & p-Xylene	<0.0404	U	0.0404	mg/Kg		08/07/25 09:02	08/07/25 13:49	10
<b>o-Xylene</b>	<b>0.355</b>		0.0202	mg/Kg		08/07/25 09:02	08/07/25 13:49	10
<b>Xylenes, Total</b>	<b>0.355</b>		0.0404	mg/Kg		08/07/25 09:02	08/07/25 13:49	10

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### Client Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

**Client Sample ID: BH-09**

**Lab Sample ID: 880-61170-12**

Date Collected: 08/05/25 13:50

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	144	S1+	70 - 130	08/07/25 09:02	08/07/25 13:49	10
1,4-Difluorobenzene (Surr)	95		70 - 130	08/07/25 09:02	08/07/25 13:49	10

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total BTEX</b>	<b>0.355</b>		0.0404	mg/Kg			08/07/25 13:49	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>326</b>		50.0	mg/Kg			08/08/25 21:43	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/06/25 13:53	08/08/25 21:43	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>257</b>		50.0	mg/Kg		08/06/25 13:53	08/08/25 21:43	1
<b>Oil Range Organics (Over C28-C36)</b>	<b>68.5</b>		50.0	mg/Kg		08/06/25 13:53	08/08/25 21:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130	08/06/25 13:53	08/08/25 21:43	1
o-Terphenyl	122		70 - 130	08/06/25 13:53	08/08/25 21:43	1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Chloride</b>	<b>24.4</b>		10.1	mg/Kg			08/07/25 02:23	1

**Client Sample ID: BH-10**

**Lab Sample ID: 880-61170-13**

Date Collected: 08/05/25 13:12

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 1

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Benzene</b>	<b>1.47</b>		0.0199	mg/Kg		08/07/25 09:02	08/07/25 14:09	10
<b>Toluene</b>	<b>0.439</b>		0.397	mg/Kg		08/07/25 09:02	08/07/25 20:41	200
<b>Ethylbenzene</b>	<b>4.10</b>		0.397	mg/Kg		08/07/25 09:02	08/07/25 20:41	200
<b>m-Xylene &amp; p-Xylene</b>	<b>8.07</b>		0.794	mg/Kg		08/07/25 09:02	08/07/25 20:41	200
<b>o-Xylene</b>	<b>66.4</b>		0.397	mg/Kg		08/07/25 09:02	08/07/25 20:41	200
<b>Xylenes, Total</b>	<b>74.5</b>		0.794	mg/Kg		08/07/25 09:02	08/07/25 20:41	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	1813	S1+	70 - 130	08/07/25 09:02	08/07/25 14:09	10
1,4-Difluorobenzene (Surr)	95		70 - 130	08/07/25 09:02	08/07/25 14:09	10

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total BTEX</b>	<b>80.5</b>		0.794	mg/Kg			08/07/25 20:41	1

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### Client Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

**Client Sample ID: BH-10**

**Lab Sample ID: 880-61170-13**

Date Collected: 08/05/25 13:12

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	6960		500	mg/Kg			08/08/25 22:00	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1590		500	mg/Kg		08/06/25 13:53	08/08/25 22:00	10
Diesel Range Organics (Over C10-C28)	5370		500	mg/Kg		08/06/25 13:53	08/08/25 22:00	10
Oil Range Organics (Over C28-C36)	<500	U	500	mg/Kg		08/06/25 13:53	08/08/25 22:00	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	192	S1+	70 - 130			08/06/25 13:53	08/08/25 22:00	10
o-Terphenyl	236	S1+	70 - 130			08/06/25 13:53	08/08/25 22:00	10

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<9.98	U	9.98	mg/Kg			08/07/25 02:31	1

**Client Sample ID: BH-10**

**Lab Sample ID: 880-61170-14**

Date Collected: 08/05/25 13:42

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 5

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0200	U	0.0200	mg/Kg		08/07/25 09:02	08/07/25 14:29	10
Toluene	<0.0200	U	0.0200	mg/Kg		08/07/25 09:02	08/07/25 14:29	10
Ethylbenzene	0.0276		0.0200	mg/Kg		08/07/25 09:02	08/07/25 14:29	10
m-Xylene & p-Xylene	0.0490		0.0400	mg/Kg		08/07/25 09:02	08/07/25 14:29	10
o-Xylene	2.16		0.0200	mg/Kg		08/07/25 09:02	08/07/25 14:29	10
Xylenes, Total	2.21		0.0400	mg/Kg		08/07/25 09:02	08/07/25 14:29	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	114		70 - 130			08/07/25 09:02	08/07/25 14:29	10
1,4-Difluorobenzene (Surr)	143	S1+	70 - 130			08/07/25 09:02	08/07/25 14:29	10

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	2.24		0.0400	mg/Kg			08/07/25 14:29	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	392		49.9	mg/Kg			08/08/25 22:15	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/06/25 13:53	08/08/25 22:15	1
Diesel Range Organics (Over C10-C28)	302		49.9	mg/Kg		08/06/25 13:53	08/08/25 22:15	1
Oil Range Organics (Over C28-C36)	89.7		49.9	mg/Kg		08/06/25 13:53	08/08/25 22:15	1

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### Client Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

**Client Sample ID: BH-10**

**Lab Sample ID: 880-61170-14**

Date Collected: 08/05/25 13:42

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	08/06/25 13:53	08/08/25 22:15	1
o-Terphenyl	115		70 - 130	08/06/25 13:53	08/08/25 22:15	1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<9.92	U	9.92	mg/Kg			08/07/25 02:54	1

**Client Sample ID: BH-11**

**Lab Sample ID: 880-61170-15**

Date Collected: 08/05/25 14:40

Matrix: Solid

Date Received: 08/06/25 09:13

Sample Depth: 1

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0198	U	0.0198	mg/Kg		08/07/25 09:02	08/07/25 14:50	10
Toluene	<0.0198	U	0.0198	mg/Kg		08/07/25 09:02	08/07/25 14:50	10
Ethylbenzene	<0.0198	U	0.0198	mg/Kg		08/07/25 09:02	08/07/25 14:50	10
m-Xylene & p-Xylene	<0.0397	U	0.0397	mg/Kg		08/07/25 09:02	08/07/25 14:50	10
<b>o-Xylene</b>	<b>0.291</b>		0.0198	mg/Kg		08/07/25 09:02	08/07/25 14:50	10
<b>Xylenes, Total</b>	<b>0.291</b>		0.0397	mg/Kg		08/07/25 09:02	08/07/25 14:50	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	156	S1+	70 - 130	08/07/25 09:02	08/07/25 14:50	10
1,4-Difluorobenzene (Surr)	118		70 - 130	08/07/25 09:02	08/07/25 14:50	10

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total BTEX</b>	<b>0.291</b>		0.0397	mg/Kg			08/07/25 14:50	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Total TPH</b>	<b>358</b>		50.0	mg/Kg			08/08/25 22:29	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/06/25 13:53	08/08/25 22:29	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>263</b>		50.0	mg/Kg		08/06/25 13:53	08/08/25 22:29	1
<b>Oil Range Organics (Over C28-C36)</b>	<b>94.6</b>		50.0	mg/Kg		08/06/25 13:53	08/08/25 22:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	08/06/25 13:53	08/08/25 22:29	1
o-Terphenyl	113		70 - 130	08/06/25 13:53	08/08/25 22:29	1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.4		9.94	mg/Kg			08/07/25 03:01	1

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## Surrogate Summary

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

## Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
880-61170-1	BH-04	104	94
880-61170-1 MS	BH-04	101	104
880-61170-1 MSD	BH-04	108	106
880-61170-2	BH-04	89	104
880-61170-3	BH-05	120	88
880-61170-4	BH-05	161 S1+	76
880-61170-5	BH-06	348 S1+	70
880-61170-6	BH-06	181 S1+	75
880-61170-7	BH-07	192 S1+	80
880-61170-8	BH-07	163 S1+	79
880-61170-9	BH-08	133 S1+	105
880-61170-10	BH-08	120	109
880-61170-11	BH-09	157 S1+	79
880-61170-12	BH-09	144 S1+	95
880-61170-13	BH-10	1813 S1+	95
880-61170-14	BH-10	114	143 S1+
880-61170-15	BH-11	156 S1+	118
LCS 880-115979/1-A	Lab Control Sample	96	101
LCS 880-116052/1-A	Lab Control Sample	104	89
LCS 880-116055/1-A	Lab Control Sample	95	106
LCSD 880-115979/2-A	Lab Control Sample Dup	105	106
LCSD 880-116052/2-A	Lab Control Sample Dup	111	85
LCSD 880-116055/2-A	Lab Control Sample Dup	103	106
MB 880-115940/5-A	Method Blank	99	97
MB 880-115979/5-A	Method Blank	96	91
MB 880-116052/5-A	Method Blank	102	86
MB 880-116055/5-A	Method Blank	97	91

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
880-61170-1	BH-04	111	133 S1+
880-61170-1 MS	BH-04	106	112
880-61170-1 MSD	BH-04	110	114
880-61170-2	BH-04	108	131 S1+
880-61170-3	BH-05	118	154 S1+
880-61170-4	BH-05	106	120
880-61170-5	BH-06	117	163 S1+
880-61170-6	BH-06	105	123
880-61170-7	BH-07	117	143 S1+
880-61170-8	BH-07	112	108
880-61170-9	BH-08	109	107
880-61170-10	BH-08	118	137 S1+

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### Surrogate Summary

Client: Ensolum  
 Project/Site: State D A CTB

Job ID: 880-61170-1  
 SDG: Lea CO NM

**Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)**

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-61170-11	BH-09	106	124
880-61170-12	BH-09	106	122
880-61170-13	BH-10	192 S1+	236 S1+
880-61170-14	BH-10	98	115
880-61170-15	BH-11	100	113
LCS 880-116004/2-A	Lab Control Sample	114	122
LCS 880-116344/2-A	Lab Control Sample	97	101
LCSD 880-116004/3-A	Lab Control Sample Dup	115	120
LCSD 880-116344/3-A	Lab Control Sample Dup	100	101
MB 880-116004/1-A	Method Blank	121	143 S1+
MB 880-116344/1-A	Method Blank	109	105

**Surrogate Legend**

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

### QC Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

#### Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-115940/5-A  
Matrix: Solid  
Analysis Batch: 115927

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 115940

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/06/25 09:03	08/06/25 11:36	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/06/25 09:03	08/06/25 11:36	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/06/25 09:03	08/06/25 11:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/06/25 09:03	08/06/25 11:36	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/06/25 09:03	08/06/25 11:36	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/06/25 09:03	08/06/25 11:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	08/06/25 09:03	08/06/25 11:36	1
1,4-Difluorobenzene (Surr)	97		70 - 130	08/06/25 09:03	08/06/25 11:36	1

Lab Sample ID: MB 880-115979/5-A  
Matrix: Solid  
Analysis Batch: 115927

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 115979

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/06/25 11:26	08/06/25 22:34	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/06/25 11:26	08/06/25 22:34	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/06/25 11:26	08/06/25 22:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/06/25 11:26	08/06/25 22:34	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/06/25 11:26	08/06/25 22:34	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/06/25 11:26	08/06/25 22:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	08/06/25 11:26	08/06/25 22:34	1
1,4-Difluorobenzene (Surr)	91		70 - 130	08/06/25 11:26	08/06/25 22:34	1

Lab Sample ID: LCS 880-115979/1-A  
Matrix: Solid  
Analysis Batch: 115927

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 115979

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09652		mg/Kg		97	70 - 130
Toluene	0.100	0.09198		mg/Kg		92	70 - 130
Ethylbenzene	0.100	0.1046		mg/Kg		105	70 - 130
m-Xylene & p-Xylene	0.200	0.2076		mg/Kg		104	70 - 130
o-Xylene	0.100	0.1044		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-115979/2-A  
Matrix: Solid  
Analysis Batch: 115927

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 115979

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1007		mg/Kg		101	70 - 130	4	35

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### QC Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

#### Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-115979/2-A  
Matrix: Solid  
Analysis Batch: 115927

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 115979

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Toluene	0.100	0.09732		mg/Kg		97	70 - 130	6	35	
Ethylbenzene	0.100	0.1105		mg/Kg		110	70 - 130	5	35	
m-Xylene & p-Xylene	0.200	0.2210		mg/Kg		110	70 - 130	6	35	
o-Xylene	0.100	0.1112		mg/Kg		111	70 - 130	6	35	

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: 880-61170-1 MS  
Matrix: Solid  
Analysis Batch: 115927

Client Sample ID: BH-04  
Prep Type: Total/NA  
Prep Batch: 115979

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec	
									Limits	RPD
Benzene	<0.00200	U	0.100	0.09907		mg/Kg		99	70 - 130	
Toluene	<0.00200	U	0.100	0.09128		mg/Kg		91	70 - 130	
Ethylbenzene	<0.00200	U	0.100	0.09983		mg/Kg		100	70 - 130	
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1956		mg/Kg		98	70 - 130	
o-Xylene	<0.00200	U	0.100	0.09773		mg/Kg		98	70 - 130	

Surrogate	MS %Recovery	MS Qualifier	Limits
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 880-61170-1 MSD  
Matrix: Solid  
Analysis Batch: 115927

Client Sample ID: BH-04  
Prep Type: Total/NA  
Prep Batch: 115979

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits	RPD		
Benzene	<0.00200	U	0.100	0.09529		mg/Kg		95	70 - 130	4	35	
Toluene	<0.00200	U	0.100	0.08956		mg/Kg		90	70 - 130	2	35	
Ethylbenzene	<0.00200	U	0.100	0.09802		mg/Kg		98	70 - 130	2	35	
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1928		mg/Kg		96	70 - 130	1	35	
o-Xylene	<0.00200	U	0.100	0.09606		mg/Kg		96	70 - 130	2	35	

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: MB 880-116052/5-A  
Matrix: Solid  
Analysis Batch: 116035

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 116052

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00200	U	0.00200	mg/Kg		08/07/25 09:02	08/07/25 11:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/07/25 09:02	08/07/25 11:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/07/25 09:02	08/07/25 11:25	1

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### QC Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

#### Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 880-116052/5-A  
Matrix: Solid  
Analysis Batch: 116035

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 116052

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/07/25 09:02	08/07/25 11:25	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/07/25 09:02	08/07/25 11:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130			08/07/25 09:02	08/07/25 11:25	1
1,4-Difluorobenzene (Surr)	86		70 - 130			08/07/25 09:02	08/07/25 11:25	1

Lab Sample ID: LCS 880-116052/1-A  
Matrix: Solid  
Analysis Batch: 116035

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 116052

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits	
		Result	Qualifier					
Benzene	0.100	0.09343		mg/Kg		93	70 - 130	
Toluene	0.100	0.08273		mg/Kg		83	70 - 130	
Ethylbenzene	0.100	0.09266		mg/Kg		93	70 - 130	
m-Xylene & p-Xylene	0.200	0.1858		mg/Kg		93	70 - 130	
o-Xylene	0.100	0.09632		mg/Kg		96	70 - 130	
Surrogate	%Recovery		Qualifier	Limits				
4-Bromofluorobenzene (Surr)	104			70 - 130				
1,4-Difluorobenzene (Surr)	89			70 - 130				

Lab Sample ID: LCSD 880-116052/2-A  
Matrix: Solid  
Analysis Batch: 116035

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 116052

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec Limits	RPD	Limit
		Result	Qualifier						
Benzene	0.100	0.09645		mg/Kg		96	70 - 130	3	35
Toluene	0.100	0.08963		mg/Kg		90	70 - 130	8	35
Ethylbenzene	0.100	0.1001		mg/Kg		100	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.1996		mg/Kg		100	70 - 130	7	35
o-Xylene	0.100	0.1024		mg/Kg		102	70 - 130	6	35
Surrogate	%Recovery		Qualifier	Limits					
4-Bromofluorobenzene (Surr)	111			70 - 130					
1,4-Difluorobenzene (Surr)	85			70 - 130					

Lab Sample ID: MB 880-116055/5-A  
Matrix: Solid  
Analysis Batch: 116037

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 116055

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		08/07/25 09:07	08/07/25 11:34	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/07/25 09:07	08/07/25 11:34	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/07/25 09:07	08/07/25 11:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/07/25 09:07	08/07/25 11:34	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/07/25 09:07	08/07/25 11:34	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/07/25 09:07	08/07/25 11:34	1

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### QC Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

#### Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	97		70 - 130	08/07/25 09:07	08/07/25 11:34	1
1,4-Difluorobenzene (Surr)	91		70 - 130	08/07/25 09:07	08/07/25 11:34	1

Lab Sample ID: LCS 880-116055/1-A  
Matrix: Solid  
Analysis Batch: 116037

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 116055

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Benzene	0.100	0.1088		mg/Kg		109	70 - 130
Toluene	0.100	0.1053		mg/Kg		105	70 - 130
Ethylbenzene	0.100	0.1172		mg/Kg		117	70 - 130
m-Xylene & p-Xylene	0.200	0.2307		mg/Kg		115	70 - 130
o-Xylene	0.100	0.1139		mg/Kg		114	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: LCSD 880-116055/2-A  
Matrix: Solid  
Analysis Batch: 116037

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 116055

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec Limits	RPD	
		Result	Qualifier					RPD	Limit
Benzene	0.100	0.1071		mg/Kg		107	70 - 130	2	35
Toluene	0.100	0.1051		mg/Kg		105	70 - 130	0	35
Ethylbenzene	0.100	0.1167		mg/Kg		117	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.2300		mg/Kg		115	70 - 130	0	35
o-Xylene	0.100	0.1137		mg/Kg		114	70 - 130	0	35

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-116004/1-A  
Matrix: Solid  
Analysis Batch: 116284

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 116004

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/06/25 13:52	08/08/25 14:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/06/25 13:52	08/08/25 14:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/06/25 13:52	08/08/25 14:53	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	121		70 - 130	08/06/25 13:52	08/08/25 14:53	1
o-Terphenyl	143	S1+	70 - 130	08/06/25 13:52	08/08/25 14:53	1

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### QC Sample Results

Client: Ensolum  
 Project/Site: State D A CTB

Job ID: 880-61170-1  
 SDG: Lea CO NM

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

**Lab Sample ID: LCS 880-116004/2-A**  
**Matrix: Solid**  
**Analysis Batch: 116284**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 116004**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
							Lower	Upper
Gasoline Range Organics (GRO)-C6-C10	1000	1005		mg/Kg		101	70	130
Diesel Range Organics (Over C10-C28)	1000	927.1		mg/Kg		93	70	130
		<b>LCS</b>	<b>LCS</b>					
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>					
1-Chlorooctane	114		70 - 130					
o-Terphenyl	122		70 - 130					

**Lab Sample ID: LCSD 880-116004/3-A**  
**Matrix: Solid**  
**Analysis Batch: 116284**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 116004**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits		RPD	Limit
							Lower	Upper		
Gasoline Range Organics (GRO)-C6-C10	1000	1018		mg/Kg		102	70	130	1	20
Diesel Range Organics (Over C10-C28)	1000	908.7		mg/Kg		91	70	130	2	20
		<b>LCSD</b>	<b>LCSD</b>							
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>							
1-Chlorooctane	115		70 - 130							
o-Terphenyl	120		70 - 130							

**Lab Sample ID: 880-61170-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 116284**

**Client Sample ID: BH-04**  
**Prep Type: Total/NA**  
**Prep Batch: 116004**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
									Lower	Upper
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	998	884.0		mg/Kg		89	70	130
Diesel Range Organics (Over C10-C28)	<50.1	U	998	848.4		mg/Kg		83	70	130
		<b>MS</b>	<b>MS</b>							
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>							
1-Chlorooctane	106		70 - 130							
o-Terphenyl	112		70 - 130							

**Lab Sample ID: 880-61170-1 MSD**  
**Matrix: Solid**  
**Analysis Batch: 116284**

**Client Sample ID: BH-04**  
**Prep Type: Total/NA**  
**Prep Batch: 116004**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits		RPD	Limit
									Lower	Upper		
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	998	935.9		mg/Kg		94	70	130	6	20
Diesel Range Organics (Over C10-C28)	<50.1	U	998	895.3		mg/Kg		88	70	130	5	20
		<b>MSD</b>	<b>MSD</b>									
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>									
1-Chlorooctane	110		70 - 130									

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### QC Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

**Lab Sample ID: 880-61170-1 MSD**  
**Matrix: Solid**  
**Analysis Batch: 116284**

**Client Sample ID: BH-04**  
**Prep Type: Total/NA**  
**Prep Batch: 116004**

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
<i>o</i> -Terphenyl	114		70 - 130

**Lab Sample ID: MB 880-116344/1-A**  
**Matrix: Solid**  
**Analysis Batch: 116387**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 116344**

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/11/25 11:28	08/11/25 09:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/11/25 11:28	08/11/25 09:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/11/25 11:28	08/11/25 09:30	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
<i>1</i> -Chlorooctane	109		70 - 130	08/11/25 11:28	08/11/25 09:30	1
<i>o</i> -Terphenyl	105		70 - 130	08/11/25 11:28	08/11/25 09:30	1

**Lab Sample ID: LCS 880-116344/2-A**  
**Matrix: Solid**  
**Analysis Batch: 116387**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 116344**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	1000	893.7		mg/Kg		89	70 - 130
Diesel Range Organics (Over C10-C28)	1000	825.3		mg/Kg		83	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
<i>1</i> -Chlorooctane	97		70 - 130
<i>o</i> -Terphenyl	101		70 - 130

**Lab Sample ID: LCSD 880-116344/3-A**  
**Matrix: Solid**  
**Analysis Batch: 116387**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 116344**

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec Limits	RPD	
		Result	Qualifier					RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	905.9		mg/Kg		91	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	829.5		mg/Kg		83	70 - 130	1	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
<i>1</i> -Chlorooctane	100		70 - 130
<i>o</i> -Terphenyl	101		70 - 130

### QC Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-116013/1-A  
Matrix: Solid  
Analysis Batch: 116027

Client Sample ID: Method Blank  
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	mg/Kg			08/06/25 23:50	1

Lab Sample ID: LCS 880-116013/2-A  
Matrix: Solid  
Analysis Batch: 116027

Client Sample ID: Lab Control Sample  
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	249.6		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-116013/3-A  
Matrix: Solid  
Analysis Batch: 116027

Client Sample ID: Lab Control Sample Dup  
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	257.0		mg/Kg		103	90 - 110	3	20

Lab Sample ID: 880-61170-1 MS  
Matrix: Solid  
Analysis Batch: 116027

Client Sample ID: BH-04  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	<10.1	U	252	269.5		mg/Kg		106	90 - 110

Lab Sample ID: 880-61170-1 MSD  
Matrix: Solid  
Analysis Batch: 116027

Client Sample ID: BH-04  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<10.1	U	252	262.6		mg/Kg		103	90 - 110	3	20

Lab Sample ID: 880-61170-11 MS  
Matrix: Solid  
Analysis Batch: 116027

Client Sample ID: BH-09  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	<10.0	U F1	251	280.6		mg/Kg		110	90 - 110

Lab Sample ID: 880-61170-11 MSD  
Matrix: Solid  
Analysis Batch: 116027

Client Sample ID: BH-09  
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<10.0	U F1	251	287.0	F1	mg/Kg		113	90 - 110	2	20

### QC Association Summary

Client: Ensolum  
 Project/Site: State D A CTB

Job ID: 880-61170-1  
 SDG: Lea CO NM

#### GC VOA

##### Analysis Batch: 115927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-61170-1	BH-04	Total/NA	Solid	8021B	115979
880-61170-2	BH-04	Total/NA	Solid	8021B	115979
880-61170-3	BH-05	Total/NA	Solid	8021B	115979
MB 880-115940/5-A	Method Blank	Total/NA	Solid	8021B	115940
MB 880-115979/5-A	Method Blank	Total/NA	Solid	8021B	115979
LCS 880-115979/1-A	Lab Control Sample	Total/NA	Solid	8021B	115979
LCSD 880-115979/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	115979
880-61170-1 MS	BH-04	Total/NA	Solid	8021B	115979
880-61170-1 MSD	BH-04	Total/NA	Solid	8021B	115979

##### Prep Batch: 115940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-115940/5-A	Method Blank	Total/NA	Solid	5035	

##### Prep Batch: 115979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-61170-1	BH-04	Total/NA	Solid	5035	
880-61170-2	BH-04	Total/NA	Solid	5035	
880-61170-3	BH-05	Total/NA	Solid	5035	
MB 880-115979/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-115979/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-115979/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-61170-1 MS	BH-04	Total/NA	Solid	5035	
880-61170-1 MSD	BH-04	Total/NA	Solid	5035	

##### Analysis Batch: 116035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-61170-9	BH-08	Total/NA	Solid	8021B	116052
880-61170-10	BH-08	Total/NA	Solid	8021B	116052
880-61170-11	BH-09	Total/NA	Solid	8021B	116052
880-61170-12	BH-09	Total/NA	Solid	8021B	116052
880-61170-13	BH-10	Total/NA	Solid	8021B	116052
880-61170-13	BH-10	Total/NA	Solid	8021B	116052
880-61170-14	BH-10	Total/NA	Solid	8021B	116052
880-61170-15	BH-11	Total/NA	Solid	8021B	116052
MB 880-116052/5-A	Method Blank	Total/NA	Solid	8021B	116052
LCS 880-116052/1-A	Lab Control Sample	Total/NA	Solid	8021B	116052
LCSD 880-116052/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	116052

##### Analysis Batch: 116037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-61170-3	BH-05	Total/NA	Solid	8021B	116055
880-61170-4	BH-05	Total/NA	Solid	8021B	116055
880-61170-5	BH-06	Total/NA	Solid	8021B	116055
880-61170-6	BH-06	Total/NA	Solid	8021B	116055
880-61170-7	BH-07	Total/NA	Solid	8021B	116055
880-61170-8	BH-07	Total/NA	Solid	8021B	116055
MB 880-116055/5-A	Method Blank	Total/NA	Solid	8021B	116055
LCS 880-116055/1-A	Lab Control Sample	Total/NA	Solid	8021B	116055
LCSD 880-116055/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	116055

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### QC Association Summary

Client: Ensolum  
 Project/Site: State D A CTB

Job ID: 880-61170-1  
 SDG: Lea CO NM

#### GC VOA

##### Analysis Batch: 116042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-61170-1	BH-04	Total/NA	Solid	Total BTEX	
880-61170-2	BH-04	Total/NA	Solid	Total BTEX	
880-61170-3	BH-05	Total/NA	Solid	Total BTEX	
880-61170-4	BH-05	Total/NA	Solid	Total BTEX	
880-61170-5	BH-06	Total/NA	Solid	Total BTEX	
880-61170-6	BH-06	Total/NA	Solid	Total BTEX	
880-61170-7	BH-07	Total/NA	Solid	Total BTEX	
880-61170-8	BH-07	Total/NA	Solid	Total BTEX	
880-61170-9	BH-08	Total/NA	Solid	Total BTEX	
880-61170-10	BH-08	Total/NA	Solid	Total BTEX	
880-61170-11	BH-09	Total/NA	Solid	Total BTEX	
880-61170-12	BH-09	Total/NA	Solid	Total BTEX	
880-61170-13	BH-10	Total/NA	Solid	Total BTEX	
880-61170-14	BH-10	Total/NA	Solid	Total BTEX	
880-61170-15	BH-11	Total/NA	Solid	Total BTEX	

##### Prep Batch: 116052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-61170-9	BH-08	Total/NA	Solid	5035	
880-61170-10	BH-08	Total/NA	Solid	5035	
880-61170-11	BH-09	Total/NA	Solid	5035	
880-61170-12	BH-09	Total/NA	Solid	5035	
880-61170-13	BH-10	Total/NA	Solid	5035	
880-61170-13	BH-10	Total/NA	Solid	5035	
880-61170-14	BH-10	Total/NA	Solid	5035	
880-61170-15	BH-11	Total/NA	Solid	5035	
MB 880-116052/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-116052/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-116052/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

##### Prep Batch: 116055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-61170-3	BH-05	Total/NA	Solid	5035	
880-61170-4	BH-05	Total/NA	Solid	5035	
880-61170-5	BH-06	Total/NA	Solid	5035	
880-61170-6	BH-06	Total/NA	Solid	5035	
880-61170-7	BH-07	Total/NA	Solid	5035	
880-61170-8	BH-07	Total/NA	Solid	5035	
MB 880-116055/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-116055/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-116055/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

#### GC Semi VOA

##### Prep Batch: 116004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-61170-1	BH-04	Total/NA	Solid	8015NM Prep	
880-61170-2	BH-04	Total/NA	Solid	8015NM Prep	
880-61170-3	BH-05	Total/NA	Solid	8015NM Prep	
880-61170-4	BH-05	Total/NA	Solid	8015NM Prep	
880-61170-5	BH-06	Total/NA	Solid	8015NM Prep	

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## QC Association Summary

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

## GC Semi VOA (Continued)

## Prep Batch: 116004 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-61170-6	BH-06	Total/NA	Solid	8015NM Prep	
880-61170-7	BH-07	Total/NA	Solid	8015NM Prep	
880-61170-10	BH-08	Total/NA	Solid	8015NM Prep	
880-61170-11	BH-09	Total/NA	Solid	8015NM Prep	
880-61170-12	BH-09	Total/NA	Solid	8015NM Prep	
880-61170-13	BH-10	Total/NA	Solid	8015NM Prep	
880-61170-14	BH-10	Total/NA	Solid	8015NM Prep	
880-61170-15	BH-11	Total/NA	Solid	8015NM Prep	
MB 880-116004/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-116004/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-116004/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-61170-1 MS	BH-04	Total/NA	Solid	8015NM Prep	
880-61170-1 MSD	BH-04	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 116284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-61170-1	BH-04	Total/NA	Solid	8015B NM	116004
880-61170-2	BH-04	Total/NA	Solid	8015B NM	116004
880-61170-3	BH-05	Total/NA	Solid	8015B NM	116004
880-61170-4	BH-05	Total/NA	Solid	8015B NM	116004
880-61170-5	BH-06	Total/NA	Solid	8015B NM	116004
880-61170-6	BH-06	Total/NA	Solid	8015B NM	116004
880-61170-7	BH-07	Total/NA	Solid	8015B NM	116004
880-61170-10	BH-08	Total/NA	Solid	8015B NM	116004
880-61170-11	BH-09	Total/NA	Solid	8015B NM	116004
880-61170-12	BH-09	Total/NA	Solid	8015B NM	116004
880-61170-13	BH-10	Total/NA	Solid	8015B NM	116004
880-61170-14	BH-10	Total/NA	Solid	8015B NM	116004
880-61170-15	BH-11	Total/NA	Solid	8015B NM	116004
MB 880-116004/1-A	Method Blank	Total/NA	Solid	8015B NM	116004
LCS 880-116004/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	116004
LCSD 880-116004/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	116004
880-61170-1 MS	BH-04	Total/NA	Solid	8015B NM	116004
880-61170-1 MSD	BH-04	Total/NA	Solid	8015B NM	116004

## Prep Batch: 116344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-61170-8	BH-07	Total/NA	Solid	8015NM Prep	
880-61170-9	BH-08	Total/NA	Solid	8015NM Prep	
MB 880-116344/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-116344/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-116344/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 116367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-61170-1	BH-04	Total/NA	Solid	8015 NM	
880-61170-2	BH-04	Total/NA	Solid	8015 NM	
880-61170-3	BH-05	Total/NA	Solid	8015 NM	
880-61170-4	BH-05	Total/NA	Solid	8015 NM	
880-61170-5	BH-06	Total/NA	Solid	8015 NM	
880-61170-6	BH-06	Total/NA	Solid	8015 NM	

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## QC Association Summary

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

## GC Semi VOA (Continued)

## Analysis Batch: 116367 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-61170-7	BH-07	Total/NA	Solid	8015 NM	
880-61170-8	BH-07	Total/NA	Solid	8015 NM	
880-61170-9	BH-08	Total/NA	Solid	8015 NM	
880-61170-10	BH-08	Total/NA	Solid	8015 NM	
880-61170-11	BH-09	Total/NA	Solid	8015 NM	
880-61170-12	BH-09	Total/NA	Solid	8015 NM	
880-61170-13	BH-10	Total/NA	Solid	8015 NM	
880-61170-14	BH-10	Total/NA	Solid	8015 NM	
880-61170-15	BH-11	Total/NA	Solid	8015 NM	

## Analysis Batch: 116387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-61170-8	BH-07	Total/NA	Solid	8015B NM	116344
880-61170-9	BH-08	Total/NA	Solid	8015B NM	116344
MB 880-116344/1-A	Method Blank	Total/NA	Solid	8015B NM	116344
LCS 880-116344/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	116344
LCSD 880-116344/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	116344

## HPLC/IC

## Leach Batch: 116013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-61170-1	BH-04	Soluble	Solid	DI Leach	
880-61170-2	BH-04	Soluble	Solid	DI Leach	
880-61170-3	BH-05	Soluble	Solid	DI Leach	
880-61170-4	BH-05	Soluble	Solid	DI Leach	
880-61170-5	BH-06	Soluble	Solid	DI Leach	
880-61170-6	BH-06	Soluble	Solid	DI Leach	
880-61170-7	BH-07	Soluble	Solid	DI Leach	
880-61170-8	BH-07	Soluble	Solid	DI Leach	
880-61170-9	BH-08	Soluble	Solid	DI Leach	
880-61170-10	BH-08	Soluble	Solid	DI Leach	
880-61170-11	BH-09	Soluble	Solid	DI Leach	
880-61170-12	BH-09	Soluble	Solid	DI Leach	
880-61170-13	BH-10	Soluble	Solid	DI Leach	
880-61170-14	BH-10	Soluble	Solid	DI Leach	
880-61170-15	BH-11	Soluble	Solid	DI Leach	
MB 880-116013/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-116013/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-116013/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-61170-1 MS	BH-04	Soluble	Solid	DI Leach	
880-61170-1 MSD	BH-04	Soluble	Solid	DI Leach	
880-61170-11 MS	BH-09	Soluble	Solid	DI Leach	
880-61170-11 MSD	BH-09	Soluble	Solid	DI Leach	

## Analysis Batch: 116027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-61170-1	BH-04	Soluble	Solid	300.0	116013
880-61170-2	BH-04	Soluble	Solid	300.0	116013
880-61170-3	BH-05	Soluble	Solid	300.0	116013
880-61170-4	BH-05	Soluble	Solid	300.0	116013

Eurofins Midland

### QC Association Summary

Client: Ensolum  
 Project/Site: State D A CTB

Job ID: 880-61170-1  
 SDG: Lea CO NM

#### HPLC/IC (Continued)

#### Analysis Batch: 116027 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-61170-5	BH-06	Soluble	Solid	300.0	116013
880-61170-6	BH-06	Soluble	Solid	300.0	116013
880-61170-7	BH-07	Soluble	Solid	300.0	116013
880-61170-8	BH-07	Soluble	Solid	300.0	116013
880-61170-9	BH-08	Soluble	Solid	300.0	116013
880-61170-10	BH-08	Soluble	Solid	300.0	116013
880-61170-11	BH-09	Soluble	Solid	300.0	116013
880-61170-12	BH-09	Soluble	Solid	300.0	116013
880-61170-13	BH-10	Soluble	Solid	300.0	116013
880-61170-14	BH-10	Soluble	Solid	300.0	116013
880-61170-15	BH-11	Soluble	Solid	300.0	116013
MB 880-116013/1-A	Method Blank	Soluble	Solid	300.0	116013
LCS 880-116013/2-A	Lab Control Sample	Soluble	Solid	300.0	116013
LCSD 880-116013/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	116013
880-61170-1 MS	BH-04	Soluble	Solid	300.0	116013
880-61170-1 MSD	BH-04	Soluble	Solid	300.0	116013
880-61170-11 MS	BH-09	Soluble	Solid	300.0	116013
880-61170-11 MSD	BH-09	Soluble	Solid	300.0	116013

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### Lab Chronicle

Client: Ensolum  
 Project/Site: State D A CTB

Job ID: 880-61170-1  
 SDG: Lea CO NM

**Client Sample ID: BH-04**

**Lab Sample ID: 880-61170-1**

Date Collected: 08/05/25 14:22

Matrix: Solid

Date Received: 08/06/25 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			115979	MNR	EET MID	08/06/25 11:26
Total/NA	Analysis	8021B		1	115927	MNR	EET MID	08/06/25 22:56
Total/NA	Analysis	Total BTEX		1	116042	SA	EET MID	08/06/25 22:56
Total/NA	Analysis	8015 NM		1	116367	SA	EET MID	08/08/25 18:13
Total/NA	Prep	8015NM Prep			116004	EL	EET MID	08/06/25 13:53
Total/NA	Analysis	8015B NM		1	116284	TKC	EET MID	08/08/25 18:13
Soluble	Leach	DI Leach			116013	SMC	EET MID	08/06/25 14:50
Soluble	Analysis	300.0		1	116027	CS	EET MID	08/07/25 00:13

**Client Sample ID: BH-04**

**Lab Sample ID: 880-61170-2**

Date Collected: 08/05/25 14:30

Matrix: Solid

Date Received: 08/06/25 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			115979	MNR	EET MID	08/06/25 11:26
Total/NA	Analysis	8021B		1	115927	MNR	EET MID	08/06/25 23:16
Total/NA	Analysis	Total BTEX		1	116042	SA	EET MID	08/06/25 23:16
Total/NA	Analysis	8015 NM		1	116367	SA	EET MID	08/08/25 18:59
Total/NA	Prep	8015NM Prep			116004	EL	EET MID	08/06/25 13:53
Total/NA	Analysis	8015B NM		1	116284	TKC	EET MID	08/08/25 18:59
Soluble	Leach	DI Leach			116013	SMC	EET MID	08/06/25 14:50
Soluble	Analysis	300.0		1	116027	CS	EET MID	08/07/25 00:36

**Client Sample ID: BH-05**

**Lab Sample ID: 880-61170-3**

Date Collected: 08/05/25 09:34

Matrix: Solid

Date Received: 08/06/25 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			115979	MNR	EET MID	08/06/25 11:26
Total/NA	Analysis	8021B		200	115927	MNR	EET MID	08/07/25 00:18
Total/NA	Prep	5035			116055	MNR	EET MID	08/07/25 09:07
Total/NA	Analysis	8021B		25	116037	MNR	EET MID	08/07/25 13:18
Total/NA	Analysis	Total BTEX		1	116042	SA	EET MID	08/07/25 13:18
Total/NA	Analysis	8015 NM		1	116367	SA	EET MID	08/08/25 19:14
Total/NA	Prep	8015NM Prep			116004	EL	EET MID	08/06/25 13:53
Total/NA	Analysis	8015B NM		5	116284	TKC	EET MID	08/08/25 19:14
Soluble	Leach	DI Leach			116013	SMC	EET MID	08/06/25 14:50
Soluble	Analysis	300.0		1	116027	CS	EET MID	08/07/25 00:44

### Lab Chronicle

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

**Client Sample ID: BH-05**

**Lab Sample ID: 880-61170-4**

Date Collected: 08/05/25 09:40

Matrix: Solid

Date Received: 08/06/25 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			116055	MNR	EET MID	08/07/25 09:07
Total/NA	Analysis	8021B		10	116037	MNR	EET MID	08/07/25 13:38
Total/NA	Analysis	Total BTEX		1	116042	SA	EET MID	08/07/25 13:38
Total/NA	Analysis	8015 NM		1	116367	SA	EET MID	08/08/25 19:29
Total/NA	Prep	8015NM Prep			116004	EL	EET MID	08/06/25 13:53
Total/NA	Analysis	8015B NM		1	116284	TKC	EET MID	08/08/25 19:29
Soluble	Leach	DI Leach			116013	SMC	EET MID	08/06/25 14:50
Soluble	Analysis	300.0		1	116027	CS	EET MID	08/07/25 00:51

**Client Sample ID: BH-06**

**Lab Sample ID: 880-61170-5**

Date Collected: 08/05/25 10:10

Matrix: Solid

Date Received: 08/06/25 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			116055	MNR	EET MID	08/07/25 09:07
Total/NA	Analysis	8021B		10	116037	MNR	EET MID	08/07/25 13:59
Total/NA	Analysis	Total BTEX		1	116042	SA	EET MID	08/07/25 13:59
Total/NA	Analysis	8015 NM		1	116367	SA	EET MID	08/08/25 19:44
Total/NA	Prep	8015NM Prep			116004	EL	EET MID	08/06/25 13:53
Total/NA	Analysis	8015B NM		5	116284	TKC	EET MID	08/08/25 19:44
Soluble	Leach	DI Leach			116013	SMC	EET MID	08/06/25 14:50
Soluble	Analysis	300.0		1	116027	CS	EET MID	08/07/25 00:59

**Client Sample ID: BH-06**

**Lab Sample ID: 880-61170-6**

Date Collected: 08/05/25 10:43

Matrix: Solid

Date Received: 08/06/25 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			116055	MNR	EET MID	08/07/25 09:07
Total/NA	Analysis	8021B		10	116037	MNR	EET MID	08/07/25 14:19
Total/NA	Analysis	Total BTEX		1	116042	SA	EET MID	08/07/25 14:19
Total/NA	Analysis	8015 NM		1	116367	SA	EET MID	08/08/25 19:59
Total/NA	Prep	8015NM Prep			116004	EL	EET MID	08/06/25 13:53
Total/NA	Analysis	8015B NM		1	116284	TKC	EET MID	08/08/25 19:59
Soluble	Leach	DI Leach			116013	SMC	EET MID	08/06/25 14:50
Soluble	Analysis	300.0		1	116027	CS	EET MID	08/07/25 01:22

**Client Sample ID: BH-07**

**Lab Sample ID: 880-61170-7**

Date Collected: 08/05/25 11:12

Matrix: Solid

Date Received: 08/06/25 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			116055	MNR	EET MID	08/07/25 09:07
Total/NA	Analysis	8021B		10	116037	MNR	EET MID	08/07/25 14:40
Total/NA	Analysis	Total BTEX		1	116042	SA	EET MID	08/07/25 14:40

Eurofins Midland

### Lab Chronicle

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

**Client Sample ID: BH-07**

**Lab Sample ID: 880-61170-7**

Date Collected: 08/05/25 11:12

Matrix: Solid

Date Received: 08/06/25 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015 NM		1	116367	SA	EET MID	08/08/25 20:14
Total/NA	Prep	8015NM Prep			116004	EL	EET MID	08/06/25 13:53
Total/NA	Analysis	8015B NM		5	116284	TKC	EET MID	08/08/25 20:14
Soluble	Leach	DI Leach			116013	SMC	EET MID	08/06/25 14:50
Soluble	Analysis	300.0		1	116027	CS	EET MID	08/07/25 01:30

**Client Sample ID: BH-07**

**Lab Sample ID: 880-61170-8**

Date Collected: 08/05/25 11:36

Matrix: Solid

Date Received: 08/06/25 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			116055	MNR	EET MID	08/07/25 09:07
Total/NA	Analysis	8021B		10	116037	MNR	EET MID	08/07/25 15:00
Total/NA	Analysis	Total BTEX		1	116042	SA	EET MID	08/07/25 15:00
Total/NA	Analysis	8015 NM		1	116367	SA	EET MID	08/11/25 14:37
Total/NA	Prep	8015NM Prep			116344	FC	EET MID	08/11/25 11:28
Total/NA	Analysis	8015B NM		1	116387	TKC	EET MID	08/11/25 14:37
Soluble	Leach	DI Leach			116013	SMC	EET MID	08/06/25 14:50
Soluble	Analysis	300.0		1	116027	CS	EET MID	08/07/25 01:37

**Client Sample ID: BH-08**

**Lab Sample ID: 880-61170-9**

Date Collected: 08/05/25 11:50

Matrix: Solid

Date Received: 08/06/25 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			116052	MNR	EET MID	08/07/25 09:02
Total/NA	Analysis	8021B		10	116035	MNR	EET MID	08/07/25 12:47
Total/NA	Analysis	Total BTEX		1	116042	SA	EET MID	08/07/25 12:47
Total/NA	Analysis	8015 NM		1	116367	SA	EET MID	08/11/25 14:53
Total/NA	Prep	8015NM Prep			116344	FC	EET MID	08/11/25 11:28
Total/NA	Analysis	8015B NM		1	116387	TKC	EET MID	08/11/25 14:53
Soluble	Leach	DI Leach			116013	SMC	EET MID	08/06/25 14:50
Soluble	Analysis	300.0		1	116027	CS	EET MID	08/07/25 01:45

**Client Sample ID: BH-08**

**Lab Sample ID: 880-61170-10**

Date Collected: 08/05/25 11:56

Matrix: Solid

Date Received: 08/06/25 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			116052	MNR	EET MID	08/07/25 09:02
Total/NA	Analysis	8021B		10	116035	MNR	EET MID	08/07/25 13:08
Total/NA	Analysis	Total BTEX		1	116042	SA	EET MID	08/07/25 13:08
Total/NA	Analysis	8015 NM		1	116367	SA	EET MID	08/08/25 20:59
Total/NA	Prep	8015NM Prep			116004	EL	EET MID	08/06/25 13:53
Total/NA	Analysis	8015B NM		5	116284	TKC	EET MID	08/08/25 20:59

Eurofins Midland

### Lab Chronicle

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

**Client Sample ID: BH-08**

**Lab Sample ID: 880-61170-10**

Date Collected: 08/05/25 11:56

Matrix: Solid

Date Received: 08/06/25 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			116013	SMC	EET MID	08/06/25 14:50
Soluble	Analysis	300.0		1	116027	CS	EET MID	08/07/25 01:53

**Client Sample ID: BH-09**

**Lab Sample ID: 880-61170-11**

Date Collected: 08/05/25 12:32

Matrix: Solid

Date Received: 08/06/25 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			116052	MNR	EET MID	08/07/25 09:02
Total/NA	Analysis	8021B		10	116035	MNR	EET MID	08/07/25 13:28
Total/NA	Analysis	Total BTEX		1	116042	SA	EET MID	08/07/25 13:28
Total/NA	Analysis	8015 NM		1	116367	SA	EET MID	08/08/25 21:29
Total/NA	Prep	8015NM Prep			116004	EL	EET MID	08/06/25 13:53
Total/NA	Analysis	8015B NM		1	116284	TKC	EET MID	08/08/25 21:29
Soluble	Leach	DI Leach			116013	SMC	EET MID	08/06/25 14:50
Soluble	Analysis	300.0		1	116027	CS	EET MID	08/07/25 02:00

**Client Sample ID: BH-09**

**Lab Sample ID: 880-61170-12**

Date Collected: 08/05/25 13:50

Matrix: Solid

Date Received: 08/06/25 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			116052	MNR	EET MID	08/07/25 09:02
Total/NA	Analysis	8021B		10	116035	MNR	EET MID	08/07/25 13:49
Total/NA	Analysis	Total BTEX		1	116042	SA	EET MID	08/07/25 13:49
Total/NA	Analysis	8015 NM		1	116367	SA	EET MID	08/08/25 21:43
Total/NA	Prep	8015NM Prep			116004	EL	EET MID	08/06/25 13:53
Total/NA	Analysis	8015B NM		1	116284	TKC	EET MID	08/08/25 21:43
Soluble	Leach	DI Leach			116013	SMC	EET MID	08/06/25 14:50
Soluble	Analysis	300.0		1	116027	CS	EET MID	08/07/25 02:23

**Client Sample ID: BH-10**

**Lab Sample ID: 880-61170-13**

Date Collected: 08/05/25 13:12

Matrix: Solid

Date Received: 08/06/25 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			116052	MNR	EET MID	08/07/25 09:02
Total/NA	Analysis	8021B		10	116035	MNR	EET MID	08/07/25 14:09
Total/NA	Prep	5035			116052	MNR	EET MID	08/07/25 09:02
Total/NA	Analysis	8021B		200	116035	MNR	EET MID	08/07/25 20:41
Total/NA	Analysis	Total BTEX		1	116042	SA	EET MID	08/07/25 20:41
Total/NA	Analysis	8015 NM		1	116367	SA	EET MID	08/08/25 22:00
Total/NA	Prep	8015NM Prep			116004	EL	EET MID	08/06/25 13:53
Total/NA	Analysis	8015B NM		10	116284	TKC	EET MID	08/08/25 22:00

### Lab Chronicle

Client: Ensolum  
 Project/Site: State D A CTB

Job ID: 880-61170-1  
 SDG: Lea CO NM

**Client Sample ID: BH-10**

**Lab Sample ID: 880-61170-13**

Date Collected: 08/05/25 13:12

Matrix: Solid

Date Received: 08/06/25 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			116013	SMC	EET MID	08/06/25 14:50
Soluble	Analysis	300.0		1	116027	CS	EET MID	08/07/25 02:31

**Client Sample ID: BH-10**

**Lab Sample ID: 880-61170-14**

Date Collected: 08/05/25 13:42

Matrix: Solid

Date Received: 08/06/25 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			116052	MNR	EET MID	08/07/25 09:02
Total/NA	Analysis	8021B		10	116035	MNR	EET MID	08/07/25 14:29
Total/NA	Analysis	Total BTEX		1	116042	SA	EET MID	08/07/25 14:29
Total/NA	Analysis	8015 NM		1	116367	SA	EET MID	08/08/25 22:15
Total/NA	Prep	8015NM Prep			116004	EL	EET MID	08/06/25 13:53
Total/NA	Analysis	8015B NM		1	116284	TKC	EET MID	08/08/25 22:15
Soluble	Leach	DI Leach			116013	SMC	EET MID	08/06/25 14:50
Soluble	Analysis	300.0		1	116027	CS	EET MID	08/07/25 02:54

**Client Sample ID: BH-11**

**Lab Sample ID: 880-61170-15**

Date Collected: 08/05/25 14:40

Matrix: Solid

Date Received: 08/06/25 09:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			116052	MNR	EET MID	08/07/25 09:02
Total/NA	Analysis	8021B		10	116035	MNR	EET MID	08/07/25 14:50
Total/NA	Analysis	Total BTEX		1	116042	SA	EET MID	08/07/25 14:50
Total/NA	Analysis	8015 NM		1	116367	SA	EET MID	08/08/25 22:29
Total/NA	Prep	8015NM Prep			116004	EL	EET MID	08/06/25 13:53
Total/NA	Analysis	8015B NM		1	116284	TKC	EET MID	08/08/25 22:29
Soluble	Leach	DI Leach			116013	SMC	EET MID	08/06/25 14:50
Soluble	Analysis	300.0		1	116027	CS	EET MID	08/07/25 03:01

**Laboratory References:**

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

### Accreditation/Certification Summary

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

#### Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-26

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

- 1
- 2
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### Method Summary

Client: Ensolum  
 Project/Site: State D A CTB

Job ID: 880-61170-1  
 SDG: Lea CO NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

**Protocol References:**

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Laboratory References:**

- EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440



### Sample Summary

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 880-61170-1  
SDG: Lea CO NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-61170-1	BH-04	Solid	08/05/25 14:22	08/06/25 09:13	1
880-61170-2	BH-04	Solid	08/05/25 14:30	08/06/25 09:13	5
880-61170-3	BH-05	Solid	08/05/25 09:34	08/06/25 09:13	1
880-61170-4	BH-05	Solid	08/05/25 09:40	08/06/25 09:13	4
880-61170-5	BH-06	Solid	08/05/25 10:10	08/06/25 09:13	1
880-61170-6	BH-06	Solid	08/05/25 10:43	08/06/25 09:13	5
880-61170-7	BH-07	Solid	08/05/25 11:12	08/06/25 09:13	1
880-61170-8	BH-07	Solid	08/05/25 11:36	08/06/25 09:13	5
880-61170-9	BH-08	Solid	08/05/25 11:50	08/06/25 09:13	1
880-61170-10	BH-08	Solid	08/05/25 11:56	08/06/25 09:13	4
880-61170-11	BH-09	Solid	08/05/25 12:32	08/06/25 09:13	2
880-61170-12	BH-09	Solid	08/05/25 13:50	08/06/25 09:13	5
880-61170-13	BH-10	Solid	08/05/25 13:12	08/06/25 09:13	1
880-61170-14	BH-10	Solid	08/05/25 13:42	08/06/25 09:13	5
880-61170-15	BH-11	Solid	08/05/25 14:40	08/06/25 09:13	1

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# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
 El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199



880-61170 Chain of Custody

www.xenco.com Page 1 of 2

Program:  US/PST  PRP  Brownfields  RRC  Superfund   
 State of Project:  Level II  Level III  PST/UST  TRRP  Level IV   
 Reporting:  Level II  Level III  PST/UST  TRRP  Level IV   
 Deliverables:  EDD  ADAPT  Other:

Project Manager: *Kelci Jennings* Bill to: (if different) *Billy Gian*  
 Company Name: *Ensalen LLC* Company Name: *Hilcorp*  
 Address: *601 Mainfield 400* Address:  
 City, State ZIP: *MIDLAND TX 79701* City, State ZIP:  
 Phone: *432 230 3344* Email: *Kjennings@ensalen.com*

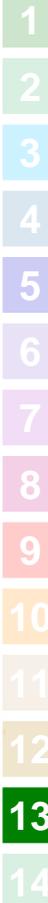
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters		Pres. Code	ANALYSIS REQUEST	Preservative Codes	Sample Comments
							Temp Blank: Yes No	Wet Ice: Yes No				
BH-04	S	8-5-25	1422	4	C	1				None: NO Cool: Cool HCL: HC H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> H <sub>3</sub> PO <sub>4</sub> : HP NaHSO <sub>4</sub> : NABIS Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub> Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC		
BH-04	S	8-5-25	1430	5	C	1						
BH-05	S	8-5-25	934	1	C	1						
BH-05	S	8-5-25	940	4	C	1						
BH-06	S	8-5-25	1010	1	C	1						
BH-06	S	8-6-25	1043	5	C	1						
BH-07	S	8-5-25	1112	1	C	1						
BH-07	S	8-5-25	1136	5	C	1						
BH-08	S	8-5-25	1150	1	C	1						
BH-08	S	8-5-25	1156	4	C	1						

Total 200.71/6010 200.8/6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO<sub>2</sub> Na Sr Ti Sn U V Zn  
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	8/13/25			

Revised Date: 08/25/2020 Rev. 2020.2





### Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-61170-1

SDG Number: Lea CO NM

**Login Number: 61170**

**List Number: 1**

**Creator: Vasquez, Julisa**

**List Source: Eurofins Midland**

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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

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August 27, 2025

KALEI JENNINGS

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: STATE DA CTB

Enclosed are the results of analyses for samples received by the laboratory on 08/27/25 12:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](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  
 KALEI JENNINGS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	08/27/2025	Sampling Date:	08/27/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	STATE DA CTB	Sampling Condition:	** (See Notes)
Project Number:	07A1988176	Sample Received By:	Shalyn Rodriguez
Project Location:	HILCORP 32.476372-103.1723811		

**Sample ID: SW 04 0-2' (H255330-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/27/2025	ND	1.91	95.3	2.00	2.11	
Toluene*	<0.050	0.050	08/27/2025	ND	1.97	98.7	2.00	3.69	
Ethylbenzene*	<0.050	0.050	08/27/2025	ND	1.97	98.6	2.00	3.53	
Total Xylenes*	<0.150	0.150	08/27/2025	ND	5.97	99.5	6.00	3.64	
Total BTEX	<0.300	0.300	08/27/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/27/2025	ND	448	112	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/27/2025	ND	240	120	200	1.03	
<b>DRO &gt;C10-C28*</b>	<b>363</b>	10.0	08/27/2025	ND	238	119	200	1.18	
<b>EXT DRO &gt;C28-C36</b>	<b>238</b>	10.0	08/27/2025	ND					

Surrogate: 1-Chlorooctane 114 % 44.4-145

Surrogate: 1-Chlorooctadecane 118 % 40.6-153

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  
 KALEI JENNINGS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	08/27/2025	Sampling Date:	08/27/2025
Reported:	08/27/2025	Sampling Type:	Soil
Project Name:	STATE DA CTB	Sampling Condition:	** (See Notes)
Project Number:	07A1988176	Sample Received By:	Shalyn Rodriguez
Project Location:	HILCORP 32.476372-103.1723811		

**Sample ID: SW 05 0-4' (H255330-02)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/27/2025	ND	1.91	95.3	2.00	2.11		
Toluene*	<0.050	0.050	08/27/2025	ND	1.97	98.7	2.00	3.69		
Ethylbenzene*	<0.050	0.050	08/27/2025	ND	1.97	98.6	2.00	3.53		
Total Xylenes*	<0.150	0.150	08/27/2025	ND	5.97	99.5	6.00	3.64		
Total BTEX	<0.300	0.300	08/27/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/27/2025	ND	448	112	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/27/2025	ND	240	120	200	1.03		
<b>DRO &gt;C10-C28*</b>	<b>101</b>	10.0	08/27/2025	ND	238	119	200	1.18		
<b>EXT DRO &gt;C28-C36</b>	<b>101</b>	10.0	08/27/2025	ND						

Surrogate: 1-Chlorooctane 113 % 44.4-145

Surrogate: 1-Chlorooctadecane 118 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager





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

August 27, 2025

KALEI JENNINGS

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: STATE DA CTB

Enclosed are the results of analyses for samples received by the laboratory on 08/27/25 12:00.

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

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 27-Aug-25 15:53
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Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FS 02 6'	H255329-01	Soil	27-Aug-25 09:40	27-Aug-25 12:00

Case Narrative:

Samples received same day as samplin on ice at 6.1C. Not enough time for samples to reach 6C and below.

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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 27-Aug-25 15:53
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**FS 02 6'**  
**H255329-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>32.0</b>		16.0	mg/kg	4	5082721	AC	27-Aug-25	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5082625	JH	27-Aug-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5082625	JH	27-Aug-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5082625	JH	27-Aug-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5082625	JH	27-Aug-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5082625	JH	27-Aug-25	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			117 %	71.5-134		5082625	JH	27-Aug-25	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5082718	MS	27-Aug-25	8015B	
<b>DRO &gt;C10-C28*</b>	<b>85.9</b>		10.0	mg/kg	1	5082718	MS	27-Aug-25	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>11.4</b>		10.0	mg/kg	1	5082718	MS	27-Aug-25	8015B	
Surrogate: 1-Chlorooctane			116 %	44.4-145		5082718	MS	27-Aug-25	8015B	
Surrogate: 1-Chlorooctadecane			120 %	40.6-153		5082718	MS	27-Aug-25	8015B	

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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 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 27-Aug-25 15:53
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**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 5082721 - 1:4 DI Water</b>										
<b>Blank (5082721-BLK1)</b>										
Prepared & Analyzed: 27-Aug-25										
Chloride	ND	16.0	mg/kg							
<b>LCS (5082721-BS1)</b>										
Prepared & Analyzed: 27-Aug-25										
Chloride	448	16.0	mg/kg	400		112	80-120			
<b>LCS Dup (5082721-BSD1)</b>										
Prepared & Analyzed: 27-Aug-25										
Chloride	416	16.0	mg/kg	400		104	80-120	7.41	20	

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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 27-Aug-25 15:53
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**Volatile Organic Compounds by EPA Method 8021 - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5082625 - Volatiles**

**Blank (5082625-BLK1)**

Prepared: 26-Aug-25 Analyzed: 27-Aug-25

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0565		mg/kg	0.0500		113	71.5-134			

**LCS (5082625-BS1)**

Prepared: 26-Aug-25 Analyzed: 27-Aug-25

Benzene	1.91	0.050	mg/kg	2.00		95.3	76.3-129			
Toluene	1.97	0.050	mg/kg	2.00		98.7	84.1-129			
Ethylbenzene	1.97	0.050	mg/kg	2.00		98.6	80.1-133			
m,p-Xylene	4.00	0.100	mg/kg	4.00		100	81.4-134			
o-Xylene	1.97	0.050	mg/kg	2.00		98.5	81.4-133			
Total Xylenes	5.97	0.150	mg/kg	6.00		99.5	81.5-134			
Surrogate: 4-Bromofluorobenzene (PID)	0.0501		mg/kg	0.0500		100	71.5-134			

**LCS Dup (5082625-BSD1)**

Prepared: 26-Aug-25 Analyzed: 27-Aug-25

Benzene	1.95	0.050	mg/kg	2.00		97.4	76.3-129	2.11	15.8	
Toluene	2.05	0.050	mg/kg	2.00		102	84.1-129	3.69	15.9	
Ethylbenzene	2.04	0.050	mg/kg	2.00		102	80.1-133	3.53	16	
m,p-Xylene	4.16	0.100	mg/kg	4.00		104	81.4-134	3.94	16.2	
o-Xylene	2.03	0.050	mg/kg	2.00		102	81.4-133	3.02	16.7	
Total Xylenes	6.19	0.150	mg/kg	6.00		103	81.5-134	3.64	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0511		mg/kg	0.0500		102	71.5-134			

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 27-Aug-25 15:53
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**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5082718 - General Prep - Organics**

<b>Blank (5082718-BLK1)</b>		Prepared & Analyzed: 27-Aug-25								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	55.9		mg/kg	50.0		112	44.4-145			
Surrogate: 1-Chlorooctadecane	56.5		mg/kg	50.0		113	40.6-153			

<b>LCS (5082718-BS1)</b>		Prepared & Analyzed: 27-Aug-25								
GRO C6-C10	240	10.0	mg/kg	200		120	81.5-123			
DRO >C10-C28	238	10.0	mg/kg	200		119	77.7-122			
Total TPH C6-C28	479	10.0	mg/kg	400		120	80.9-121			
Surrogate: 1-Chlorooctane	64.6		mg/kg	50.0		129	44.4-145			
Surrogate: 1-Chlorooctadecane	66.2		mg/kg	50.0		132	40.6-153			

<b>LCS Dup (5082718-BSD1)</b>		Prepared & Analyzed: 27-Aug-25								
GRO C6-C10	238	10.0	mg/kg	200		119	81.5-123	1.03	13	
DRO >C10-C28	241	10.0	mg/kg	200		121	77.7-122	1.18	15.6	
Total TPH C6-C28	479	10.0	mg/kg	400		120	80.9-121	0.0756	18.5	
Surrogate: 1-Chlorooctane	63.0		mg/kg	50.0		126	44.4-145			
Surrogate: 1-Chlorooctadecane	65.2		mg/kg	50.0		130	40.6-153			

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

**BILL TO**

**ANALYSIS REQUEST**

Company Name: Ensolum, LLC. P.O. #: 07A1988176  
 Project Manager: Kalei Jennings Company: Ensolum, LLC.  
 Address: 3122 National Parks Hwy Attn: Kalei Jennings  
 City: Carlsbad State: NM Zip: 88220 Address: 3122 National Parks Hwy  
 Phone #: 817-683-2503 Fax #: City: Carlsbad  
 Project #: 07A1988176 Project Owner: Hilcorp State: NM Zip: 88220  
 Project Name: State D A CTB Phone #:  
 Project Location: 32.476572, -103.1723811 Fax #:

Sampler Name: Alex Ferrell  
 FOR LAB USE ONLY

Lab I.D.	Sample I.D.	Sample Depth	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	Chloride	TPH	BTEX
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
H855338	FS02	6'	C	1			X					8/27/2025	940	X	X	X

PLEASE NOTE: Liability and Damages, Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or 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: [Signature] Date: 8/27/25 Time: 1:00  
 Received By: [Signature] Date: [ ] Time: [ ]  
 Verbal Result:  Yes  No  Add'l Phone #:  
 All Results are emailed. Please provide Email address: AFerrell@ensolum.com KENNINHAS@ensolum.com

Relinquished By: [Signature] Date: [ ] Time: [ ]  
 Received By: [Signature] Date: [ ] Time: [ ]  
 Turnaround Time: Standard  Rush  SAME DAY  Add'l Phone #:  
 Thermometer ID #140 Correction Factor +0.3°C Bacteria (only) Sample Condition  
 Cool Intact  Yes  No Cool Intact  Yes  No  
 Observed Temp. °C Corrected Temp. °C

Delivered By: (Circle One) Observed Temp. °C Sample Condition CHECKED BY: (Initials)  
 Cooler Intact  Yes  No Cooler Intact  Yes  No  
 Sampler - UPS - Bus - Other: Corrected Temp. °C  
 FORM-006 R.3.6 02/12/25

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



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

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August 28, 2025

KALEI JENNINGS

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: STATE DA CTB

Enclosed are the results of analyses for samples received by the laboratory on 08/28/25 14:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](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  
 KALEI JENNINGS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	08/28/2025	Sampling Date:	08/26/2025
Reported:	08/28/2025	Sampling Type:	Soil
Project Name:	STATE DA CTB	Sampling Condition:	Cool & Intact
Project Number:	07A1988176	Sample Received By:	Tamara Oldaker
Project Location:	HILCORP 32.476572-103.1723811		

**Sample ID: SW 01 0-5' (H255372-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2025	ND	1.79	89.3	2.00	1.14	
Toluene*	<0.050	0.050	08/28/2025	ND	1.89	94.5	2.00	1.79	
Ethylbenzene*	<0.050	0.050	08/28/2025	ND	1.90	94.8	2.00	1.62	
Total Xylenes*	<0.150	0.150	08/28/2025	ND	5.87	97.8	6.00	1.79	
Total BTEX	<0.300	0.300	08/28/2025	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	<16.0	16.0	08/28/2025	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	08/28/2025	ND	234	117	200	0.857	
<b>DRO &gt;C10-C28*</b>	<b>84.9</b>	10.0	08/28/2025	ND	234	117	200	0.265	
<b>EXT DRO &gt;C28-C36</b>	<b>87.5</b>	10.0	08/28/2025	ND					

Surrogate: 1-Chlorooctane 117 % 44.4-145

Surrogate: 1-Chlorooctadecane 119 % 40.6-153

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  
 KALEI JENNINGS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	08/28/2025	Sampling Date:	08/26/2025
Reported:	08/28/2025	Sampling Type:	Soil
Project Name:	STATE DA CTB	Sampling Condition:	Cool & Intact
Project Number:	07A1988176	Sample Received By:	Tamara Oldaker
Project Location:	HILCORP 32.476572-103.1723811		

**Sample ID: SW 02 0-5' (H255372-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2025	ND	1.79	89.3	2.00	1.14	
Toluene*	<0.050	0.050	08/28/2025	ND	1.89	94.5	2.00	1.79	
Ethylbenzene*	<0.050	0.050	08/28/2025	ND	1.90	94.8	2.00	1.62	
Total Xylenes*	<0.150	0.150	08/28/2025	ND	5.87	97.8	6.00	1.79	
Total BTEX	<0.300	0.300	08/28/2025	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	<16.0	16.0	08/28/2025	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	08/28/2025	ND	234	117	200	0.857	
<b>DRO &gt;C10-C28*</b>	<b>94.1</b>	10.0	08/28/2025	ND	234	117	200	0.265	
<b>EXT DRO &gt;C28-C36</b>	<b>84.7</b>	10.0	08/28/2025	ND					

Surrogate: 1-Chlorooctane 119 % 44.4-145

Surrogate: 1-Chlorooctadecane 122 % 40.6-153

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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  
 KALEI JENNINGS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	08/28/2025	Sampling Date:	08/26/2025
Reported:	08/28/2025	Sampling Type:	Soil
Project Name:	STATE DA CTB	Sampling Condition:	Cool & Intact
Project Number:	07A1988176	Sample Received By:	Tamara Oldaker
Project Location:	HILCORP 32.476572-103.1723811		

**Sample ID: SW 03 0-5' (H255372-03)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2025	ND	1.79	89.3	2.00	1.14	
Toluene*	<0.050	0.050	08/28/2025	ND	1.89	94.5	2.00	1.79	
Ethylbenzene*	<0.050	0.050	08/28/2025	ND	1.90	94.8	2.00	1.62	
Total Xylenes*	<0.150	0.150	08/28/2025	ND	5.87	97.8	6.00	1.79	
Total BTEX	<0.300	0.300	08/28/2025	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
<b>Chloride</b>	<b>32.0</b>	16.0	08/28/2025	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	08/28/2025	ND	234	117	200	0.857	
<b>DRO &gt;C10-C28*</b>	<b>626</b>	10.0	08/28/2025	ND	234	117	200	0.265	
<b>EXT DRO &gt;C28-C36</b>	<b>268</b>	10.0	08/28/2025	ND					

Surrogate: 1-Chlorooctane 124 % 44.4-145

Surrogate: 1-Chlorooctadecane 144 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager





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---

September 03, 2025

KALEI JENNINGS

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: STATE DA CTB

Enclosed are the results of analyses for samples received by the laboratory on 08/27/25 12:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](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  
 KALEI JENNINGS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	08/27/2025	Sampling Date:	08/27/2025
Reported:	09/03/2025	Sampling Type:	Soil
Project Name:	STATE DA CTB	Sampling Condition:	** (See Notes)
Project Number:	07A1988176	Sample Received By:	Shalyn Rodriguez
Project Location:	HILCORP 32.476572-103.1723811		

**Sample ID: FS 11 2' (H255331-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2025	ND	1.88	93.9	2.00	11.0	
Toluene*	<0.050	0.050	08/28/2025	ND	2.01	100	2.00	7.36	
<b>Ethylbenzene*</b>	<b>0.054</b>	0.050	08/28/2025	ND	2.06	103	2.00	5.34	
Total Xylenes*	<0.150	0.150	08/28/2025	ND	6.14	102	6.00	4.95	
Total BTEX	<0.300	0.300	08/28/2025	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>64.0</b>	16.0	08/28/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/27/2025	ND	240	120	200	1.03	
<b>DRO &gt;C10-C28*</b>	<b>125</b>	10.0	08/27/2025	ND	238	119	200	1.18	
<b>EXT DRO &gt;C28-C36</b>	<b>101</b>	10.0	08/27/2025	ND					

Surrogate: 1-Chlorooctane 92.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 95.4 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 KALEI JENNINGS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	08/27/2025	Sampling Date:	08/27/2025
Reported:	09/03/2025	Sampling Type:	Soil
Project Name:	STATE DA CTB	Sampling Condition:	** (See Notes)
Project Number:	07A1988176	Sample Received By:	Shalyn Rodriguez
Project Location:	HILCORP 32.476572-103.1723811		

**Sample ID: FS 12 4' (H255331-02)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2025	ND	1.88	93.9	2.00	11.0	
Toluene*	<0.050	0.050	08/28/2025	ND	2.01	100	2.00	7.36	
Ethylbenzene*	<0.050	0.050	08/28/2025	ND	2.06	103	2.00	5.34	
Total Xylenes*	<0.150	0.150	08/28/2025	ND	6.14	102	6.00	4.95	
Total BTEX	<0.300	0.300	08/28/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	08/28/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/27/2025	ND	240	120	200	1.03	
<b>DRO &gt;C10-C28*</b>	<b>200</b>	10.0	08/27/2025	ND	238	119	200	1.18	
<b>EXT DRO &gt;C28-C36</b>	<b>120</b>	10.0	08/27/2025	ND					

Surrogate: 1-Chlorooctane 55.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 60.6 % 40.6-153

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  
Samples reported on an as received basis (wet) unless otherwise noted on report

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager





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September 03, 2025

KALEI JENNINGS

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: STATE DA CTB

Enclosed are the results of analyses for samples received by the laboratory on 08/22/25 16:33.

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

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 03-Sep-25 15:09
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Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FS01 5'	H255264-01	Soil	22-Aug-25 15:23	22-Aug-25 16:33

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 03-Sep-25 15:09
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**FS01 5'  
H255264-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5082503	JH	25-Aug-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5082503	JH	25-Aug-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5082503	JH	25-Aug-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5082503	JH	25-Aug-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5082503	JH	25-Aug-25	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			107 %	71.5-134		5082503	JH	25-Aug-25	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5082250	MS	25-Aug-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5082250	MS	25-Aug-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5082250	MS	25-Aug-25	8015B	
Surrogate: 1-Chlorooctane			95.0 %	44.4-145		5082250	MS	25-Aug-25	8015B	
Surrogate: 1-Chlorooctadecane			94.4 %	40.6-153		5082250	MS	25-Aug-25	8015B	

**Green Analytical Laboratories**

**Soluble (DI Water Extraction)**

Chloride*	24.1		10.0	mg/kg wet	10	B252696	AWG	02-Sep-25	EPA 300.0	
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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  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220

Project: STATE DA CTB  
Project Number: 07A1988176  
Project Manager: KALEI JENNINGS  
Fax To:

Reported:  
03-Sep-25 15:09

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5082503 - Volatiles****Blank (5082503-BLK1)**

Prepared &amp; Analyzed: 25-Aug-25

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0562		mg/kg	0.0500		112	71.5-134			

**LCS (5082503-BS1)**

Prepared &amp; Analyzed: 25-Aug-25

Benzene	1.82	0.050	mg/kg	2.00		91.1	76.3-129			
Toluene	1.92	0.050	mg/kg	2.00		95.8	84.1-129			
Ethylbenzene	1.90	0.050	mg/kg	2.00		95.1	80.1-133			
m,p-Xylene	3.93	0.100	mg/kg	4.00		98.2	81.4-134			
o-Xylene	1.96	0.050	mg/kg	2.00		97.9	81.4-133			
Total Xylenes	5.89	0.150	mg/kg	6.00		98.1	81.5-134			
Surrogate: 4-Bromofluorobenzene (PID)	0.0509		mg/kg	0.0500		102	71.5-134			

**LCS Dup (5082503-BSD1)**

Prepared &amp; Analyzed: 25-Aug-25

Benzene	1.82	0.050	mg/kg	2.00		91.2	76.3-129	0.0477	15.8	
Toluene	1.89	0.050	mg/kg	2.00		94.5	84.1-129	1.39	15.9	
Ethylbenzene	1.85	0.050	mg/kg	2.00		92.7	80.1-133	2.59	16	
m,p-Xylene	3.85	0.100	mg/kg	4.00		96.2	81.4-134	1.99	16.2	
o-Xylene	1.91	0.050	mg/kg	2.00		95.5	81.4-133	2.45	16.7	
Total Xylenes	5.76	0.150	mg/kg	6.00		96.0	81.5-134	2.14	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0505		mg/kg	0.0500		101	71.5-134			

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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 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 03-Sep-25 15:09
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**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5082250 - General Prep - Organics**

<b>Blank (5082250-BLK1)</b>				Prepared: 22-Aug-25 Analyzed: 25-Aug-25						
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	48.8		mg/kg	50.0		97.5	44.4-145			
Surrogate: 1-Chlorooctadecane	49.3		mg/kg	50.0		98.7	40.6-153			

<b>LCS (5082250-BS1)</b>				Prepared: 22-Aug-25 Analyzed: 25-Aug-25						
GRO C6-C10	199	10.0	mg/kg	200		99.3	81.5-123			
DRO >C10-C28	202	10.0	mg/kg	200		101	77.7-122			
Total TPH C6-C28	401	10.0	mg/kg	400		100	80.9-121			
Surrogate: 1-Chlorooctane	54.6		mg/kg	50.0		109	44.4-145			
Surrogate: 1-Chlorooctadecane	57.4		mg/kg	50.0		115	40.6-153			

<b>LCS Dup (5082250-BSD1)</b>				Prepared: 22-Aug-25 Analyzed: 25-Aug-25						
GRO C6-C10	200	10.0	mg/kg	200		99.9	81.5-123	0.527	13	
DRO >C10-C28	200	10.0	mg/kg	200		100	77.7-122	1.01	15.6	
Total TPH C6-C28	400	10.0	mg/kg	400		100	80.9-121	0.244	18.5	
Surrogate: 1-Chlorooctane	53.0		mg/kg	50.0		106	44.4-145			
Surrogate: 1-Chlorooctadecane	55.9		mg/kg	50.0		112	40.6-153			

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 03-Sep-25 15:09
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**Soluble (DI Water Extraction) - Quality Control**

**Green Analytical Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B252696 - IC- Ion Chromatograph**

<b>Blank (B252696-BLK1)</b>		Prepared: 28-Aug-25 Analyzed: 02-Sep-25								
Chloride	ND	10.0	mg/kg wet							
<b>LCS (B252696-BS1)</b>		Prepared: 28-Aug-25 Analyzed: 02-Sep-25								
Chloride	237	10.0	mg/kg wet	250		94.6	85-115			
<b>LCS Dup (B252696-BSD1)</b>		Prepared: 28-Aug-25 Analyzed: 02-Sep-25								
Chloride	235	10.0	mg/kg wet	250		93.9	85-115	0.790	20	
<b>Matrix Spike (B252696-MS1)</b>		<b>Source: 2508382-01</b>		Prepared: 28-Aug-25 Analyzed: 02-Sep-25						
Chloride	1320	10.0	mg/kg wet	250	1210	42.4	80-120			M3
<b>Matrix Spike Dup (B252696-MSD1)</b>		<b>Source: 2508382-01</b>		Prepared: 28-Aug-25 Analyzed: 02-Sep-25						
Chloride	1370	10.0	mg/kg wet	250	1210	61.6	80-120	3.58	20	M3

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Notes and Definitions

- M3 Matrix spike recovery did not meet acceptance criteria. Accuracy of the spike is reduced since the analyte concentration in the sample is more than four times the spike level.
- 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 SM450Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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*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

Company Name: Ensolum, LLC

Project Manager: Yuki Semings

Address: 3122 National Parks Hwy  
City: Carlsbad State: NM Zip: 88220

Phone #: 817-683-2503 Email: [blank]

Project #: DTA1798176 Project Owner: STATE DACTB

Project Location: 32.476572, -103.173811

Sampler Name: Kaoru Shimada

**BILL TO**  
P.O. #: [blank]  
Company: Hilcorp  
Attn: Billy & Ina  
Address: [blank]  
City: [blank] State: [blank] Zip: [blank]

**ANALYSIS REQUEST**

Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX						DATE	TIME	TPH	BTEX	Chlorides
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER: ACID/BASE:					
HSS264	ES01	5	C1		X						8-22-25	1523	X	X	X
<i>[Large handwritten signature]</i>															

PLEASE NOTE: Location and Designer: Cardinal Safety and Health Services. Cardinal Safety and Health Services is not a certified or licensed by the state for the analysis. All other including those for impingement and any other cause whatsoever shall be deemed waived unless made in writing. Limit of use: or both of parties treated by client. An individual in no way shall Cardinal be liable for incidental or consequential damages, including without limitation, business 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. Copying of another such copy is limited to any of the above stated purposes or otherwise.

Relinquished By: [Signature] Date: 10-22-25  
Received By: [Signature] Date: 8-22-25

Delivered By: (Circle One)  UPS  Bus  Other

Observed Temp. °C: 41.4 Corrected Temp. °C: 41.7

Sample Condition:  Cool  Intact  Yes  No

Checked By: [Signature]

Thermometer ID: N13 #140 Correction Factor: -0.38

Remarks: Paykey/AE/Non/AFE: [blank]

Address: [blank]

Cardinal Phone #: [blank]

Cardinal Email Address: kshimada@ensolum.com

FCRM-006 R 3.2 10/07/21

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



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September 04, 2025

KALEI JENNINGS

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: STATE DA CTB

Enclosed are the results of analyses for samples received by the laboratory on 08/28/25 14:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](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  
 KALEI JENNINGS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	08/28/2025	Sampling Date:	08/26/2025
Reported:	09/04/2025	Sampling Type:	Soil
Project Name:	STATE DA CTB	Sampling Condition:	Cool & Intact
Project Number:	07A1988176	Sample Received By:	Tamara Oldaker
Project Location:	HILCORP 32.476572-103.1723811		

**Sample ID: FS 03 4' (H255380-01)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/29/2025	ND	1.69	84.4	2.00	3.12		
Toluene*	<0.050	0.050	08/29/2025	ND	1.83	91.4	2.00	4.41		
Ethylbenzene*	<0.050	0.050	08/29/2025	ND	1.94	96.9	2.00	4.09		
Total Xylenes*	<0.150	0.150	08/29/2025	ND	6.03	101	6.00	3.83		
Total BTEX	<0.300	0.300	08/29/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/29/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/29/2025	ND	183	91.5	200	0.513		
DRO >C10-C28*	<10.0	10.0	08/29/2025	ND	182	90.9	200	0.134		
EXT DRO >C28-C36	<10.0	10.0	08/29/2025	ND						

Surrogate: 1-Chlorooctane 95.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 91.6 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 KALEI JENNINGS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	08/28/2025	Sampling Date:	08/26/2025
Reported:	09/04/2025	Sampling Type:	Soil
Project Name:	STATE DA CTB	Sampling Condition:	Cool & Intact
Project Number:	07A1988176	Sample Received By:	Tamara Oldaker
Project Location:	HILCORP 32.476572-103.1723811		

**Sample ID: FS 04 4' (H255380-02)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/29/2025	ND	1.69	84.4	2.00	3.12		
Toluene*	<0.050	0.050	08/29/2025	ND	1.83	91.4	2.00	4.41		
Ethylbenzene*	<0.050	0.050	08/29/2025	ND	1.94	96.9	2.00	4.09		
Total Xylenes*	<0.150	0.150	08/29/2025	ND	6.03	101	6.00	3.83		
Total BTEX	<0.300	0.300	08/29/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/29/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/29/2025	ND	183	91.5	200	0.513		
DRO >C10-C28*	<10.0	10.0	08/29/2025	ND	182	90.9	200	0.134		
EXT DRO >C28-C36	<10.0	10.0	08/29/2025	ND						

Surrogate: 1-Chlorooctane 94.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 91.7 % 40.6-153

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**Analytical Results For:**

ENSOLUM  
 KALEI JENNINGS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	08/28/2025	Sampling Date:	08/26/2025
Reported:	09/04/2025	Sampling Type:	Soil
Project Name:	STATE DA CTB	Sampling Condition:	Cool & Intact
Project Number:	07A1988176	Sample Received By:	Tamara Oldaker
Project Location:	HILCORP 32.476572-103.1723811		

**Sample ID: FS 05 5' (H255380-03)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/29/2025	ND	1.69	84.4	2.00	3.12		
Toluene*	<0.050	0.050	08/29/2025	ND	1.83	91.4	2.00	4.41		
Ethylbenzene*	<0.050	0.050	08/29/2025	ND	1.94	96.9	2.00	4.09		
Total Xylenes*	<0.150	0.150	08/29/2025	ND	6.03	101	6.00	3.83		
Total BTEX	<0.300	0.300	08/29/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	08/29/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/29/2025	ND	183	91.5	200	0.513		
DRO >C10-C28*	49.4	10.0	08/29/2025	ND	182	90.9	200	0.134		
EXT DRO >C28-C36	40.1	10.0	08/29/2025	ND						

Surrogate: 1-Chlorooctane 94.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 91.9 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 KALEI JENNINGS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	08/28/2025	Sampling Date:	08/26/2025
Reported:	09/04/2025	Sampling Type:	Soil
Project Name:	STATE DA CTB	Sampling Condition:	Cool & Intact
Project Number:	07A1988176	Sample Received By:	Tamara Oldaker
Project Location:	HILCORP 32.476572-103.1723811		

**Sample ID: FS 06 5' (H255380-04)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/29/2025	ND	1.69	84.4	2.00	3.12		
Toluene*	<0.050	0.050	08/29/2025	ND	1.83	91.4	2.00	4.41		
Ethylbenzene*	<0.050	0.050	08/29/2025	ND	1.94	96.9	2.00	4.09		
Total Xylenes*	<0.150	0.150	08/29/2025	ND	6.03	101	6.00	3.83		
Total BTEX	<0.300	0.300	08/29/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>32.0</b>	16.0	08/29/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/29/2025	ND	183	91.5	200	0.513		
<b>DRO &gt;C10-C28*</b>	<b>557</b>	10.0	08/29/2025	ND	182	90.9	200	0.134		
<b>EXT DRO &gt;C28-C36</b>	<b>256</b>	10.0	08/29/2025	ND						

Surrogate: 1-Chlorooctane 95.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 101 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 KALEI JENNINGS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	08/28/2025	Sampling Date:	08/26/2025
Reported:	09/04/2025	Sampling Type:	Soil
Project Name:	STATE DA CTB	Sampling Condition:	Cool & Intact
Project Number:	07A1988176	Sample Received By:	Tamara Oldaker
Project Location:	HILCORP 32.476572-103.1723811		

**Sample ID: FS 07 5' (H255380-05)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/30/2025	ND	1.69	84.4	2.00	3.12		
Toluene*	<0.050	0.050	08/30/2025	ND	1.83	91.4	2.00	4.41		
Ethylbenzene*	<0.050	0.050	08/30/2025	ND	1.94	96.9	2.00	4.09		
Total Xylenes*	<0.150	0.150	08/30/2025	ND	6.03	101	6.00	3.83		
Total BTEX	<0.300	0.300	08/30/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	08/29/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	12.6	10.0	08/29/2025	ND	183	91.5	200	0.513		
DRO >C10-C28*	918	10.0	08/29/2025	ND	182	90.9	200	0.134		
EXT DRO >C28-C36	288	10.0	08/29/2025	ND						

Surrogate: 1-Chlorooctane 108 % 44.4-145

Surrogate: 1-Chlorooctadecane 123 % 40.6-153

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  
 KALEI JENNINGS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	08/28/2025	Sampling Date:	08/26/2025
Reported:	09/04/2025	Sampling Type:	Soil
Project Name:	STATE DA CTB	Sampling Condition:	Cool & Intact
Project Number:	07A1988176	Sample Received By:	Tamara Oldaker
Project Location:	HILCORP 32.476572-103.1723811		

**Sample ID: FS 08 5' (H255380-06)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/30/2025	ND	1.69	84.4	2.00	3.12	
Toluene*	<0.050	0.050	08/30/2025	ND	1.83	91.4	2.00	4.41	
Ethylbenzene*	<0.050	0.050	08/30/2025	ND	1.94	96.9	2.00	4.09	GC-NC
Total Xylenes*	<0.150	0.150	08/30/2025	ND	6.03	101	6.00	3.83	GC-NC
Total BTEX	<0.300	0.300	08/30/2025	ND					GC-NC

Surrogate: 4-Bromofluorobenzene (PID) 128 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>80.0</b>	16.0	08/29/2025	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>38.5</b>	10.0	08/29/2025	ND	183	91.5	200	0.513	
<b>DRO &gt;C10-C28*</b>	<b>2000</b>	10.0	08/29/2025	ND	182	90.9	200	0.134	
<b>EXT DRO &gt;C28-C36</b>	<b>559</b>	10.0	08/29/2025	ND					

Surrogate: 1-Chlorooctane 112 % 44.4-145

Surrogate: 1-Chlorooctadecane 150 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 KALEI JENNINGS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	08/28/2025	Sampling Date:	08/26/2025
Reported:	09/04/2025	Sampling Type:	Soil
Project Name:	STATE DA CTB	Sampling Condition:	Cool & Intact
Project Number:	07A1988176	Sample Received By:	Tamara Oldaker
Project Location:	HILCORP 32.476572-103.1723811		

**Sample ID: FS 09 2' (H255380-07)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/29/2025	ND	1.69	84.4	2.00	3.12		
Toluene*	<0.050	0.050	08/29/2025	ND	1.83	91.4	2.00	4.41		
Ethylbenzene*	<0.050	0.050	08/29/2025	ND	1.94	96.9	2.00	4.09		
Total Xylenes*	<0.150	0.150	08/29/2025	ND	6.03	101	6.00	3.83		
Total BTEX	<0.300	0.300	08/29/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/29/2025	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/29/2025	ND	183	91.5	200	0.513		
<b>DRO &gt;C10-C28*</b>	<b>295</b>	10.0	08/29/2025	ND	182	90.9	200	0.134		
<b>EXT DRO &gt;C28-C36</b>	<b>138</b>	10.0	08/29/2025	ND						

Surrogate: 1-Chlorooctane 93.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 97.2 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
GC-NC 8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
\*\* Samples not received at proper temperature of 6°C or below.
\*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

**BILL TO**

**ANALYSIS REQUEST**

Company Name: Ensolum, LLC.  
 Project Manager: Kalei Jennings  
 Address: 3122 National Parks Hwy  
 City: Carlsbad State: NM Zip: 88220  
 Phone #: 817-683-2503 Fax #:   
 Project #: 07A1988176 Project Owner: Hilcorp  
 Project Name: State D A CTB  
 Project Location: 32.476572, -103.1723811  
 City: Carlsbad State: NM Zip: 88220  
 Phone #:   
 Fax #:   
 P.O. #: 07A1988176  
 Company: Ensolum, LLC.  
 Attn: Kalei Jennings  
 Address: 3122 National Parks Hwy  
 City: Carlsbad  
 State: NM Zip: 88220  
 Phone #:   
 Fax #:

Sampler Name: Alex Ferrell

Lab I.D.	Sample I.D.	Sample Depth	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	Chloride	TPH	BTEX
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
HS5380	FS03	4'	C	1	X							8/26/2025	1204	X	X	X
	FS04	4'	C	1	X							8/26/2025	1207	X	X	X
	FS05	5'	C	1	X							8/26/2025	1210	X	X	X
	FS06	5'	C	1	X							8/26/2025	1213	X	X	X
	FS07	5'	C	1	X							8/26/2025	1216	X	X	X
	FS08	5'	C	1	X							8/26/2025	1219	X	X	X
	FS09	2'	C	1	X							8/26/2025	1222	X	X	X

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Relinquished By: *[Signature]* Date: 8/28/25  
 Received By: *[Signature]* Date: 8/28/25  
 Time: 1430  
 Refrindished By: *[Signature]* Received By: *[Signature]*

Delivered By: (Circle One) Observed Temp. °C 0.1  
 Corrected Temp. °C 0.4  
 Sampler - UPS - Bus - Other: FORM-006 R 3.6 02/12/25  
 Sample Condition: Cool Intact Yes  No   
 Checked By: *[Signature]*  
 Turnaround Time: Standard  Rush   
 Bacteria (only) Sample Condition: Cool Intact Yes  No   
 Observed Temp. °C Corrected Temp. °C

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



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

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September 11, 2025

KALEI JENNINGS

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: STATE DA CTB

Enclosed are the results of analyses for samples received by the laboratory on 09/05/25 9:16.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](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  
 KALEI JENNINGS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	09/05/2025	Sampling Date:	09/04/2025
Reported:	09/11/2025	Sampling Type:	Soil
Project Name:	STATE DA CTB	Sampling Condition:	Cool & Intact
Project Number:	07A1988176	Sample Received By:	Alyssa Parras
Project Location:	HILCORP 32.476572-103.1723811		

**Sample ID: SW03 A 0-7' (H255535-01)**

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	09/05/2025	ND	1.69	84.4	2.00	6.12	
Toluene*	<0.050	0.050	09/05/2025	ND	1.78	89.1	2.00	3.97	
Ethylbenzene*	<0.050	0.050	09/05/2025	ND	1.84	91.9	2.00	2.87	
Total Xylenes*	<0.150	0.150	09/05/2025	ND	5.67	94.5	6.00	2.44	
Total BTEX	<0.300	0.300	09/05/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 77.5-125

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/05/2025	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/05/2025	ND	202	101	200	4.17	
<b>DRO &gt;C10-C28*</b>	<b>126</b>	10.0	09/05/2025	ND	215	108	200	6.58	
<b>EXT DRO &gt;C28-C36</b>	<b>117</b>	10.0	09/05/2025	ND					

Surrogate: 1-Chlorooctane 74.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 75.7 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM  
 KALEI JENNINGS  
 3122 NATIONAL PARKS HWY  
 CARLSBAD NM, 88220  
 Fax To:

Received:	09/05/2025	Sampling Date:	09/04/2025
Reported:	09/11/2025	Sampling Type:	Soil
Project Name:	STATE DA CTB	Sampling Condition:	Cool & Intact
Project Number:	07A1988176	Sample Received By:	Alyssa Parras
Project Location:	HILCORP 32.476572-103.1723811		

**Sample ID: SW04 A 0-2' (H255535-02)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/05/2025	ND	1.69	84.4	2.00	6.12		
Toluene*	<0.050	0.050	09/05/2025	ND	1.78	89.1	2.00	3.97		
Ethylbenzene*	<0.050	0.050	09/05/2025	ND	1.84	91.9	2.00	2.87		
Total Xylenes*	<0.150	0.150	09/05/2025	ND	5.67	94.5	6.00	2.44		
Total BTEX	<0.300	0.300	09/05/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 77.5-125

Chloride, SM4500CI-B		mg/kg		Analyzed By: KH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/05/2025	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	09/08/2025	ND	192	96.0	200	0.460		
<b>DRO &gt;C10-C28*</b>	<b>367</b>	10.0	09/08/2025	ND	205	103	200	1.33		
<b>EXT DRO &gt;C28-C36</b>	<b>142</b>	10.0	09/08/2025	ND						

Surrogate: 1-Chlorooctane 96.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 86.1 % 40.6-153

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  
Samples reported on an as received basis (wet) unless otherwise noted on report

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\*=Accredited Analyte

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



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

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

**BILL TO**

**ANALYSIS REQUEST**

Company Name: Ensolum, LLC  
 Project Manager: Kalei Jennings  
 Address: 3122 National Parks Hwy  
 City: Carlsbad State: NM Zip: 88220  
 Phone #: 817-683-2503 Fax #:   
 Project #: 07A1988176 Project Owner: Hilcorp  
 Project Name: State D A CTB  
 Project Location: 32.476572, -103.1723811  
 Sampler Name: Alex Ferrell  
 P.O. #: 07A1988176  
 Company: Ensolum, LLC.  
 Attn: Kalei Jennings  
 Address: 3122 National Parks Hwy  
 City: Carlsbad  
 State: NM Zip: 88220  
 Phone #:   
 Fax #:

Lab I.D.	Sample I.D.	Sample Depth	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	Chloride	TPH	BTEX
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
H255335	SW03A	0-7'	C	1	X							9/4/2025	1645	X	X	X
	SW04A	0-2'	C	1	X							9/4/2025	1650	X	X	X

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Relinquished By: *Mickels* Date: *9/3/25* Time: *12:40* Received By: *Mickels* Date: *9/3/25* Time: *12:40*

Relinquished By: *Mickels* Date: *9/3/25* Time: *12:40* Received By: *Mickels* Date: *9/3/25* Time: *12:40*

Delivered By: (Circle One) Observed Temp. °C: *1.4* Corrected Temp. °C: *1.7* Sample Condition:  Cool  Intact  Yes  No

Sampler - UPS - Bus - Other: FORM-006 R 3.6 02/12/25

Turnaround Time: Standard  Rush  5-DAY Bacteria (only) Sample Condition:  Cool  Intact  Yes  No

Thermometer ID #140 Correction Factor +0.3°C

Remarks: *AP*

Verbal Result:  Yes  No Add'l Phone #:   
 All Results are emailed. Please provide Email address: *A.Ferrell@ensolum.com* *D.Henemann@ensolum.com* *K.Jennings@ensolum.com*

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



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

September 17, 2025

KALEI JENNINGS

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: STATE DA CTB

Enclosed are the results of analyses for samples received by the laboratory on 09/05/25 9:16.

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

[www.tceq.texas.gov/field/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:32
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Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS 03 0.5'	H255533-01	Soil	04-Sep-25 14:12	05-Sep-25 09:16
SS 04 0.5'	H255533-02	Soil	04-Sep-25 14:13	05-Sep-25 09:16
SS 05 0.5'	H255533-03	Soil	04-Sep-25 14:14	05-Sep-25 09:16
SS 06 0.5'	H255533-04	Soil	04-Sep-25 14:15	05-Sep-25 09:16
SS 07 0.5'	H255533-05	Soil	04-Sep-25 14:16	05-Sep-25 09:16
SS 08 0.5'	H255533-06	Soil	04-Sep-25 14:17	05-Sep-25 09:16
SS 09 0.5'	H255533-07	Soil	04-Sep-25 14:18	05-Sep-25 09:16
SS 10 0.5'	H255533-08	Soil	04-Sep-25 14:19	05-Sep-25 09:16
SS 11 0.5'	H255533-09	Soil	04-Sep-25 14:20	05-Sep-25 09:16
SS 12 0.5'	H255533-10	Soil	04-Sep-25 15:50	05-Sep-25 09:16
SS 13 0.5'	H255533-11	Soil	04-Sep-25 15:52	05-Sep-25 09:16
SS 14 0.5'	H255533-12	Soil	04-Sep-25 15:54	05-Sep-25 09:16
SS 15 0.5'	H255533-13	Soil	04-Sep-25 15:56	05-Sep-25 09:16
SS 16 0.5'	H255533-14	Soil	04-Sep-25 15:58	05-Sep-25 09:16
SS 17 0.5'	H255533-15	Soil	04-Sep-25 16:00	05-Sep-25 09:16
SS 18 0.5'	H255533-16	Soil	04-Sep-25 16:02	05-Sep-25 09:16

09/17/25 - Client changed the sample ID on all samples (see COC). This is the revised report and will replace the one sent on 09/11/25.

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:32
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**SS 03 0.5'**  
**H255533-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	5090816	AC	08-Sep-25	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090517	JH	05-Sep-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			117 %		71.5-134	5090517	JH	05-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090505	MS	05-Sep-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5090505	MS	05-Sep-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5090505	MS	05-Sep-25	8015B	

Surrogate: 1-Chlorooctane			95.5 %		44.4-145	5090505	MS	05-Sep-25	8015B	
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Surrogate: 1-Chlorooctadecane			97.6 %		40.6-153	5090505	MS	05-Sep-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:32
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**SS 04 0.5'  
H255533-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	5090816	AC	08-Sep-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090517	JH	05-Sep-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			119 %	71.5-134		5090517	JH	05-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090505	MS	05-Sep-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5090505	MS	05-Sep-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5090505	MS	05-Sep-25	8015B	

Surrogate: 1-Chlorooctane			92.0 %	44.4-145		5090505	MS	05-Sep-25	8015B	
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Surrogate: 1-Chlorooctadecane			93.3 %	40.6-153		5090505	MS	05-Sep-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:32
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**SS 05 0.5'  
H255533-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	5090816	AC	08-Sep-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090517	JH	05-Sep-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			120 %	71.5-134		5090517	JH	05-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090505	MS	05-Sep-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5090505	MS	05-Sep-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5090505	MS	05-Sep-25	8015B	

Surrogate: 1-Chlorooctane			91.8 %	44.4-145		5090505	MS	05-Sep-25	8015B	
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Surrogate: 1-Chlorooctadecane			93.4 %	40.6-153		5090505	MS	05-Sep-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:32
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**SS 06 0.5'**  
**H255533-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	5090816	AC	08-Sep-25	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090517	JH	05-Sep-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			119 %	71.5-134		5090517	JH	05-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090505	MS	05-Sep-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5090505	MS	05-Sep-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5090505	MS	05-Sep-25	8015B	

Surrogate: 1-Chlorooctane			90.6 %	44.4-145		5090505	MS	05-Sep-25	8015B	
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Surrogate: 1-Chlorooctadecane			92.7 %	40.6-153		5090505	MS	05-Sep-25	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:32
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**SS 07 0.5'**  
**H255533-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	5090816	AC	08-Sep-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090517	JH	05-Sep-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			122 %	71.5-134		5090517	JH	05-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
<b>DRO &gt;C10-C28*</b>	<b>83.5</b>		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>110</b>		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	

Surrogate: 1-Chlorooctane			85.9 %	44.4-145		5090512	MS	05-Sep-25	8015B	
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Surrogate: 1-Chlorooctadecane			84.2 %	40.6-153		5090512	MS	05-Sep-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:32
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**SS 08 0.5'**  
**H255533-06 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	5090816	AC	08-Sep-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090517	JH	05-Sep-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			118 %		71.5-134	5090517	JH	05-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
DRO >C10-C28*	81.1		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
EXT DRO >C28-C36	94.0		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	

Surrogate: 1-Chlorooctane			87.6 %		44.4-145	5090512	MS	05-Sep-25	8015B	
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Surrogate: 1-Chlorooctadecane			87.5 %		40.6-153	5090512	MS	05-Sep-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:32
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**SS 09 0.5'**  
**H255533-07 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	5090816	AC	08-Sep-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090517	JH	05-Sep-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			124 %	71.5-134		5090517	JH	05-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
DRO >C10-C28*	11.4		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
EXT DRO >C28-C36	16.7		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	

Surrogate: 1-Chlorooctane			87.2 %	44.4-145		5090512	MS	05-Sep-25	8015B	
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Surrogate: 1-Chlorooctadecane			84.0 %	40.6-153		5090512	MS	05-Sep-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:32
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**SS 10 0.5'**  
**H255533-08 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	5090816	AC	08-Sep-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090517	JH	05-Sep-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			121 %		71.5-134	5090517	JH	05-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	

Surrogate: 1-Chlorooctane			89.6 %		44.4-145	5090512	MS	05-Sep-25	8015B	
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Surrogate: 1-Chlorooctadecane			85.8 %		40.6-153	5090512	MS	05-Sep-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:32
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**SS 11 0.5'**  
**H255533-09 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	5090816	AC	08-Sep-25	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090517	JH	05-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090517	JH	05-Sep-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			120 %	71.5-134		5090517	JH	05-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	

Surrogate: 1-Chlorooctane			78.9 %	44.4-145		5090512	MS	05-Sep-25	8015B	
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Surrogate: 1-Chlorooctadecane			75.3 %	40.6-153		5090512	MS	05-Sep-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:32
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**SS 12 0.5'  
H255533-10 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	5090816	AC	08-Sep-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090517	JH	06-Sep-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			128 %	71.5-134		5090517	JH	06-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
DRO >C10-C28*	31.3		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
EXT DRO >C28-C36	39.8		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	

Surrogate: 1-Chlorooctane			109 %	44.4-145		5090512	MS	05-Sep-25	8015B	
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Surrogate: 1-Chlorooctadecane			106 %	40.6-153		5090512	MS	05-Sep-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:32
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**SS 13 0.5'  
H255533-11 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	5090816	AC	08-Sep-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090517	JH	06-Sep-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			118 %		71.5-134	5090517	JH	06-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090512	MS	08-Sep-25	8015B	
DRO >C10-C28*	<b>526</b>		10.0	mg/kg	1	5090512	MS	08-Sep-25	8015B	
EXT DRO >C28-C36	<b>388</b>		10.0	mg/kg	1	5090512	MS	08-Sep-25	8015B	

Surrogate: 1-Chlorooctane			89.6 %		44.4-145	5090512	MS	08-Sep-25	8015B	
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Surrogate: 1-Chlorooctadecane			106 %		40.6-153	5090512	MS	08-Sep-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:32
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**SS 14 0.5'**  
**H255533-12 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>16.0</b>		16.0	mg/kg	4	5090816	AC	08-Sep-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090517	JH	06-Sep-25	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			121 %	71.5-134		5090517	JH	06-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
<b>DRO &gt;C10-C28*</b>	<b>54.5</b>		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>75.1</b>		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	

<i>Surrogate: 1-Chlorooctane</i>			79.9 %	44.4-145		5090512	MS	05-Sep-25	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			78.4 %	40.6-153		5090512	MS	05-Sep-25	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:32
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**SS 15 0.5'  
H255533-13 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	5090816	AC	08-Sep-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090517	JH	06-Sep-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			118 %	71.5-134		5090517	JH	06-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
DRO >C10-C28*	94.4		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
EXT DRO >C28-C36	114		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	

Surrogate: 1-Chlorooctane			81.7 %	44.4-145		5090512	MS	05-Sep-25	8015B	
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Surrogate: 1-Chlorooctadecane			82.3 %	40.6-153		5090512	MS	05-Sep-25	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:32
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**SS 16 0.5'**  
**H255533-14 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>32.0</b>		16.0	mg/kg	4	5090816	AC	08-Sep-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090517	JH	06-Sep-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			117 %	71.5-134		5090517	JH	06-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090512	MS	08-Sep-25	8015B	
<b>DRO &gt;C10-C28*</b>	<b>499</b>		10.0	mg/kg	1	5090512	MS	08-Sep-25	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>428</b>		10.0	mg/kg	1	5090512	MS	08-Sep-25	8015B	

Surrogate: 1-Chlorooctane			91.9 %	44.4-145		5090512	MS	08-Sep-25	8015B	
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Surrogate: 1-Chlorooctadecane			101 %	40.6-153		5090512	MS	08-Sep-25	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:32
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**SS 17 0.5'  
H255533-15 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	5090527	KH	05-Sep-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090517	JH	06-Sep-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			118 %	71.5-134		5090517	JH	06-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090512	MS	08-Sep-25	8015B	
DRO >C10-C28*	283		10.0	mg/kg	1	5090512	MS	08-Sep-25	8015B	
EXT DRO >C28-C36	231		10.0	mg/kg	1	5090512	MS	08-Sep-25	8015B	

Surrogate: 1-Chlorooctane			84.3 %	44.4-145		5090512	MS	08-Sep-25	8015B	
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Surrogate: 1-Chlorooctadecane			89.8 %	40.6-153		5090512	MS	08-Sep-25	8015B	
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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 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:32
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**SS 18 0.5'**  
**H255533-16 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>32.0</b>		16.0	mg/kg	4	5090527	KH	05-Sep-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090517	JH	06-Sep-25	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			119 %	71.5-134		5090517	JH	06-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090512	MS	08-Sep-25	8015B	
<b>DRO &gt;C10-C28*</b>	<b>853</b>		10.0	mg/kg	1	5090512	MS	08-Sep-25	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>577</b>		10.0	mg/kg	1	5090512	MS	08-Sep-25	8015B	

<i>Surrogate: 1-Chlorooctane</i>			90.4 %	44.4-145		5090512	MS	08-Sep-25	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			132 %	40.6-153		5090512	MS	08-Sep-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:32
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**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5090527 - 1:4 DI Water**

<b>Blank (5090527-BLK1)</b>				Prepared & Analyzed: 05-Sep-25						
Chloride	ND	16.0	mg/kg							
<b>LCS (5090527-BS1)</b>				Prepared & Analyzed: 05-Sep-25						
Chloride	448	16.0	mg/kg	400		112	80-120			
<b>LCS Dup (5090527-BSD1)</b>				Prepared & Analyzed: 05-Sep-25						
Chloride	432	16.0	mg/kg	400		108	80-120	3.64	20	

**Batch 5090816 - 1:4 DI Water**

<b>Blank (5090816-BLK1)</b>				Prepared: 05-Sep-25 Analyzed: 08-Sep-25						
Chloride	ND	16.0	mg/kg							
<b>LCS (5090816-BS1)</b>				Prepared: 05-Sep-25 Analyzed: 08-Sep-25						
Chloride	432	16.0	mg/kg	400		108	80-120			
<b>LCS Dup (5090816-BSD1)</b>				Prepared: 05-Sep-25 Analyzed: 08-Sep-25						
Chloride	432	16.0	mg/kg	400		108	80-120	0.00	20	

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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:32
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**Volatile Organic Compounds by EPA Method 8021 - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5090517 - Volatiles**

**Blank (5090517-BLK1)**

Prepared & Analyzed: 05-Sep-25

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0580		mg/kg	0.0500		116	71.5-134			

**LCS (5090517-BS1)**

Prepared & Analyzed: 05-Sep-25

Benzene	1.91	0.050	mg/kg	2.00		95.7	76.3-129			
Toluene	2.08	0.050	mg/kg	2.00		104	84.1-129			
Ethylbenzene	2.21	0.050	mg/kg	2.00		110	80.1-133			
m,p-Xylene	4.59	0.100	mg/kg	4.00		115	81.4-134			
o-Xylene	2.34	0.050	mg/kg	2.00		117	81.4-133			
Total Xylenes	6.93	0.150	mg/kg	6.00		115	81.5-134			
Surrogate: 4-Bromofluorobenzene (PID)	0.0556		mg/kg	0.0500		111	71.5-134			

**LCS Dup (5090517-BSD1)**

Prepared & Analyzed: 05-Sep-25

Benzene	1.97	0.050	mg/kg	2.00		98.6	76.3-129	3.04	15.8	
Toluene	2.20	0.050	mg/kg	2.00		110	84.1-129	5.19	15.9	
Ethylbenzene	2.30	0.050	mg/kg	2.00		115	80.1-133	3.92	16	
m,p-Xylene	4.80	0.100	mg/kg	4.00		120	81.4-134	4.57	16.2	
o-Xylene	2.45	0.050	mg/kg	2.00		122	81.4-133	4.35	16.7	
Total Xylenes	7.25	0.150	mg/kg	6.00		121	81.5-134	4.49	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0573		mg/kg	0.0500		115	71.5-134			

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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:32
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**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5090505 - General Prep - Organics**

<b>Blank (5090505-BLK1)</b>		Prepared & Analyzed: 05-Sep-25								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	54.8		mg/kg	50.0		110	44.4-145			
Surrogate: 1-Chlorooctadecane	55.1		mg/kg	50.0		110	40.6-153			

<b>LCS (5090505-BS1)</b>		Prepared & Analyzed: 05-Sep-25								
GRO C6-C10	214	10.0	mg/kg	200		107	81.5-123			
DRO >C10-C28	215	10.0	mg/kg	200		108	77.7-122			
Total TPH C6-C28	429	10.0	mg/kg	400		107	80.9-121			
Surrogate: 1-Chlorooctane	58.6		mg/kg	50.0		117	44.4-145			
Surrogate: 1-Chlorooctadecane	60.7		mg/kg	50.0		121	40.6-153			

<b>LCS Dup (5090505-BSD1)</b>		Prepared & Analyzed: 05-Sep-25								
GRO C6-C10	199	10.0	mg/kg	200		99.3	81.5-123	7.35	13	
DRO >C10-C28	199	10.0	mg/kg	200		99.6	77.7-122	7.66	15.6	
Total TPH C6-C28	398	10.0	mg/kg	400		99.4	80.9-121	7.50	18.5	
Surrogate: 1-Chlorooctane	53.7		mg/kg	50.0		107	44.4-145			
Surrogate: 1-Chlorooctadecane	53.6		mg/kg	50.0		107	40.6-153			

**Batch 5090512 - General Prep - Organics**

<b>Blank (5090512-BLK1)</b>		Prepared & Analyzed: 05-Sep-25								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	50.5		mg/kg	50.0		101	44.4-145			
Surrogate: 1-Chlorooctadecane	48.7		mg/kg	50.0		97.3	40.6-153			

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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:32
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**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5090512 - General Prep - Organics**

<b>LCS (5090512-BS1)</b>		Prepared & Analyzed: 05-Sep-25								
GRO C6-C10	202	10.0	mg/kg	200		101	81.5-123			
DRO >C10-C28	215	10.0	mg/kg	200		108	77.7-122			
Total TPH C6-C28	417	10.0	mg/kg	400		104	80.9-121			
Surrogate: 1-Chlorooctane	54.8		mg/kg	50.0		110	44.4-145			
Surrogate: 1-Chlorooctadecane	54.1		mg/kg	50.0		108	40.6-153			
<b>LCS Dup (5090512-BSD1)</b>		Prepared & Analyzed: 05-Sep-25								
GRO C6-C10	193	10.0	mg/kg	200		96.7	81.5-123	4.17	13	
DRO >C10-C28	202	10.0	mg/kg	200		101	77.7-122	6.58	15.6	
Total TPH C6-C28	395	10.0	mg/kg	400		98.8	80.9-121	5.41	18.5	
Surrogate: 1-Chlorooctane	56.5		mg/kg	50.0		113	44.4-145			
Surrogate: 1-Chlorooctadecane	51.3		mg/kg	50.0		103	40.6-153			

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**Notes and Definitions**

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

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

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

<b>Company Name:</b> Ensolum, LLC <b>Project Manager:</b> Kalei Jennings <b>Address:</b> 3122 National Parks Hwy <b>City:</b> Carlsbad <b>State:</b> NM <b>Zip:</b> 88220 <b>Phone #:</b> 817-683-2503 <b>Fax #:</b> <b>Project #:</b> 07A1988176 <b>Project Owner:</b> Hilcorp <b>Project Name:</b> State D A CTB <b>Project Location:</b> 32.476572, -103.1723811 <b>Sampler Name:</b> Alex Ferrell		<b>BILL TO</b> <b>P.O. #:</b> 07A1988176 <b>Company:</b> Ensolum, LLC. <b>Attn:</b> Kalei Jennings <b>Address:</b> 3122 National Parks Hwy <b>City:</b> Carlsbad <b>State:</b> NM <b>Zip:</b> 88220 <b>Phone #:</b> <b>Fax #:</b>		<b>ANALYSIS REQUEST</b>	
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Lab I.D.	Sample I.D.	Sample Depth	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX						DATE	TIME	Chloride	TPH	BTEX
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
H355583	*	0.5'	G 1	1	X						9/4/2025	1412	X	X	X
	SS02 4	0.5'	G 1	1	X						9/4/2025	1413	X	X	X
	SS03 5	0.5'	G 1	1	X						9/4/2025	1414	X	X	X
	SS04 6	0.5'	G 1	1	X						9/4/2025	1415	X	X	X
	SS05 7	0.5'	G 1	1	X						9/4/2025	1416	X	X	X
	SS06 8	0.5'	G 1	1	X						9/4/2025	1417	X	X	X
	SS07 9	0.5'	G 1	1	X						9/4/2025	1418	X	X	X
	SS08 10	0.5'	G 1	1	X						9/4/2025	1419	X	X	X
	SS09 11	0.5'	G 1	1	X						9/4/2025	1420	X	X	X
	SS10 12	0.5'	G 1	1	X						9/4/2025	1550	X	X	X

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Relinquished By: *[Signature]* Date: 9/15/25  
 Received By: *[Signature]* Date: 9/15/25  
 Delivered By: (Circle One) *[Signature]* Observed Temp. °C: 14.5  
 Corrected Temp. °C: 14.5

Sampler - UPS - Bus - Other: FORM-006 R.3.6 02/12/25  
 Sample Condition:  Cool  Intact  
 Checked By: *[Signature]*

Turnaround Time: Standard  Rush  5-DAY  
 Thermometer ID #140 Correction Factor +0.3°C  
 Bacteria (only) Sample Condition:  Cool  Intact  
 Corrected Temp. °C: *9/15/25*

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



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

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

**BILL TO**

**ANALYSIS REQUEST**

Company Name: Ensolum, LLC.  
 Project Manager: Kalei Jennings  
 Address: 3122 National Parks Hwy  
 City: Carlsbad State: NM Zip: 88220  
 Phone #: 817-683-2503 Fax #:   
 Project #: 07A1988176 Project Owner: Hilcorp  
 Project Name: State D A CTB  
 Project Location: 32.476572, -103.1723811  
 Sampler Name: Alex Ferrell  
 P.O. #: 07A1988176  
 Company: Ensolum, LLC.  
 Attn: Kalei Jennings  
 Address: 3122 National Parks Hwy  
 City: Carlsbad  
 State: NM Zip: 88220  
 Phone #:   
 Fax #:

Lab I.D.	Sample I.D.	Sample Depth	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	Chloride	TPH	BTEX
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
H25533	*															
11	SS113	0.5'	G	1	X							9/4/2025	1552	X	X	X
12	SS114	0.5'	G	1	X							9/4/2025	1554	X	X	X
13	SS115	0.5'	G	1	X							9/4/2025	1556	X	X	X
14	SS116	0.5'	G	1	X							9/4/2025	1558	X	X	X
15	SS117	0.5'	G	1	X							9/4/2025	1600	X	X	X
16	SS118	0.5'	G	1	X							9/4/2025	1602	X	X	X

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Relinquished By: *AF*  
 Date: 09/08/25  
 Time: 07:40  
 Received By: *M Kelly*  
 Date: 9-5-25  
 Time: *8:15*  
 Received By: *APaves*

Delivered By: (Circle One) *APaves*  
 Observed Temp. °C: *14.5*  
 Corrected Temp. °C: *1.72*  
 Sampler - UPS - Bus - Other: FORM-006 R.3.6 02/12/25  
 Sample Condition:  Intact  Yes  No  
 Checked By: *AP*

Turnaround Time:  Standard  Rush  5-DAY  
 Thermometer ID #140  
 Correction Factor +0.3°C  
 Bacteria (only) Sample Condition:  Cool  Intact  Yes  No  
 Observed Temp. °C: *14.5*  
 Corrected Temp. °C: *1.72*

Remarks: *\*Customer requested ITD changes 9/15/25*

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



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

September 17, 2025

KALEI JENNINGS

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: STATE DA CTB

Enclosed are the results of analyses for samples received by the laboratory on 08/28/25 14:30.

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

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:35
--	---	------------------------------

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FS 10 2'	H255371-01	Soil	26-Aug-25 12:25	28-Aug-25 14:30

09/17/25 - Client changed the sample depth (see COC). This is the revised report and will replace the one sent on 08/28/25.

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:35
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**FS 10 2'**  
**H255371-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	5082840	AC	28-Aug-25	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5082739	JH	28-Aug-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5082739	JH	28-Aug-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5082739	JH	28-Aug-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5082739	JH	28-Aug-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5082739	JH	28-Aug-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			113 %	71.5-134		5082739	JH	28-Aug-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5082810	MS	28-Aug-25	8015B	
DRO >C10-C28*	<b>272</b>		10.0	mg/kg	1	5082810	MS	28-Aug-25	8015B	
EXT DRO >C28-C36	<b>92.8</b>		10.0	mg/kg	1	5082810	MS	28-Aug-25	8015B	

Surrogate: 1-Chlorooctane			118 %	44.4-145		5082810	MS	28-Aug-25	8015B	
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Surrogate: 1-Chlorooctadecane			126 %	40.6-153		5082810	MS	28-Aug-25	8015B	
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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 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:35
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**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 5082840 - 1:4 DI Water</b>										
<b>Blank (5082840-BLK1)</b>										
				Prepared & Analyzed: 28-Aug-25						
Chloride	ND	16.0	mg/kg							
<b>LCS (5082840-BS1)</b>										
				Prepared & Analyzed: 28-Aug-25						
Chloride	416	16.0	mg/kg	400		104	80-120			
<b>LCS Dup (5082840-BSD1)</b>										
				Prepared & Analyzed: 28-Aug-25						
Chloride	416	16.0	mg/kg	400		104	80-120	0.00	20	

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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:35
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**Volatile Organic Compounds by EPA Method 8021 - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5082739 - Volatiles**

**Blank (5082739-BLK1)**

Prepared: 27-Aug-25 Analyzed: 28-Aug-25

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0568		mg/kg	0.0500		114	71.5-134			

**LCS (5082739-BS1)**

Prepared: 27-Aug-25 Analyzed: 28-Aug-25

Benzene	1.79	0.050	mg/kg	2.00		89.3	76.3-129			
Toluene	1.89	0.050	mg/kg	2.00		94.5	84.1-129			
Ethylbenzene	1.90	0.050	mg/kg	2.00		94.8	80.1-133			
m,p-Xylene	3.93	0.100	mg/kg	4.00		98.3	81.4-134			
o-Xylene	1.93	0.050	mg/kg	2.00		96.7	81.4-133			
Total Xylenes	5.87	0.150	mg/kg	6.00		97.8	81.5-134			
Surrogate: 4-Bromofluorobenzene (PID)	0.0495		mg/kg	0.0500		98.9	71.5-134			

**LCS Dup (5082739-BSD1)**

Prepared: 27-Aug-25 Analyzed: 28-Aug-25

Benzene	1.81	0.050	mg/kg	2.00		90.3	76.3-129	1.14	15.8	
Toluene	1.92	0.050	mg/kg	2.00		96.2	84.1-129	1.79	15.9	
Ethylbenzene	1.93	0.050	mg/kg	2.00		96.4	80.1-133	1.62	16	
m,p-Xylene	3.98	0.100	mg/kg	4.00		99.6	81.4-134	1.29	16.2	
o-Xylene	1.99	0.050	mg/kg	2.00		99.5	81.4-133	2.81	16.7	
Total Xylenes	5.97	0.150	mg/kg	6.00		99.5	81.5-134	1.79	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0515		mg/kg	0.0500		103	71.5-134			

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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 17-Sep-25 14:35
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**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5082810 - General Prep - Organics**

<b>Blank (5082810-BLK1)</b>		Prepared & Analyzed: 28-Aug-25								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	56.5		mg/kg	50.0		113	44.4-145			
Surrogate: 1-Chlorooctadecane	56.1		mg/kg	50.0		112	40.6-153			

<b>LCS (5082810-BS1)</b>		Prepared & Analyzed: 28-Aug-25								
GRO C6-C10	234	10.0	mg/kg	200		117	81.5-123			
DRO >C10-C28	234	10.0	mg/kg	200		117	77.7-122			
Total TPH C6-C28	468	10.0	mg/kg	400		117	80.9-121			
Surrogate: 1-Chlorooctane	63.3		mg/kg	50.0		127	44.4-145			
Surrogate: 1-Chlorooctadecane	64.3		mg/kg	50.0		129	40.6-153			

<b>LCS Dup (5082810-BSD1)</b>		Prepared & Analyzed: 28-Aug-25								
GRO C6-C10	232	10.0	mg/kg	200		116	81.5-123	0.857	13	
DRO >C10-C28	235	10.0	mg/kg	200		117	77.7-122	0.265	15.6	
Total TPH C6-C28	467	10.0	mg/kg	400		117	80.9-121	0.294	18.5	
Surrogate: 1-Chlorooctane	61.9		mg/kg	50.0		124	44.4-145			
Surrogate: 1-Chlorooctadecane	63.9		mg/kg	50.0		128	40.6-153			

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC  
 Project Manager: Kalei Jennings  
 Address: 3122 National Parks Hwy  
 City: Carlsbad State: NM Zip: 88220  
 Phone #: 817-683-2503 Fax #:   
 Project #: 07A1988176 Project Owner: Hillcorp  
 Project Name: State D A CTB  
 Project Location: 32.476572, -103.1723811  
 Sampler Name: Alex Ferrell

**BILL TO**  
 P.O. #: 07A1988176  
 Company: Ensolum, LLC.  
 Attn: Kalei Jennings  
 Address: 3122 National Parks Hwy  
 City: Carlsbad  
 State: NM Zip: 88220  
 Phone #:   
 Fax #:

**ANALYSIS REQUEST**

Lab I.D.	Sample I.D.	Sample Depth	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	Chloride	TPH	BTEX
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
HS5311	FS10	2' 5" *	C	1		X					8/26/2025	1225	X	X	X

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Relinquished By: *[Signature]*  
 Date: 8/26/25  
 Time: 1430  
 Received By: *[Signature]*  
 Date:   
 Time:   
 Verbal Result:  Yes  No  Add'l Phone #:   
 All Results are emailed. Please provide Email address: AFerrell@ensolum.com KJennings@ensolum.com

Delivered By: (Circle One) Observed Temp. °C D.I.  
 Corrected Temp. °C 0.4  
 Sample Condition: Cool  Intact   
 Checked By: *[Signature]*  
 Turnaround Time: SAM E DAY  
 Thermometer ID #140  
 Correction Factor +0.3°C  
 Standard  Rush   
 Bacteria (only) Sample Condition: Cool  Intact   
 Observed Temp. °C  
 Corrected Temp. °C

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



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

December 03, 2025

KALEI JENNINGS

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: STATE DA CTB

Enclosed are the results of analyses for samples received by the laboratory on 09/05/25 9:16.

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

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 03-Dec-25 17:59
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Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FS 13 2'	H255534-01	Soil	04-Sep-25 11:00	05-Sep-25 09:16
FS 14 2'	H255534-02	Soil	04-Sep-25 11:03	05-Sep-25 09:16
FS 15 2'	H255534-03	Soil	04-Sep-25 11:05	05-Sep-25 09:16
FS 16 2'	H255534-04	Soil	04-Sep-25 16:54	05-Sep-25 09:16
FS 17 2'	H255534-05	Soil	04-Sep-25 11:07	05-Sep-25 09:16
FS 18 2'-7'	H255534-06	Soil	04-Sep-25 11:09	05-Sep-25 09:16
FS 19 2'	H255534-07	Soil	04-Sep-25 11:11	05-Sep-25 09:16
FS 08 6'	H255534-08	Soil	04-Sep-25 14:26	05-Sep-25 09:16

09/17/25 - Client changed the sample depth on -08 (see COC). This is the revised report and will replace the one sent on 09/11/25.

12/03/25 - Client changed the sample depth on -06 (see COC). This is the 2nd revision of the report and will replace the one sent on 09/17/25.

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 03-Dec-25 17:59
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**FS 13 2'  
H255534-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	5090527	KH	05-Sep-25	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090517	JH	06-Sep-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			122 %	71.5-134		5090517	JH	06-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
DRO >C10-C28*	<b>109</b>		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
EXT DRO >C28-C36	<b>55.0</b>		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	

Surrogate: 1-Chlorooctane			75.5 %	44.4-145		5090512	MS	05-Sep-25	8015B	
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Surrogate: 1-Chlorooctadecane			76.0 %	40.6-153		5090512	MS	05-Sep-25	8015B	
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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 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 03-Dec-25 17:59
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**FS 14 2'**  
**H255534-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	5090527	KH	05-Sep-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090517	JH	06-Sep-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			120 %	71.5-134		5090517	JH	06-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
DRO >C10-C28*	<b>158</b>		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
EXT DRO >C28-C36	<b>94.9</b>		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	

Surrogate: 1-Chlorooctane			86.6 %	44.4-145		5090512	MS	05-Sep-25	8015B	
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Surrogate: 1-Chlorooctadecane			88.3 %	40.6-153		5090512	MS	05-Sep-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 03-Dec-25 17:59
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**FS 15 2'  
H255534-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	5090527	KH	05-Sep-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090517	JH	06-Sep-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			117 %	71.5-134		5090517	JH	06-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
DRO >C10-C28*	<b>354</b>		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
EXT DRO >C28-C36	<b>267</b>		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	

Surrogate: 1-Chlorooctane			89.2 %	44.4-145		5090512	MS	05-Sep-25	8015B	
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Surrogate: 1-Chlorooctadecane			95.3 %	40.6-153		5090512	MS	05-Sep-25	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 03-Dec-25 17:59
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**FS 16 2'**  
**H255534-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>32.0</b>		16.0	mg/kg	4	5090527	KH	05-Sep-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090517	JH	06-Sep-25	8021B	
<b>Total Xylenes*</b>	<b>0.325</b>		0.150	mg/kg	50	5090517	JH	06-Sep-25	8021B	GC-NC1
<b>Total BTEX</b>	<b>0.325</b>		0.300	mg/kg	50	5090517	JH	06-Sep-25	8021B	GC-NC1

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			94.7 %	71.5-134		5090517	JH	06-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<50.0		50.0	mg/kg	5	5090512	MS	05-Sep-25	8015B	
<b>DRO &gt;C10-C28*</b>	<b>844</b>		50.0	mg/kg	5	5090512	MS	05-Sep-25	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>435</b>		50.0	mg/kg	5	5090512	MS	05-Sep-25	8015B	

<i>Surrogate: 1-Chlorooctane</i>			102 %	44.4-145		5090512	MS	05-Sep-25	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			123 %	40.6-153		5090512	MS	05-Sep-25	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 03-Dec-25 17:59
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**FS 17 2'  
H255534-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	5090527	KH	05-Sep-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090532	JH	05-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090532	JH	05-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090532	JH	05-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090532	JH	05-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090532	JH	05-Sep-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			111 %	77.5-125		5090532	JH	05-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
DRO >C10-C28*	<b>101</b>		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
EXT DRO >C28-C36	<b>91.3</b>		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	

Surrogate: 1-Chlorooctane			88.4 %	44.4-145		5090512	MS	05-Sep-25	8015B	
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Surrogate: 1-Chlorooctadecane			89.1 %	40.6-153		5090512	MS	05-Sep-25	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 03-Dec-25 17:59
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**FS 18 2'-7'**  
**H255534-06 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	5090527	KH	05-Sep-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090532	JH	05-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090532	JH	05-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090532	JH	05-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090532	JH	05-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090532	JH	05-Sep-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			114 %	77.5-125		5090532	JH	05-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
DRO >C10-C28*	97.6		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
EXT DRO >C28-C36	93.3		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	

Surrogate: 1-Chlorooctane			75.8 %	44.4-145		5090512	MS	05-Sep-25	8015B	
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Surrogate: 1-Chlorooctadecane			75.6 %	40.6-153		5090512	MS	05-Sep-25	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 03-Dec-25 17:59
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**FS 19 2'**  
**H255534-07 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	5090527	KH	05-Sep-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090532	JH	05-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090532	JH	05-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090532	JH	05-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090532	JH	05-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090532	JH	05-Sep-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			113 %	77.5-125		5090532	JH	05-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	5090512	MS	05-Sep-25	8015B	

Surrogate: 1-Chlorooctane			88.7 %	44.4-145		5090512	MS	05-Sep-25	8015B	
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Surrogate: 1-Chlorooctadecane			86.3 %	40.6-153		5090512	MS	05-Sep-25	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 03-Dec-25 17:59
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**FS 08 6'**  
**H255534-08 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories**

**Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	5090548	AC	05-Sep-25	4500-CI-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	5090532	JH	05-Sep-25	8021B	
Toluene*	<0.050		0.050	mg/kg	50	5090532	JH	05-Sep-25	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	5090532	JH	05-Sep-25	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	5090532	JH	05-Sep-25	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	5090532	JH	05-Sep-25	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			116 %	77.5-125		5090532	JH	05-Sep-25	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	5090538	MS	08-Sep-25	8015B	
<b>DRO &gt;C10-C28*</b>	<b>189</b>		10.0	mg/kg	1	5090538	MS	08-Sep-25	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>32.9</b>		10.0	mg/kg	1	5090538	MS	08-Sep-25	8015B	

Surrogate: 1-Chlorooctane			107 %	44.4-145		5090538	MS	08-Sep-25	8015B	
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Surrogate: 1-Chlorooctadecane			104 %	40.6-153		5090538	MS	08-Sep-25	8015B	
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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 03-Dec-25 17:59
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**Inorganic Compounds - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5090527 - 1:4 DI Water**

<b>Blank (5090527-BLK1)</b>				Prepared & Analyzed: 05-Sep-25						
Chloride	ND	16.0	mg/kg							
<b>LCS (5090527-BS1)</b>				Prepared & Analyzed: 05-Sep-25						
Chloride	448	16.0	mg/kg	400		112	80-120			
<b>LCS Dup (5090527-BSD1)</b>				Prepared & Analyzed: 05-Sep-25						
Chloride	432	16.0	mg/kg	400		108	80-120	3.64	20	

**Batch 5090548 - 1:4 DI Water**

<b>Blank (5090548-BLK1)</b>				Prepared & Analyzed: 05-Sep-25						
Chloride	ND	16.0	mg/kg							
<b>LCS (5090548-BS1)</b>				Prepared & Analyzed: 05-Sep-25						
Chloride	432	16.0	mg/kg	400		108	80-120			
<b>LCS Dup (5090548-BSD1)</b>				Prepared & Analyzed: 05-Sep-25						
Chloride	432	16.0	mg/kg	400		108	80-120	0.00	20	

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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 03-Dec-25 17:59
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**Volatile Organic Compounds by EPA Method 8021 - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5090517 - Volatiles**

**Blank (5090517-BLK1)**

Prepared & Analyzed: 05-Sep-25

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0580		mg/kg	0.0500		116	71.5-134			

**LCS (5090517-BS1)**

Prepared & Analyzed: 05-Sep-25

Benzene	1.91	0.050	mg/kg	2.00		95.7	76.3-129			
Toluene	2.08	0.050	mg/kg	2.00		104	84.1-129			
Ethylbenzene	2.21	0.050	mg/kg	2.00		110	80.1-133			
m,p-Xylene	4.59	0.100	mg/kg	4.00		115	81.4-134			
o-Xylene	2.34	0.050	mg/kg	2.00		117	81.4-133			
Total Xylenes	6.93	0.150	mg/kg	6.00		115	81.5-134			
Surrogate: 4-Bromofluorobenzene (PID)	0.0556		mg/kg	0.0500		111	71.5-134			

**LCS Dup (5090517-BSD1)**

Prepared & Analyzed: 05-Sep-25

Benzene	1.97	0.050	mg/kg	2.00		98.6	76.3-129	3.04	15.8	
Toluene	2.20	0.050	mg/kg	2.00		110	84.1-129	5.19	15.9	
Ethylbenzene	2.30	0.050	mg/kg	2.00		115	80.1-133	3.92	16	
m,p-Xylene	4.80	0.100	mg/kg	4.00		120	81.4-134	4.57	16.2	
o-Xylene	2.45	0.050	mg/kg	2.00		122	81.4-133	4.35	16.7	
Total Xylenes	7.25	0.150	mg/kg	6.00		121	81.5-134	4.49	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0573		mg/kg	0.0500		115	71.5-134			

**Batch 5090532 - Volatiles**

**Blank (5090532-BLK1)**

Prepared & Analyzed: 05-Sep-25

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							

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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  
3122 NATIONAL PARKS HWY  
CARLSBAD NM, 88220

Project: STATE DA CTB  
Project Number: 07A1988176  
Project Manager: KALEI JENNINGS  
Fax To:

Reported:  
03-Dec-25 17:59

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 5090532 - Volatiles****Blank (5090532-BLK1)**

Prepared &amp; Analyzed: 05-Sep-25

Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0571		mg/kg	0.0500		114	77.5-125			

**LCS (5090532-BS1)**

Prepared &amp; Analyzed: 05-Sep-25

Benzene	1.69	0.050	mg/kg	2.00		84.4	80.8-112			
Toluene	1.78	0.050	mg/kg	2.00		89.1	78.7-114			
Ethylbenzene	1.84	0.050	mg/kg	2.00		91.9	70.9-120			
m,p-Xylene	3.82	0.100	mg/kg	4.00		95.5	76.9-119			
o-Xylene	1.85	0.050	mg/kg	2.00		92.3	71.7-120			
Total Xylenes	5.67	0.150	mg/kg	6.00		94.5	75.6-119			
Surrogate: 4-Bromofluorobenzene (PID)	0.0499		mg/kg	0.0500		99.7	77.5-125			

**LCS Dup (5090532-BSD1)**

Prepared &amp; Analyzed: 05-Sep-25

Benzene	1.80	0.050	mg/kg	2.00		89.8	80.8-112	6.12	8.26	
Toluene	1.85	0.050	mg/kg	2.00		92.7	78.7-114	3.97	9.03	
Ethylbenzene	1.89	0.050	mg/kg	2.00		94.5	70.9-120	2.87	11.9	
m,p-Xylene	3.91	0.100	mg/kg	4.00		97.8	76.9-119	2.37	11	
o-Xylene	1.89	0.050	mg/kg	2.00		94.7	71.7-120	2.57	15	
Total Xylenes	5.81	0.150	mg/kg	6.00		96.8	75.6-119	2.44	12.2	
Surrogate: 4-Bromofluorobenzene (PID)	0.0494		mg/kg	0.0500		98.7	77.5-125			

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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 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 03-Dec-25 17:59
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**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 5090512 - General Prep - Organics**

<b>Blank (5090512-BLK1)</b>		Prepared & Analyzed: 05-Sep-25								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	50.5		mg/kg	50.0		101	44.4-145			
Surrogate: 1-Chlorooctadecane	48.7		mg/kg	50.0		97.3	40.6-153			

<b>LCS (5090512-BS1)</b>		Prepared & Analyzed: 05-Sep-25								
GRO C6-C10	202	10.0	mg/kg	200		101	81.5-123			
DRO >C10-C28	215	10.0	mg/kg	200		108	77.7-122			
Total TPH C6-C28	417	10.0	mg/kg	400		104	80.9-121			
Surrogate: 1-Chlorooctane	54.8		mg/kg	50.0		110	44.4-145			
Surrogate: 1-Chlorooctadecane	54.1		mg/kg	50.0		108	40.6-153			

<b>LCS Dup (5090512-BSD1)</b>		Prepared & Analyzed: 05-Sep-25								
GRO C6-C10	193	10.0	mg/kg	200		96.7	81.5-123	4.17	13	
DRO >C10-C28	202	10.0	mg/kg	200		101	77.7-122	6.58	15.6	
Total TPH C6-C28	395	10.0	mg/kg	400		98.8	80.9-121	5.41	18.5	
Surrogate: 1-Chlorooctane	56.5		mg/kg	50.0		113	44.4-145			
Surrogate: 1-Chlorooctadecane	51.3		mg/kg	50.0		103	40.6-153			

**Batch 5090538 - General Prep - Organics**

<b>Blank (5090538-BLK1)</b>		Prepared: 05-Sep-25 Analyzed: 08-Sep-25								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	41.9		mg/kg	50.0		83.9	44.4-145			
Surrogate: 1-Chlorooctadecane	30.9		mg/kg	50.0		61.8	40.6-153			

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**Analytical Results For:**

ENSOLUM 3122 NATIONAL PARKS HWY CARLSBAD NM, 88220	Project: STATE DA CTB Project Number: 07A1988176 Project Manager: KALEI JENNINGS Fax To:	Reported: 03-Dec-25 17:59
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**Petroleum Hydrocarbons by GC FID - Quality Control**

**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 5090538 - General Prep - Organics**

<b>LCS (5090538-BS1)</b>		Prepared: 05-Sep-25 Analyzed: 08-Sep-25								
GRO C6-C10	192	10.0	mg/kg	200		96.0	81.5-123			
DRO >C10-C28	205	10.0	mg/kg	200		103	77.7-122			
Total TPH C6-C28	397	10.0	mg/kg	400		99.3	80.9-121			
Surrogate: 1-Chlorooctane	45.2		mg/kg	50.0		90.3	44.4-145			
Surrogate: 1-Chlorooctadecane	34.2		mg/kg	50.0		68.3	40.6-153			
<b>LCS Dup (5090538-BSD1)</b>		Prepared: 05-Sep-25 Analyzed: 08-Sep-25								
GRO C6-C10	193	10.0	mg/kg	200		96.4	81.5-123	0.460	13	
DRO >C10-C28	203	10.0	mg/kg	200		101	77.7-122	1.33	15.6	
Total TPH C6-C28	395	10.0	mg/kg	400		98.9	80.9-121	0.460	18.5	
Surrogate: 1-Chlorooctane	45.5		mg/kg	50.0		91.1	44.4-145			
Surrogate: 1-Chlorooctadecane	36.0		mg/kg	50.0		71.9	40.6-153			

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Notes and Definitions

- GC-NC1 8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC.  
 Project Manager: Kalei Jennings  
 Address: 3122 National Parks Hwy  
 City: Carlsbad State: NM Zip 88220  
 Phone #: 817-683-2503 Fax #:  
 Project #: 07A1988176 Project Owner: Hillcorp  
 Project Name: State D A CTB  
 Project Location: 32.476572, -103.1723811  
 Sampler Name: Alex Ferrell  
 P.O. #: 07A1988176  
 Company: Ensolum, LLC.  
 Attn: Kalei Jennings  
 Address: 3122 National Parks Hwy  
 City: Carlsbad  
 State: NM Zip: 88220  
 Phone #:  
 Fax #:

Lab I.D.	Sample I.D.	Sample Depth	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	Chloride	TPH	BTEX
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
1155534																
FS13		2'	C	1	X							9/4/2025	1100	X	X	X
FS14		2'	C	1	X							9/4/2025	1103	X	X	X
FS15		2'	C	1	X							9/4/2025	1105	X	X	X
FS16		2'	C	1	X							9/4/2025	1654	X	X	X
FS17		2'	C	1	X							9/4/2025	1107	X	X	X
FS18		2'-7'	C	1	X							9/4/2025	1109	X	X	X
FS19		2'	C	1	X							9/4/2025	1111	X	X	X
FS08		624'	C	1	X							9/4/2025	1430	X	X	X

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Relinquished By: *[Signature]* Received By: *[Signature]*  
 Date: 9/15/25 Date: 9/15/25  
 Time: 6:40 Time: 5:35  
 Delivered By: *[Signature]* Received By: *[Signature]*  
 Date: 9/15/25 Date: 9/15/25  
 Time: 6:40 Time: 5:35

Sampler - UPS - Bus - Other:     
 FORM-006 R 3.6 02/12/25  
 Observed Temp. °C: 14.5  
 Corrected Temp. °C: 17.2  
 Sample Condition:  Intact  Cool  Yes  No  
 CHECKED BY: *[Signature]*  
 Turnaround Time: Standard  Rush   
 Thermometer ID #140 Correction Factor +0.3°C  
 Bacteria (only) Sample Condition:  Intact  Cool  Yes  No

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



Attachment I

May 21, 2025, *Remediation Work Plan*

---



May 21, 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 Work Plan**

State D A CTB  
Hilcorp Energy Company  
NMOCD Incident No: napp2505326850

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Hilcorp Energy Company (Hilcorp), presents this *Remediation Work Plan* (Work Plan) for a release at the State D A Central Tank Battery (CTB) (Site). The Site is located on New Mexico State Trust Land (STL), managed by the New Mexico State Land Office (NMSLO), in Unit L, Section 16, Township 21 South, Range 37 East, Lea County, New Mexico, (Figure 1). This Work Plan includes a summary of delineation activities performed at the Site and the proposed remediation of impacted soil originating from the release.

## **SITE BACKGROUND**

On February 21, 2025, Hilcorp personnel discovered a release of 165 barrels (bbls) of oil at the Site. Specifically, while conducting a routine Site inspection, Hilcorp personnel observed a visibly impacted area measuring approximately 50 feet by 64 feet inside the secondary containment berm of the tank battery. The release volume was based on the operator's tank-gauging data. Of the released fluids, approximately 160 barrels were recovered via vacuum truck. Additionally, the spilled fluids did not migrate horizontally outside of secondary containment. Hilcorp submitted the *Notification of Release* to the New Mexico Oil Conservation Division (NMOCD) on February 22, 2025, and the Site was assigned the NMOCD Incident Number napp2505326850.

## **SITE CHARACTERIZATION**

As part of the Site investigation, local geology/hydrogeology and nearby sensitive receptors were assessed in accordance with Title 19, Chapter 15, Part 29, Sections 11 and 12 (19.15.29.11 and 12) of the New Mexico Administrative Code (NMAC). This information is further discussed below.

## **POTENTIAL SENSITIVE RECEPTORS**

Potential nearby receptors were assessed through desktop reviews of United States Geological Survey (USGS) topographic maps, Federal Emergency Management Administration (FEMA) Geographic Information System (GIS) maps, New Mexico Office of the State Engineer (NMOSE) database, aerial photographs, and Site-specific observations.

The nearest significant watercourse to the Site is a dry wash located approximately 3,345 feet north of the well pad. The nearest fresh water well is USGS permitted well 322814103102601 located approximately 2,215 feet northeast of the Site with a recorded depth to water of 73.07 feet below ground surface (bgs). The closest NMOSE permitted well, CP-00554, is located approximately 4,349 feet southwest of the Site with a recorded depth to water of 70 feet bgs. Lastly, NMOCD remediation site 1R-426-12, located approximately 2,800 feet southwest of the Site, advanced several borings in 2006 to depths up to 60 feet bgs without encountering groundwater. In accordance with 19.15.29.11.A(2) NMAC, the “responsible party must provide a reasonable determination of probable ground water depth using data generated by numeric models, cathodic well lithology, water well data, published information or other tools”. Based on the information provided above, the three closest data points to the Site, including one collected within 25 years, are between 2,215 and 4,349 feet from the Site and indicate that groundwater is at least greater than 60 feet below ground surface. Based on these multiple lines of evidence, depth-to-groundwater is reasonably determined to be greater than 50 feet bgs. Documentation supporting this determination are attached as Appendix A.

The Site is greater than 200 feet from any lakebed, sinkhole, or playa lake, and within 300 feet from any wetland (Figure 1). No wellhead protection areas, springs, or domestic/stock wells are located within a ½-mile from the Site (Figure 1). The Site is not within a 100-year floodplain, overlying a subsurface mine, or located within an area underlain by unstable geology. Additionally, the area is designated as low potential karst by the Bureau of Land Management (BLM). Schools, hospitals, institutions, churches, and/or other occupied permanent residence or structures are not located within 300 feet of the Site. A Site receptor map is shown on Figure 1.

## SITE CLOSURE CRITERIA

Based on the information presented above and in accordance with the *Table I, Closure Criteria for Soils Impacted by a Release* (19.15.29.12 NMAC), the following Closure Criteria for constituents of concern (COCs) should be applied to the Site:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH) as a combination of gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO):  
2,500 mg/kg
- TPH as a combination of GRO and DRO: 1,000 mg/kg
- Chloride: 10,000 mg/kg

## DELINEATION AND SOIL SAMPLING ACTIVITIES

Upon discovery of the release, Hilcorp retained Ensolum to conduct initial soil sampling activities on March 5, 2025. In total, two surface soil samples were collected from 0.5 feet bgs at locations SS01 and SS02 shown on Figure 2. Additionally, a hand auger was used to advance SS02 to a depth of 9 feet bgs. During delineation activities, Ensolum personnel logged soil lithology and field screened for the presence of volatile organic compounds (VOCs) using a calibrated photoionization detector (PID). Soil descriptions and field screening results were noted in the field book. Soil samples were collected directly into laboratory-provided jars and immediately placed on ice. Samples were submitted to Eurofins Environment Testing (Eurofins) for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B, TPH following Method 8015, and chloride following EPA Method 300.0. Sample results indicated impacted soil above NMOCD Table I Closure Criteria was present within the release area near the ground

surface. Soil from sample SS02A, collected at a depth of 9 feet bgs, was compliant with the Table I Closure Criteria.

Based on the initial sampling results, Ensolum conducted additional delineation activities on May 7, 2025. A notification of sampling activities was provided to the NMOCD prior to the delineation work and is attached as Appendix B. Due to a high-pressure gas line containing elevated concentrations of hydrogen sulfide and at the request of the gas utility operator, Ensolum could not advance hand auger borings within 25 feet of the pipeline without hydro-excavating to spot the line. As such, three borings, BH01 through BH03, were collected south, east, and west of the stained surface soil to laterally delineate the release (Figure 2). Samples were field screened and logged in the same manner described above. Two soil samples were collected from each pothole in order to delineate the vertical impacts at the Site and submitted to Eurofins to BTEX, TPH, and chloride. Based on the laboratory analytical results, all COCs were either not detected above laboratory reporting limits or were not detected above the applicable Closure Criteria in any other analyzed samples.

A summary of analytical results is summarized in Table 1 and Figure 2, with complete laboratory reports attached in Appendix C. Photographs taken during delineation activities are also provided in Appendix D. PID field screening results are included in Table 1.

## REMEDIATION WORK PLAN

Based on the soil sampling results described above, it is estimated impacted soil is present at the Site between the ground surface to a depth of approximately 7 feet bgs. Analytical results also indicate impacted soil is likely limited to areas within the secondary containment berm with an approximate areal extent of 4,900 square feet or less. Based on these estimates, approximately 1,270 cubic yards of impacted soil are present at the Site. Of note, although a delineation boring could not be advanced on the northern edge of the release, it is assumed that the release stayed within the secondary containment on this portion of the Site based on other delineation data.

Hilcorp proposes to excavate impacted soil at the Site to achieve NMOCD Closure Criteria. Soil will be excavated and transported off-Site for treatment/disposal at an NMOCD approved commercial landfarm. Once field screening indicates impacted soil has been removed, 5-point composite soil samples will be collected at least every 200 square feet from the floor and sidewalls of the excavation. The 5-point composite samples will be collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Based on previous analytical results and no prior Closure Criteria exceedances of chloride, Hilcorp is requesting soil samples only be analyzed for TPH and BTEX during confirmation sampling. Once confirmed impacted soil has been removed, the excavation will be backfilled with clean imported soil and recontoured to match pre-existing conditions at the Site.

## CULTURAL RESOURCE SURVEY

Since the release remained on pad, an assessment of cultural properties had already been completed prior to the construction of the well pad and as such, the Cultural Properties Protection Rule (CPP) has been followed. No additional cultural resource surveys were completed in connection with this release.

## RECLAMATION PLAN

The release remained on the well pad that is currently in operation for oil and gas production purposes. As such, the release area is not expected to be reclaimed until the oil and gas well is plugged and abandoned (P&A'd) and the well pad is reclaimed. The Reclamation Plan for this release will default to the NMSLO-approved Reclamation Plan for the well pad per 19.2.100.67 NMAC.

**SCHEDULE**

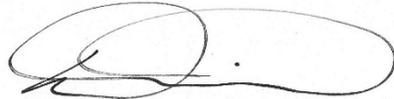
Hilcorp will complete the excavation and soil sampling activities within 90 days of the date of approval of this Work Plan by the NMSLO AND NMOCD. A *Closure Request* will be submitted within 60 days of receipt of final laboratory analytical results.

We appreciate the opportunity to provide this work plan to the NMSLO and NMOCD. If you should have any questions or comments regarding this document, please contact the undersigned.

Sincerely,  
**Ensolum, LLC**



Stuart Hyde, PG (licensed in WA & TX)  
Senior Managing Geologist  
(970) 903-1607  
shyde@ensolum.com



Daniel R. Moir, PG (licensed in WY & TX)  
Senior Managing Geologist  
(303) 887-2946  
dmoir@ensolum.com

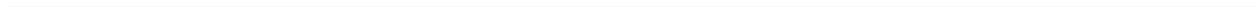
**Cc: NMSLO**

**Attachments:**

- Figure 1: Site Receptor Map
- Figure 2: Soil Sample Location Map
  
- Table 1: Soil Sample Analytical Results
  
- Appendix A: Depth to Water Determination
- Appendix B: Agency Correspondence
- Appendix C: Laboratory Analytical Reports
- Appendix D: Photographic Log

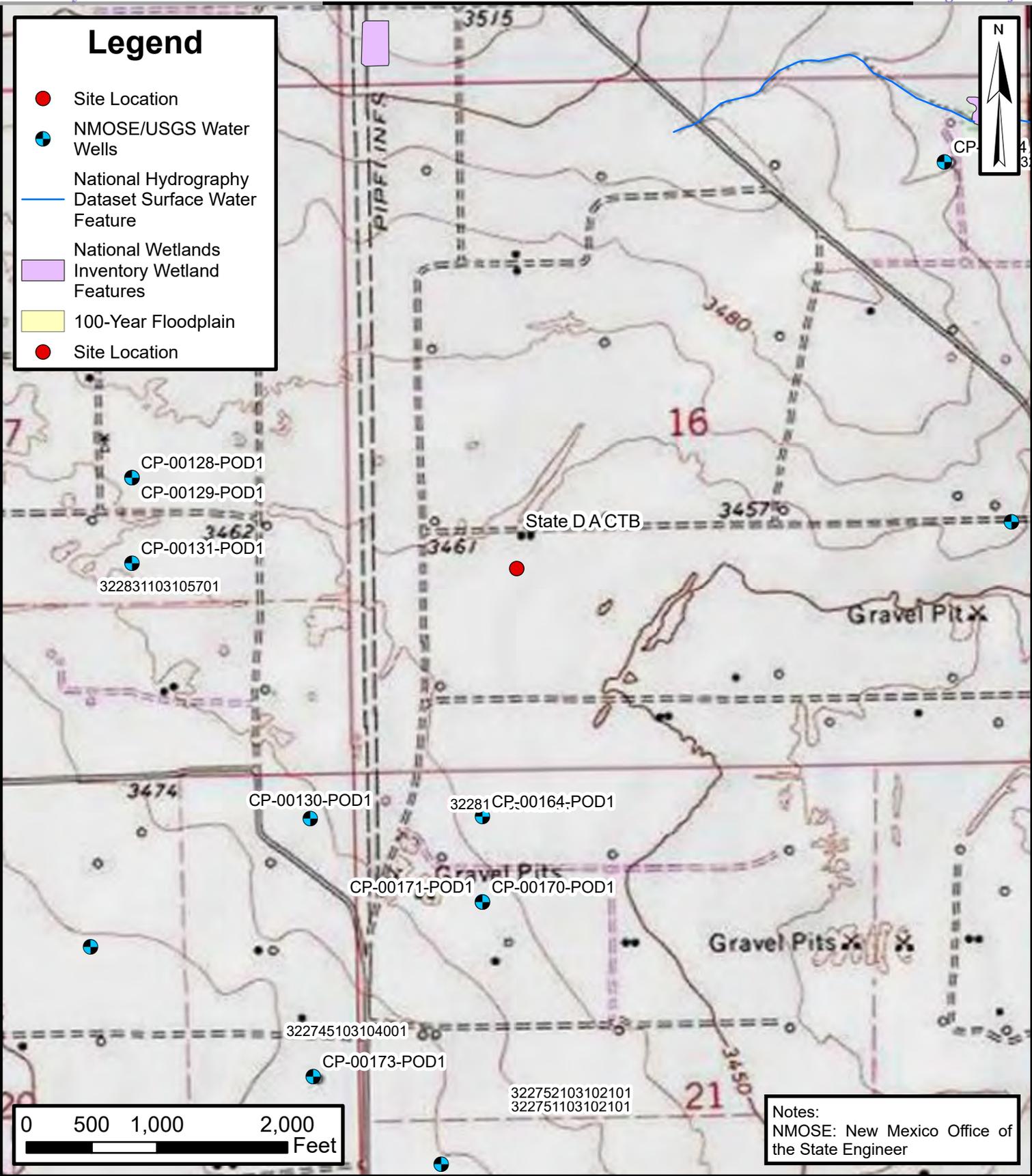


## FIGURES



### Legend

- Site Location
- NMOSE/USGS Water Wells
- National Hydrography Dataset Surface Water Feature
- National Wetlands Inventory Wetland Features
- 100-Year Floodplain
- Site Location



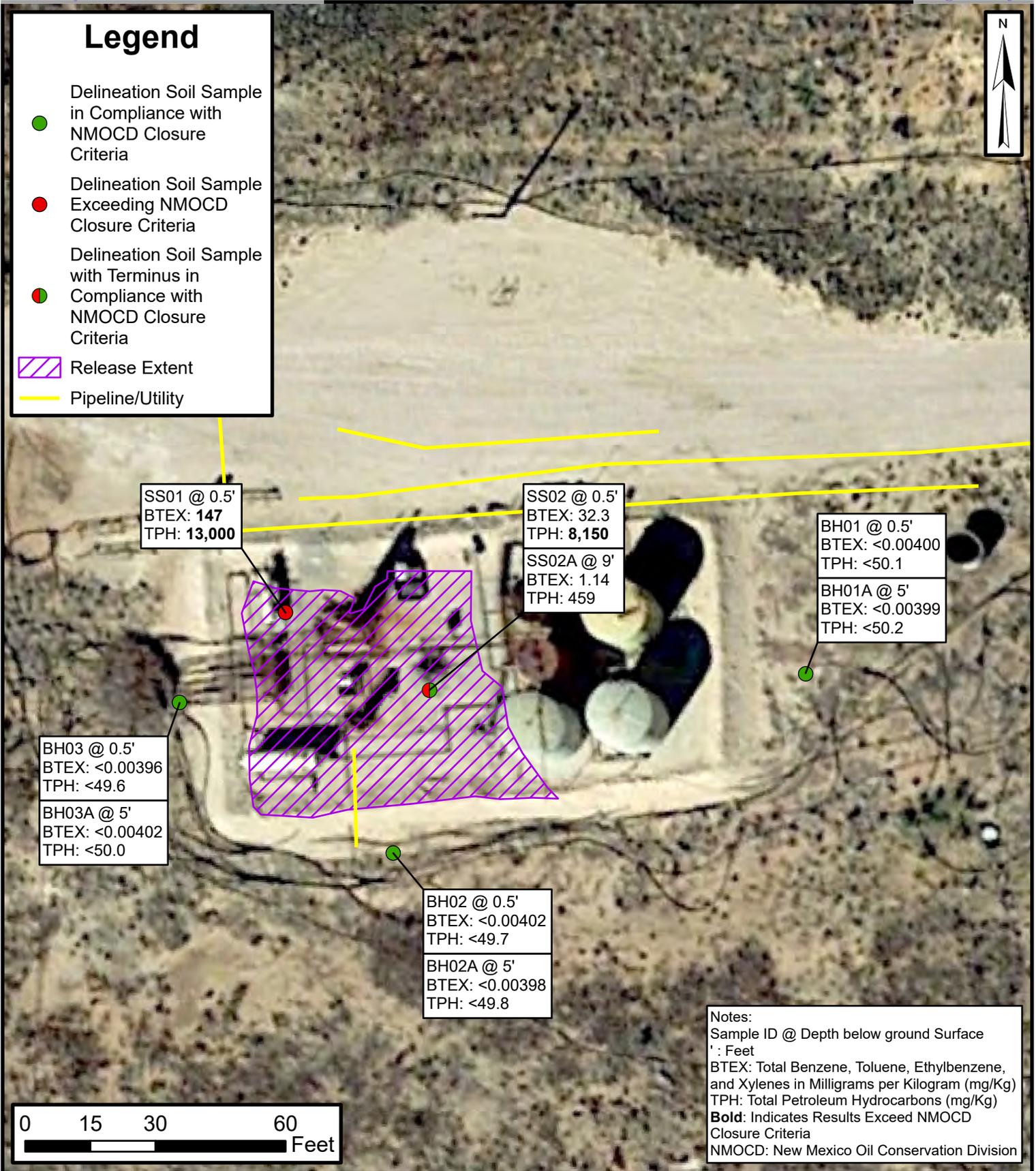
Notes:  
 NMOSE: New Mexico Office of the State Engineer



## Site Receptor Map

State D A CTB  
 Hilcorp Energy Company  
 32.4765720, -103.1723811  
 Lea County, New Mexico

**FIGURE**  
**1**



Default Folder: C:\Users\Greg Palese\OneDrive - ENSOLUM, LLC\Desktop\Enso\GIS1 - Durango\Hilcorp00 Permian Basin\State D A CTB



**Soil Sample Location Map**  
 State D A CTB  
 Hilcorp Energy Company  
 32.4765720, -103.1723811  
 Lea County, New Mexico

**FIGURE**  
**2**



TABLES

<b>TABLE 1</b> <b>SOIL SAMPLE ANALYTICAL RESULTS</b> State D A CTB Hilcorp Energy Company Lea County, New Mexico														
Sample Identification	Date	Depth (feet bgs)	PID (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCD Closure Criteria for Soils Impacted by a Release</b>			NE	10	NE	NE	NE	50	NE	NE	NE	1,000	2,500	10,000
SS01	3/5/2025	0.5	>5,000	2.16	31.8	37.8	75.3	147	4,820	8,140	<999	13,000	13,000	12.1
SS02	3/5/2025	0.5	>5,000	<0.497	7.45	8.90	16.0	32.3	1,780	6,370	<996	8,150	8,150	10.4
SS02A	3/5/2025	9.0	326	<0.0992	0.106	0.187	0.846	1.14	<50.5	459	<50.5	459	459	21.2
BH01	5/7/2025	0.5	0.7	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	<50.1	<50.1	<50.1	<50.1	<50.1	99.0
BH01A	5/7/2025	5.0	0.2	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.2	<50.2	<50.2	<50.2	<50.2	174
BH02	5/7/2025	0.5	1.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<49.7	<49.7	<49.7	<49.7	<49.7	83.4
BH02A	5/7/2025	5.0	3.1	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	101
BH03	5/7/2025	0.5	2.3	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	<49.6	<49.6	<49.6	<49.6	<49.6	98.6
BH03A	5/7/2025	6.0	4.4	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	104

**Notes:**

bgs: Below ground surface  
 BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes  
 mg/kg: Milligrams per kilogram  
 NE: Not Established  
 NMOCD: New Mexico Oil Conservation Division  
 PID: Photoionization detector  
 ppm: Parts per million

GRO: Gasoline Range Organics  
 DRO: Diesel Range Organics  
 MRO: Motor Oil/Lube Oil Range Organics  
 TPH: Total Petroleum Hydrocarbon  
 ': Feet

< : Indicates result less than the stated laboratory reporting limit (RL)

Concentrations in **bold** and shaded exceed the New Mexico Oil Conservation Division Table I Closure Criteria for Soils Impacted by a Release



## APPENDIX A

# Depth to Water Determination

---

Revised June 1972

STATE ENGINEER OFFICE

WELL RECORD

474066

SANTA FE

Section 1. GENERAL INFORMATION

78 MAR 15 AM 11 59

(A) Owner of well Millard Deck Owner's Well No. Street or Post Office Address P. O. Box 409 City and State Eunice, New Mex. 88231

Well was drilled under Permit No. CP-554 and is located in the N.M. 87501

a. NE 1/4 NE 1/4 1/4 of Section 16 Township 21-S Range 37-E N.M.P.M. b. Tract No. of Map No. of the c. Lot No. of Block No. of the Subdivision, recorded in Lea County. d. X= feet, Y= feet, N.M. Coordinate System Zone in the Grant.

(B) Drilling Contractor W. L. Van Noy License No. WD-208

Address P. O. Box 7 Oil Center, N. M. 88266

Drilling Began June 1, 1976 completed June 5, 1976 tools spudder Size of hole 8" in.

Elevation of land surface or at well is ft. Total depth of well 80 ft.

Completed well is shallow artesian. Depth to water upon completion of well 70 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Table with 4 columns: Depth in Feet (From, To), Thickness in Feet, Description of Water-Bearing Formation, Estimated Yield (gallons per minute). Row 1: 75-80, 5, fine water sand.

Section 3. RECORD OF CASING

Table with 8 columns: Diameter (inches), Pounds per foot, Threads per in., Depth in Feet (Top, Bottom), Length (feet), Type of Shoe, Perforations (From, To). Row 1: 5", welded, 0, 80, 80, none, 64, 80.

Section 4. RECORD OF MUDDING AND CEMENTING

Table with 5 columns: Depth in Feet (From, To), Hole Diameter, Sacks of Mud, Cubic Feet of Cement, Method of Placement.

Section 5. PLUGGING RECORD

Plugging Contractor Address Plugging Method Date Well Plugged Plugging approved by: State Engineer Representative

Table with 4 columns: No., Depth in Feet (Top, Bottom), Cubic Feet of Cement. Rows 1-4.

FOR USE OF STATE ENGINEER ONLY

Date Received 4/5/77 Quad FWL FSL

File No. CP-554 Use STX Location No. 21.37.16.222321





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## National Water Information System: Web Interface

USGS Water Resources

Data Category:    
 Geographic Area:

Click to hide News Bulletins

- Explore the *NEW* [USGS National Water Dashboard](#) interactive map to access real-time water data from over 13,500 stations nationwide.

# USGS 322814103102601 21S.37E.21.11121

Available data for this site

## Well Site

### DESCRIPTION:

Latitude 32°28'14", Longitude 103°10'26" NAD27  
 Lea County, New Mexico , Hydrologic Unit 13070007  
 Well depth: not determined.  
 Land surface altitude: 3,462 feet above NAVD88.  
 Well completed in "Pecos River Basin alluvial aquifer" (N100PCSRVR) national aquifer.  
 Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

### AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
<a href="#">Field groundwater-level measurements</a>	1954-01-10	1954-01-10	1
<a href="#">Revisions</a>	Unavailable (site:0) (timeseries:0)		

### OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center  
 Email questions about this site to [New Mexico Water Science Center Water-Data Inquiries](#)

- 
- [Questions or Comments](#)
  - [Help](#)
  - [Data Tips](#)
  - [Explanation of terms](#)
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**Title: NWIS Site Information for USA: Site Inventory**

**URL: [https://waterdata.usgs.gov/nwis/inventory?](https://waterdata.usgs.gov/nwis/inventory?site_no=322814103102601&agency_cd=USGS)**

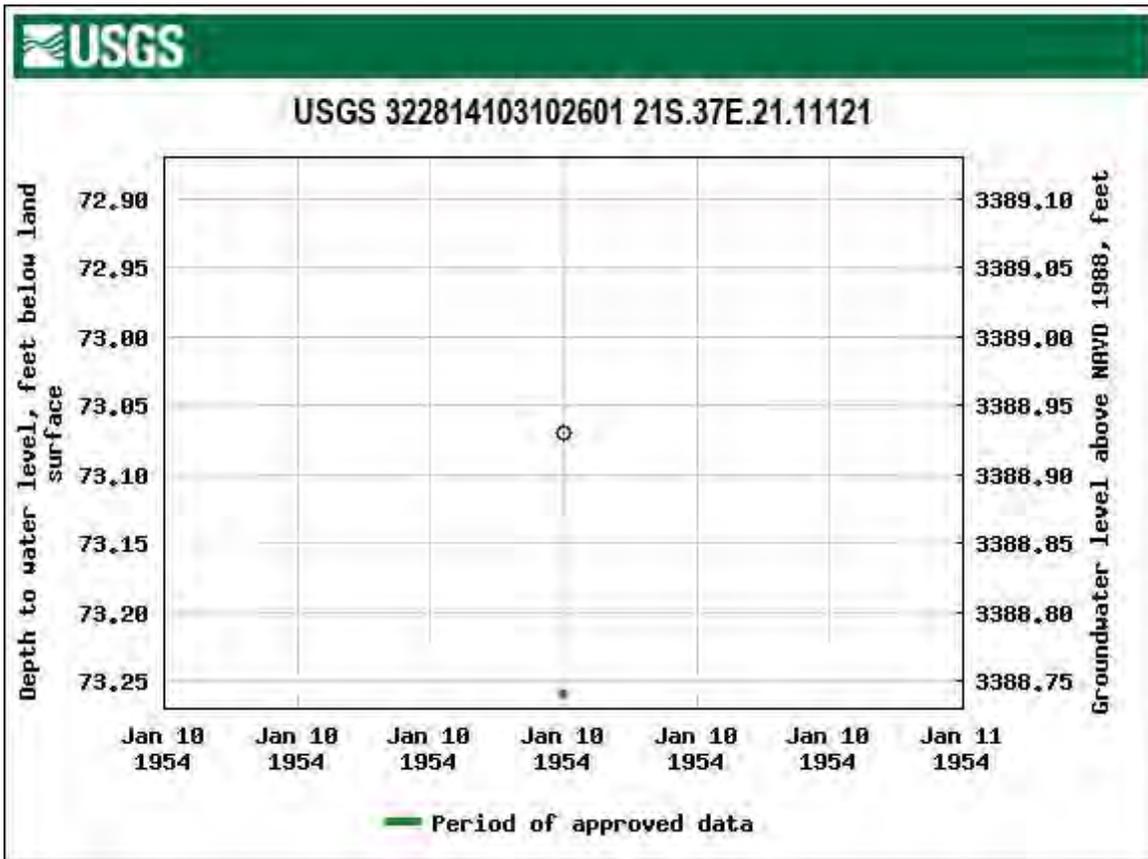
**site\_no=322814103102601&agency\_cd=USGS**



Page Contact Information: [New Mexico Water Data Support Team](#)

Page Last Modified: 2025-02-25 14:01:58 EST

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**1R - 426-12**

**WORK PLANS**

**DATE:**

**5-9-07**



# Highlander Environmental Corp.

Midland, Texas

IR426-12  
Work Plan

2007 MAY 14 AM 10 21 5-9-07

CERTIFIED MAIL  
RETURN RECEIPT NO. 7004 2510 0001 1869 0927

May 9, 2007

Mr. Wayne Price  
New Mexico Energy, Minerals, & Natural Resources  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87504

RE: **CORRECTIVE ACTION PLAN (CAP)  
O-17-1 VENT, BD SWD SYSTEM  
UNIT "O", SEC. 17, T21S, R37E  
Lea County, New Mexico**

Mr. Johnson:

RICE Operating Company (ROC) has retained Highlander Environmental Corp. (Highlander) to address potential environmental concerns at the above-referenced site. ROC is the service provider (agent) for the 0-17-1 Vent, BD SWD System (System) and has no ownership of any portion of the pipeline, well, or facility. The System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis. Environmental projects of this magnitude require System Partner AFE approval and work begins as funds are received. In general, project funding is not forthcoming until NMOCD approves the work plan. Therefore, your timely review of this submission is requested.

For all environmental projects, ROC will choose a path forward that:

- protects public health,
- provides the greatest net environmental benefit,
- complies with NMOCD Rules, and
- is supported by good science.

Each site shall have three submissions or a combination of:

1. An **Investigation and Characterization Plan** (ICP) is a proposal for data gathering and site characterization and assessment.
2. Upon evaluating the data and results from the ICP, a recommended remedy is submitted in this **Corrective Action Plan** (CAP).

3. Finally, after implementing the remedy, a **Closure Report** with final documentation will be submitted.

## 1.0 BACKGROUND & PREVIOUS WORK

As part of the ROC Junction Box Upgrade Workplan, starting on March 7, 2003, the junction box was removed and the Site was investigated vertically and horizontally with a backhoe. See site location as shown on Figure 1. The Site was excavated to the approximate dimensions of 27' x 18' x 12'. TPH impact was noted to a depth of at least 12' below ground surface (bgs). Chloride impact was consistent vertically and horizontally, with a bottom hole chloride concentration of 1,740 mg/kg at 12' below ground surface. Regional groundwater information indicates that the depth to groundwater is approximately 70' bgs.

The junction box once contained a vent, but the junction was eliminated and the site was plumbed straight through with new poly pipeline. ROC completed the replacement of the line on August 29, 2003. On September 16, 2003, ROC submitted a Junction Box Disclosure Report to the NMOCD. A copy of the Junction Box Disclosure Report is included in Appendix A.

On August 10, 2006, ROC submitted the ICP to Mr. Wayne Price of the NMOCD-Santa Fe office for review. Mr. Price granted approval of the ICP in a letter dated September 21, 2006.

On October 9 and 10, 2006, Highlander personnel were onsite to oversee the installation of five soil borings (SB-1, SB-2, SB-3, SB-4, and SB-5) within and adjacent to the former junction box location. Soil samples were collected every 5' beginning at a depth of 13 feet bgs within the excavated area and 3 feet bgs outside the excavated area. Samples were collected utilizing a split spoon sampler, and placed into laboratory supplied containers and delivered to the laboratory under chain-of-custody control for chloride analysis by EPA method 300.0 and specific samples for TPH analysis by EPA method 8015 modified. The collected samples were field screened for TPH utilizing a photoionization detector (PID) and for chlorides with a field sampling kit. The split spoons were decontaminated between samples utilizing analconox and deionization water wash followed by a deionization water rinse. Copies of laboratory analyses and chain-of-custody documentation are included in Appendix B. The soil boring locations are shown on Figure 2. The soil boring logs are included in Appendix C. The results of the sampling are summarized in Table 1.

Referring to Table 1, the TPH concentrations were below the NMOCD guidelines in all samples collected and submitted for analysis. The chloride concentrations showed a marked decrease with depth in each of the five soil borings.

## 2.0 COLLECTED REGIONAL HYDROGEOLOGIC DATA

Since groundwater was not encountered during drilling of the site, it was not deemed necessary to perform a water well inventory within a ½ mile radius of the site.



### 3.0 EVALUATION

When evaluating any proposed remedy or investigative work, ROC will confirm that there is a reasonable relationship between the benefits created by the proposed remedy or assessment and the economic and social costs. In evaluating the documented levels of chlorides within the soil, it was determined that an unconsolidated clay barrier be placed within the impacted zone in order to prevent further vertical migration of the chlorides into the surrounding soils.

### 4.0 PROPOSED REMEDY

Groundwater is 70' bgs and the chlorides and TPH decrease with depth and do not extend beyond 35' bgs. As such, ROC proposes preparation and revegetation of the surface soils in order to provide an infiltration barrier. This may include removal of existing gravel, importation of clean topsoil and reseeding utilizing native vegetation. In addition, the site will be monitored for growth. Based on the visual inspection and subsurface drilling, the area of the former junction box to be revegetated is approximately 37' by 38'.

If you require any additional information or have any questions or comments, please call.



**Highlander Environmental Corp.**

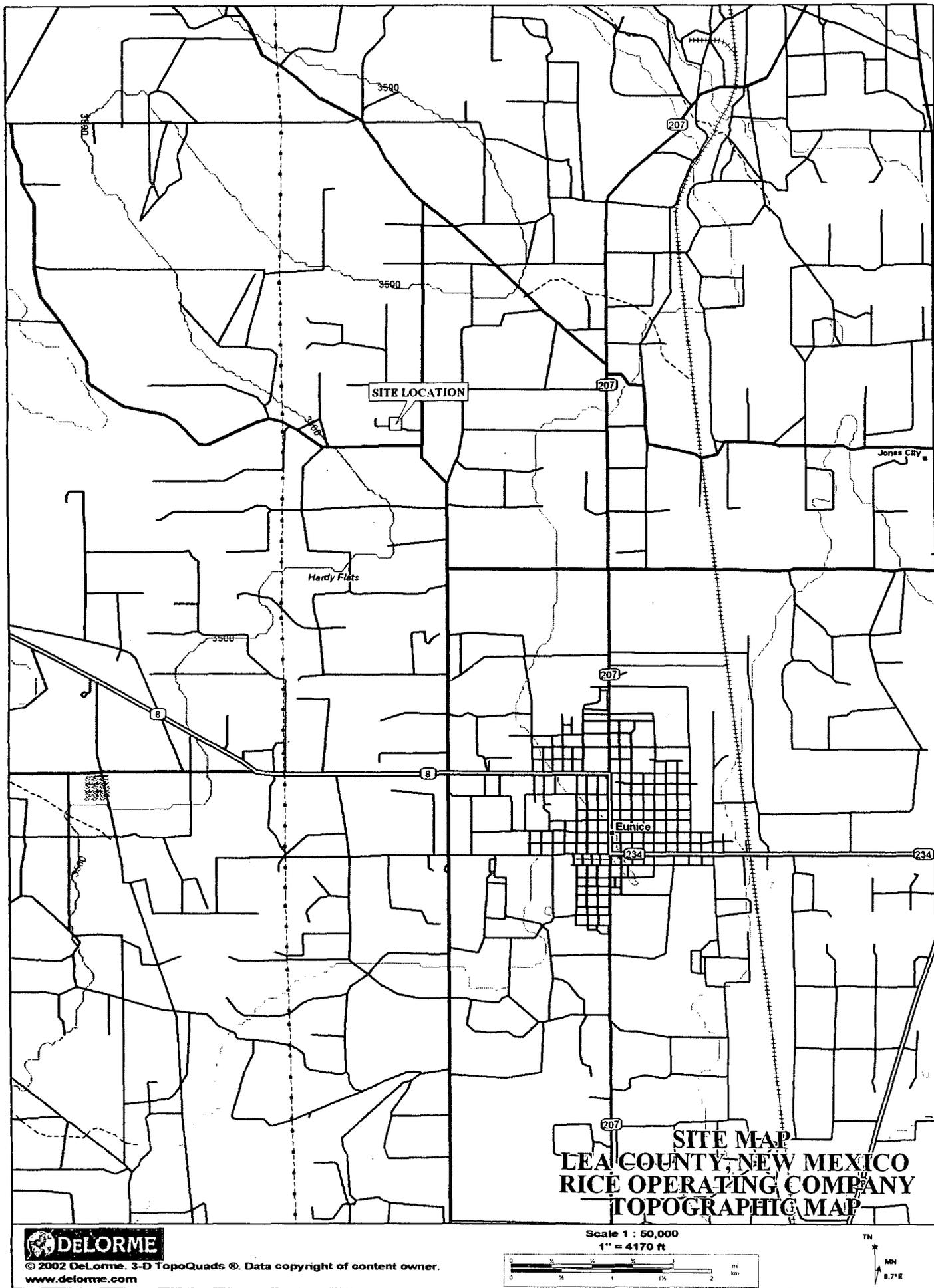
*Jeffrey Kindley*  
Jeffrey Kindley, P.G.  
Senior Environmental Geologist

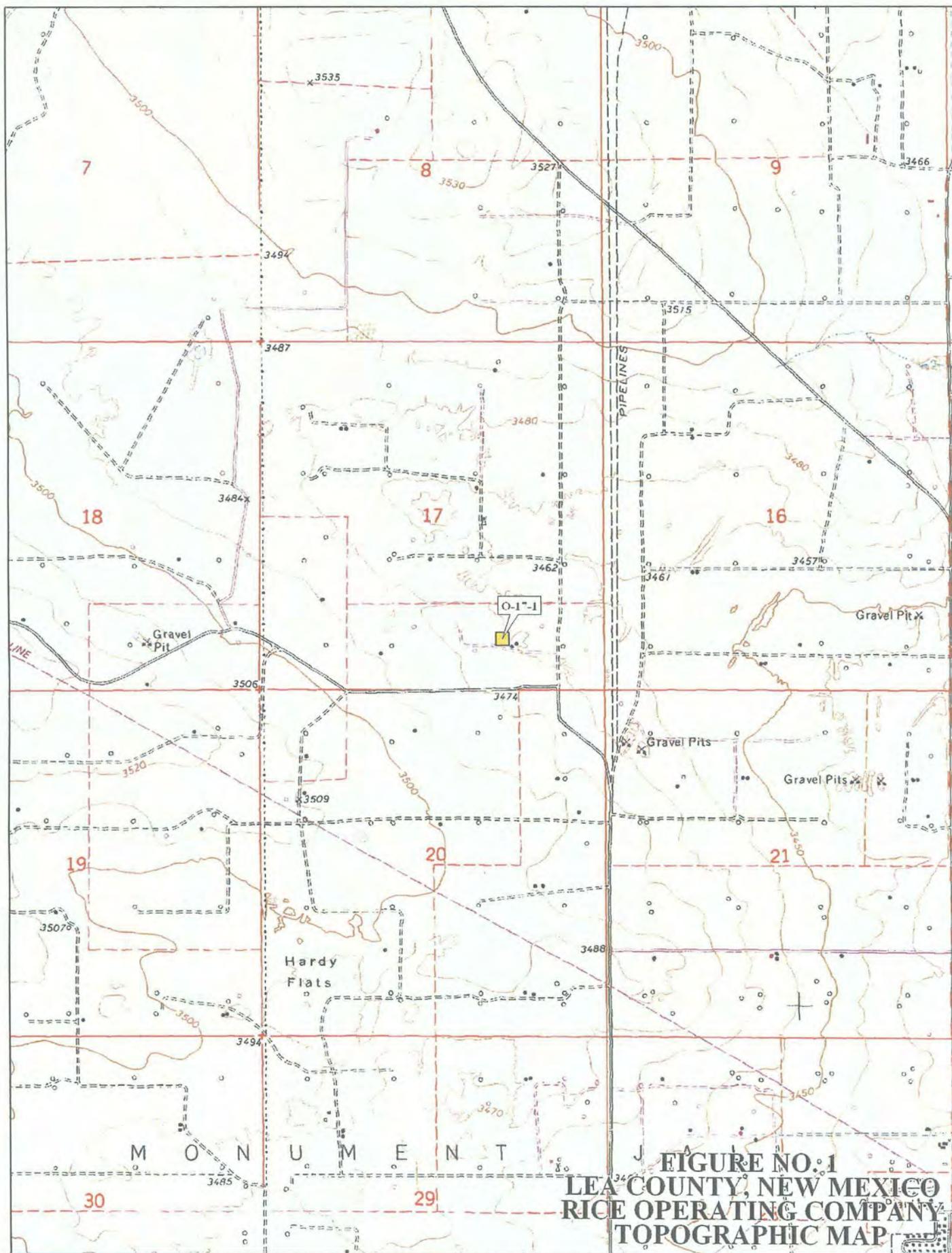
cc: ROC  
Edward Hansen-NMOCD

enclosures: site maps, data tables, lab results, figures



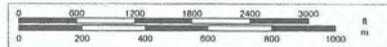
Figures





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www.delorme.com

Scale 1 : 24,000  
1" = 2000 ft



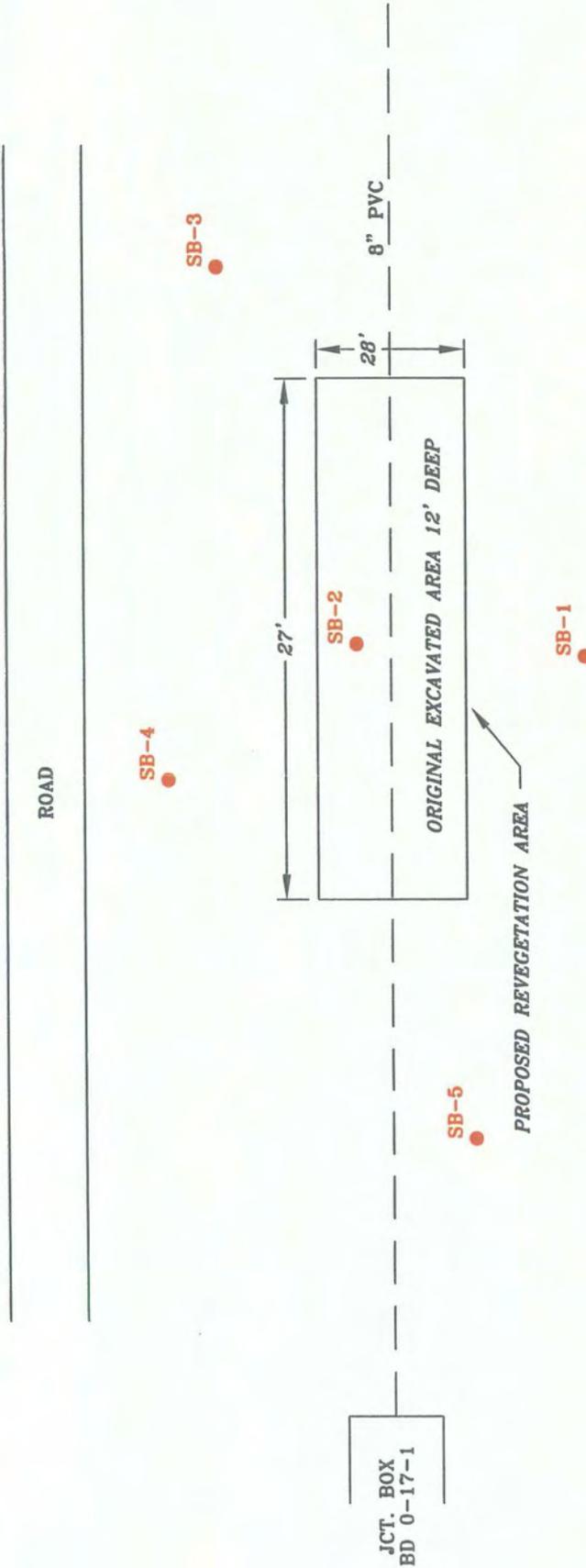


FIGURE NO. 2

LEA COUNTY, NEW MEXICO  
 RICE OPERATING COMPANY  
 BD 0-17-1  
 SOIL BORING LOCATIONS  
 HIGHLANDER ENVIRONMENTAL CORP.  
 MIDLAND, TEXAS

DATE: 8/14/06  
 DRAWN BY: JU  
 FILE: C:\mex\1844 SITE.MXD

● SOIL BORING LOCATIONS

NOT TO SCALE

Tables

Table 1  
Rice Operating  
BD O-17-1  
Lea County, New Mexico

Sample ID	Date Sampled	Sample Depth (ft)	Chlorides Field (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg)			
					C6-C12	C12-C28	C28-C35	Total
SB-1	10/09/06	13-15'	895	978	<10.0	314	56.7	371
SB-1	10/09/06	18-20'	571	213	NA	NA	NA	NA
SB-1	10/09/06	23-25'	212	255	NA	NA	NA	NA
SB-1	10/09/06	28-30'	169	NA	NA	NA	NA	NA
SB-1	10/09/06	33-35'	226	298	NA	NA	NA	NA
SB-2	10/09/06	13-15'	1,293	638	30.4	553	94.4	678
SB-2	10/09/06	18-20'	995	1,360	<10.0	80	<10.0	80
SB-2	10/09/06	23-25'	210	681	NA	NA	NA	NA
SB-2	10/09/06	28-30'	930	638	NA	NA	NA	NA
SB-2	10/09/06	33-35'	411	362	NA	NA	NA	NA
SB-2	10/09/06	38-40'	621	181	NA	NA	NA	NA
SB-2	10/09/06	43-45'	374	128	NA	NA	NA	NA
SB-2	10/09/06	48-50'	270	95.7	NA	NA	NA	NA
SB-2	10/09/06	53-55'	266	21.3	NA	NA	NA	NA
SB-2	10/09/06	58-60'	239	31.9	NA	NA	NA	NA
SB-3	10/09/06	3-5'	274	106	<10.0	13.2	<10.0	13.2
SB-3	10/09/06	8-10'	470	425	NA	NA	NA	NA
SB-3	10/09/06	13-15'	615	596	NA	NA	NA	NA
SB-3	10/09/06	18-20'	488	638	NA	NA	NA	NA
SB-3	10/09/06	23-25'	682	596	NA	NA	NA	NA
SB-3	10/09/06	28-30'	441	383	NA	NA	NA	NA
SB-3	10/09/06	33-35'	276	53.2	NA	NA	NA	NA
SB-3	10/09/06	38-40'	234	42.5	NA	NA	NA	NA
SB-4	10/09/06	3-5'	348	128	<10.0	<10.0	<10.0	<10.0
SB-4	10/09/06	8-10'	556	596	NA	NA	NA	NA
SB-4	10/09/06	13-15'	255	213	NA	NA	NA	NA
SB-4	10/09/06	18-20'	235	42.5	NA	NA	NA	NA
SB-4	10/09/06	23-25'	149	63.8	NA	NA	NA	NA
SB-5	10/09/06	13-15'	834	1,110	<10.0	<10.0	<10.0	<10.0
SB-5	10/09/06	18-20'	406	468	NA	NA	NA	NA
SB-5	10/09/06	23-25'	300	234	NA	NA	NA	NA
SB-5	10/09/06	28-30'	236	128	NA	NA	NA	NA
SB-5	10/09/06	33-35'	160	31.9	NA	NA	NA	NA

Appendix A

RICE OPERATING COMPANY  
JUNCTION BOX DISCLOSURE\* REPORT

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth
Blinebry-Drinkard	O-17-1 vent	O	17	21S	37E	Lea	No Box		

LAND TYPE: BLM \_\_\_\_\_ STATE \_\_\_\_\_ FEE LANDOWNER Millard Deck Estate OTHER \_\_\_\_\_

Depth to Groundwater 70 feet NMOCD SITE ASSESSMENT RANKING SCORE: 10

Date Started 3/7/2003 Date Completed 8/29/2003 OCD Witness No

Soil Excavated 240 cubic yards Excavation Length 30 Width 18 Depth 12 feet

Soil Disposed 0 cubic yards Offsite Facility n/a Location n/a

FINAL ANALYTICAL RESULTS: Sample Date 3/17/2003 Sample Depth 12 ft bgs

Procure 5-point composite sample of bottom and 4-point composite sample of sidewalls. TPH, BTEX and Chloride laboratory test results completed by using an approved lab and testing procedures pursuant to NMOCD guidelines.

Sample Location	Benzene mg/kg	Toluene mg/kg	Ethyl Benzene mg/kg	Total Xylenes mg/kg	GRO mg/kg	DRO mg/kg	Chloride mg/kg
SIDEWALLS	<0.025	<0.025	0.051	0.281	126	1290	1810
BOTTOM	<0.100	0.972	4.44	19.42	1420	5280	1740

General Description of Remedial Action: This junction box once contained a vent but the junction has been eliminated and the site re-plumbed straight through with new poly pipeline. The 30 x 18 x 12 ft deep excavation yielded TPH impact to at least 12 ft deep. Vertically, the 8 ft and 12 ft samples were field-tested for chlorides, yielding 1000 and 400 ppm respectively. However, there was not a lateral decline in chloride concentrations on the excavation walls. The color change in the titration of the chloride test was difficult to detect due to the TPH concentration and the color of the soil sample, which may account for the discrepancy with the lab results. The excavation has been backfilled and the location identified for further consideration at a later date.

LOCATION	DEPTH (ft)	ppm
----------	------------	-----

CHLORIDE FIELD TESTS

Vertical	8	1000
Vertical	12	400

TPH FIELD TESTS

Vertical	4	28220
Vertical	8	49220
Vertical	12	35070

**ADDITIONAL EVALUATION IS HIGH PRIORITY.**

cc: lab results, photos

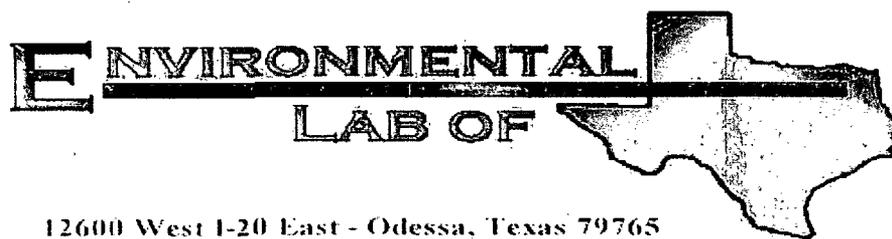
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE 9/16/2003 PRINTED NAME Kristin Farris

SIGNATURE *Kristin Farris* TITLE Project Scientist

\* This site is a "DISCLOSURE." It will be placed on a prioritized list of similar sites for further consideration.

Appendix B



12600 West I-20 East - Odessa, Texas 79765

## Analytical Report

**Prepared for:**

Tim Reed

Highlander Environmental Corp.

1910 N. Big Spring St.

Midland, TX 79705

Project: Rice/ 0-17-1

Project Number: 2644

Location: None Given

Lab Order Number: 6J13017

Report Date: 10/23/06

Highlander Environmental Corp.  
1910 N. Big Spring St.  
Midland TX, 79705

Project: Rice/ 0-17-1  
Project Number: 2644  
Project Manager: Tim Reed

Fax: (432) 682-3946

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-1 13-15'	6J13017-01	Soil	10/09/06 00:00	10-13-2006 16:20
SB-1 18-20'	6J13017-02	Soil	10/09/06 00:00	10-13-2006 16:20
SB-1 23-25'	6J13017-03	Soil	10/09/06 00:00	10-13-2006 16:20
SB-1 33-35'	6J13017-04	Soil	10/09/06 00:00	10-13-2006 16:20
SB-2 13-15'	6J13017-05	Soil	10/09/06 00:00	10-13-2006 16:20
SB-2 18-20'	6J13017-06	Soil	10/09/06 00:00	10-13-2006 16:20
SB-2 23-25'	6J13017-07	Soil	10/09/06 00:00	10-13-2006 16:20
SB-2 28-30'	6J13017-08	Soil	10/09/06 00:00	10-13-2006 16:20
SB-2 33-35'	6J13017-09	Soil	10/09/06 00:00	10-13-2006 16:20
SB-2 38-40'	6J13017-10	Soil	10/09/06 00:00	10-13-2006 16:20
SB-2 43-45'	6J13017-11	Soil	10/09/06 00:00	10-13-2006 16:20
SB-2 48-50'	6J13017-12	Soil	10/09/06 00:00	10-13-2006 16:20
SB-2 53-55'	6J13017-13	Soil	10/09/06 00:00	10-13-2006 16:20
SB-2 58-60'	6J13017-14	Soil	10/09/06 00:00	10-13-2006 16:20
SB-3 3-5'	6J13017-15	Soil	10/09/06 00:00	10-13-2006 16:20
SB-3 8-10'	6J13017-16	Soil	10/09/06 00:00	10-13-2006 16:20
SB-3 13-15'	6J13017-17	Soil	10/09/06 00:00	10-13-2006 16:20
SB-3 18-20'	6J13017-18	Soil	10/09/06 00:00	10-13-2006 16:20
SB-3 23-25'	6J13017-19	Soil	10/09/06 00:00	10-13-2006 16:20
SB-3 28-30'	6J13017-20	Soil	10/09/06 00:00	10-13-2006 16:20
SB-3 33-35'	6J13017-21	Soil	10/09/06 00:00	10-13-2006 16:20
SB-3 38-40'	6J13017-22	Soil	10/09/06 00:00	10-13-2006 16:20
SB-4 3-5'	6J13017-23	Soil	10/09/06 00:00	10-13-2006 16:20
SB-4 8-10'	6J13017-24	Soil	10/09/06 00:00	10-13-2006 16:20
SB-4 13-15'	6J13017-25	Soil	10/09/06 00:00	10-13-2006 16:20
SB-4 18-20'	6J13017-26	Soil	10/09/06 00:00	10-13-2006 16:20
SB-4 23-25'	6J13017-27	Soil	10/09/06 00:00	10-13-2006 16:20
SB-5 13-15'	6J13017-28	Soil	10/09/06 00:00	10-13-2006 16:20
SB-5 18-20'	6J13017-29	Soil	10/09/06 00:00	10-13-2006 16:20
SB-5 23-25'	6J13017-30	Soil	10/09/06 00:00	10-13-2006 16:20
SB-5 28-30'	6J13017-31	Soil	10/09/06 00:00	10-13-2006 16:20
SB-5 32-35'	6J13017-32	Soil	10/09/06 00:00	10-13-2006 16:20

Highlander Environmental Corp. 1910 N. Big Spring St. Midland TX, 79705	Project: Rice/0-17-1 Project Number: 2644 Project Manager: Tim Reed	Fax: (432) 682-3946
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**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SB-1 13-15' (6J13017-01) Soil</b>									
Carbon Ranges C6-C12	J [7.69]	10.0	mg/kg dry	1	EJ61502	10/15/06	10/15/06	EPA 8015M	J
Carbon Ranges C12-C28	314	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	56.7	10.0	"	"	"	"	"	"	
<b>Total Hydrocarbons</b>	<b>371</b>	<b>10.0</b>	<b>"</b>	<b>"</b>	<b>"</b>	<b>"</b>	<b>"</b>	<b>"</b>	
<i>Surrogate: 1-Chlorooctane</i>		89.6 %		70-130	"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		79.4 %		70-130	"	"	"	"	
<b>SB-2 13-15' (6J13017-05) Soil</b>									
Carbon Ranges C6-C12	30.4	10.0	mg/kg dry	1	EJ61502	10/15/06	10/15/06	EPA 8015M	
Carbon Ranges C12-C28	553	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	94.4	10.0	"	"	"	"	"	"	
<b>Total Hydrocarbons</b>	<b>678</b>	<b>10.0</b>	<b>"</b>	<b>"</b>	<b>"</b>	<b>"</b>	<b>"</b>	<b>"</b>	
<i>Surrogate: 1-Chlorooctane</i>		90.8 %		70-130	"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		80.2 %		70-130	"	"	"	"	
<b>SB-2 18-20' (6J13017-06) Soil</b>									
Carbon Ranges C6-C12	J [9.93]	10.0	mg/kg dry	1	EJ61502	10/15/06	10/16/06	EPA 8015M	J
Carbon Ranges C12-C28	80.0	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	J [9.44]	10.0	"	"	"	"	"	"	J
<b>Total Hydrocarbons</b>	<b>80.0</b>	<b>10.0</b>	<b>"</b>	<b>"</b>	<b>"</b>	<b>"</b>	<b>"</b>	<b>"</b>	
<i>Surrogate: 1-Chlorooctane</i>		91.6 %		70-130	"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		80.2 %		70-130	"	"	"	"	
<b>SB-3 3-5' (6J13017-15) Soil</b>									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EJ61502	10/15/06	10/16/06	EPA 8015M	
Carbon Ranges C12-C28	13.2	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
<b>Total Hydrocarbons</b>	<b>13.2</b>	<b>10.0</b>	<b>"</b>	<b>"</b>	<b>"</b>	<b>"</b>	<b>"</b>	<b>"</b>	
<i>Surrogate: 1-Chlorooctane</i>		87.2 %		70-130	"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		80.6 %		70-130	"	"	"	"	

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 Midland TX, 79705

Project: Rice/ 0-17-1  
 Project Number: 2644  
 Project Manager: Tim Reed

Fax: (432) 682-3946

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SB-4 3-5' (6J13017-23) Soil</b>									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EJ61609	10/16/06	10/17/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		87.8 %		70-130	"	"	"	"	
Surrogate: 1-Chlorooctadecane		79.8 %		70-130	"	"	"	"	
<b>SB-5 13-15' (6J13017-28) Soil</b>									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EJ61502	10/15/06	10/16/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		89.4 %		70-130	"	"	"	"	
Surrogate: 1-Chlorooctadecane		78.8 %		70-130	"	"	"	"	

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Highlander Environmental Corp.  
1910 N. Big Spring St.  
Midland TX, 79705

Project: Rice/ 0-17-1  
Project Number: 2644  
Project Manager: Tim Reed

Fax: (432) 682-3946

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SB-1 13-15' (6J13017-01) Soil</b>									
Chloride	978	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
% Moisture	7.2	0.1	%	1	EJ61601	10/13/06	10/16/06	% calculation	
<b>SB-1 18-20' (6J13017-02) Soil</b>									
Chloride	213	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
<b>SB-1 23-25' (6J13017-03) Soil</b>									
Chloride	255	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
<b>SB-1 33-35' (6J13017-04) Soil</b>									
Chloride	298	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
<b>SB-2 13-15' (6J13017-05) Soil</b>									
Chloride	638	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
% Moisture	10.9	0.1	%	1	EJ61601	10/13/06	10/16/06	% calculation	
<b>SB-2 18-20' (6J13017-06) Soil</b>									
Chloride	1360	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
% Moisture	10.1	0.1	%	1	EJ61601	10/13/06	10/16/06	% calculation	
<b>SB-2 23-25' (6J13017-07) Soil</b>									
Chloride	681	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
<b>SB-2 28-30' (6J13017-08) Soil</b>									
Chloride	638	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
<b>SB-2 33-35' (6J13017-09) Soil</b>									
Chloride	362	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
<b>SB-2 38-40' (6J13017-10) Soil</b>									
Chloride	181	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	

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Highlander Environmental Corp. 1910 N. Big Spring St. Midland TX, 79705	Project: Rice/ 0-17-1 Project Number: 2644 Project Manager: Tim Reed	Fax: (432) 682-3946
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**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SB-2 43-45' (6J13017-11) Soil</b>									
Chloride	128	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
<b>SB-2 48-50' (6J13017-12) Soil</b>									
Chloride	95.7	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
<b>SB-2 53-55' (6J13017-13) Soil</b>									
Chloride	21.3	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
<b>SB-2 58-60' (6J13017-14) Soil</b>									
Chloride	31.9	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
<b>SB-3 3-5' (6J13017-15) Soil</b>									
Chloride	106	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
% Moisture	3.8	0.1	%	1	EJ61601	10/13/06	10/16/06	% calculation	
<b>SB-3 8-10' (6J13017-16) Soil</b>									
Chloride	425	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
<b>SB-3 13-15' (6J13017-17) Soil</b>									
Chloride	596	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
<b>SB-3 18-20' (6J13017-18) Soil</b>									
Chloride	638	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
<b>SB-3 23-25' (6J13017-19) Soil</b>									
Chloride	596	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	
<b>SB-3 28-30' (6J13017-20) Soil</b>									
Chloride	383	20.0	mg/kg Wet	2	EJ62014	10/20/06	10/22/06	SW 846 9253	

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Highlander Environmental Corp.  
 1910 N. Big Spring St.  
 Midland TX, 79705

Project: Rice/ 0-17-1  
 Project Number: 2644  
 Project Manager: Tim Reed

Fax: (432) 682-3946

**General Chemistry Parameters by EPA / Standard Methods  
 Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SB-3 33-35' (6J13017-21) Soil</b>									
Chloride	53.2	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	
<b>SB-3 38-40' (6J13017-22) Soil</b>									
Chloride	42.5	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	
<b>SB-4 3-5' (6J13017-23) Soil</b>									
Chloride	128	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	
% Moisture	12.0	0.1	%	1	EJ61601	10/13/06	10/16/06	% calculation	
<b>SB-4 8-10' (6J13017-24) Soil</b>									
Chloride	596	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	
<b>SB-4 13-15' (6J13017-25) Soil</b>									
Chloride	213	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	
<b>SB-4 18-20' (6J13017-26) Soil</b>									
Chloride	42.5	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	
<b>SB-4 23-25' (6J13017-27) Soil</b>									
Chloride	63.8	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	
<b>SB-5 13-15' (6J13017-28) Soil</b>									
Chloride	1110	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	
% Moisture	12.1	0.1	%	1	EJ61601	10/13/06	10/16/06	% calculation	
<b>SB-5 18-20' (6J13017-29) Soil</b>									
Chloride	468	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	
<b>SB-5 23-25' (6J13017-30) Soil</b>									
Chloride	234	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	

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Highlander Environmental Corp.  
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 Midland TX, 79705

Project: Rice/ 0-17-1  
 Project Number: 2644  
 Project Manager: Tim Reed

Fax: (432) 682-3946

**General Chemistry Parameters by EPA / Standard Methods  
 Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>SB-5 28-30' (6J13017-31) Soil</b>									
Chloride	128	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	
<b>SB-5 32-35' (6J13017-32) Soil</b>									
Chloride	31.9	20.0	mg/kg Wet	2	EJ62015	10/20/06	10/22/06	SW 846 9253	

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Midland TX, 79705

Project: Rice/ 0-17-1  
Project Number: 2644  
Project Manager: Tim Reed

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**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EJ61502 - Solvent Extraction (GC)**

<b>Blank (EJ61502-BLK1)</b>										
										Prepared & Analyzed: 10/15/06
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	45.3		mg/kg	50.0		90.6	70-130			
Surrogate: 1-Chlorooctadecane	41.1		"	50.0		82.2	70-130			

<b>LCS (EJ61502-BS1)</b>										
										Prepared & Analyzed: 10/15/06
Carbon Ranges C6-C12	486	10.0	mg/kg wet	500		97.2	75-125			
Carbon Ranges C12-C28	474	10.0	"	500		94.8	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	960	10.0	"	1000		96.0	75-125			
Surrogate: 1-Chlorooctane	58.0		mg/kg	50.0		116	70-130			
Surrogate: 1-Chlorooctadecane	43.7		"	50.0		87.4	70-130			

<b>Calibration Check (EJ61502-CCV1)</b>										
										Prepared: 10/15/06 Analyzed: 10/16/06
Carbon Ranges C6-C12	203		mg/kg	250		81.2	80-120			
Carbon Ranges C12-C28	237		"	250		94.8	80-120			
Total Hydrocarbons	440		"	500		88.0	80-120			
Surrogate: 1-Chlorooctane	47.8		"	50.0		95.6	70-130			
Surrogate: 1-Chlorooctadecane	38.4		"	50.0		76.8	70-130			

<b>Matrix Spike (EJ61502-MS1)</b>										
										Source: 6J13015-01 Prepared: 10/15/06 Analyzed: 10/16/06
Carbon Ranges C6-C12	527	10.0	mg/kg dry	567	ND	92.9	75-125			
Carbon Ranges C12-C28	507	10.0	"	567	ND	89.4	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1030	10.0	"	1130	ND	91.2	75-125			
Surrogate: 1-Chlorooctane	56.9		mg/kg	50.0		114	70-130			
Surrogate: 1-Chlorooctadecane	43.3		"	50.0		86.6	70-130			

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**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EJ61502 - Solvent Extraction (GC)**

<b>Matrix Spike Dup (EJ61502-MSD1)</b>		<b>Source: 6J13015-01</b>		<b>Prepared: 10/15/06</b>		<b>Analyzed: 10/16/06</b>				
Carbon Ranges C6-C12	525	10.0	mg/kg dry	567	ND	92.6	75-125	0.380	20	
Carbon Ranges C12-C28	513	10.0	"	567	ND	90.5	75-125	1.18	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1040	10.0	"	1130	ND	92.0	75-125	0.966	20	
Surrogate: 1-Chlorooctane	57.1		mg/kg	50.0		114	70-130			
Surrogate: 1-Chlorooctadecane	42.8		"	50.0		85.6	70-130			

**Batch EJ61609 - Solvent Extraction (GC)**

<b>Blank (EJ61609-BLK1)</b>				<b>Prepared: 10/16/06</b>		<b>Analyzed: 10/17/06</b>				
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	48.3		mg/kg	50.0		96.6	70-130			
Surrogate: 1-Chlorooctadecane	45.0		"	50.0		90.0	70-130			

<b>LCS (EJ61609-BS1)</b>				<b>Prepared: 10/16/06</b>		<b>Analyzed: 10/17/06</b>				
Carbon Ranges C6-C12	469	10.0	mg/kg wet	500		93.8	75-125			
Carbon Ranges C12-C28	452	10.0	"	500		90.4	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	921	10.0	"	1000		92.1	75-125			
Surrogate: 1-Chlorooctane	60.5		mg/kg	50.0		121	70-130			
Surrogate: 1-Chlorooctadecane	46.4		"	50.0		92.8	70-130			

<b>Calibration Check (EJ61609-CCV1)</b>				<b>Prepared: 10/16/06</b>		<b>Analyzed: 10/18/06</b>				
Carbon Ranges C6-C12	216		mg/kg	250		86.4	80-120			
Carbon Ranges C12-C28	248		"	250		99.2	80-120			
Total Hydrocarbons	464		"	500		92.8	80-120			
Surrogate: 1-Chlorooctane	64.5		"	50.0		129	70-130			
Surrogate: 1-Chlorooctadecane	62.7		"	50.0		125	70-130			

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**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EJ61609 - Solvent Extraction (GC)**

Matrix Spike (EJ61609-MS1)	Source: 6J16003-03			Prepared: 10/16/06		Analyzed: 10/17/06	
Carbon Ranges C6-C12	511	10.0	mg/kg dry	572	ND	89.3	75-125
Carbon Ranges C12-C28	504	10.0	"	572	ND	88.1	75-125
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125
Total Hydrocarbons	1020	10.0	"	1140	ND	89.5	75-125
Surrogate: 1-Chlorooctane	56.5		mg/kg	50.0		113	70-130
Surrogate: 1-Chlorooctadecane	43.8		"	50.0		87.6	70-130

Matrix Spike Dup (EJ61609-MSD1)	Source: 6J16003-03			Prepared: 10/16/06		Analyzed: 10/17/06			
Carbon Ranges C6-C12	511	10.0	mg/kg dry	572	ND	89.3	75-125	0.00	20
Carbon Ranges C12-C28	500	10.0	"	572	ND	87.4	75-125	0.797	20
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20
Total Hydrocarbons	1010	10.0	"	1140	ND	88.6	75-125	0.985	20
Surrogate: 1-Chlorooctane	55.2		mg/kg	50.0		110	70-130		
Surrogate: 1-Chlorooctadecane	41.0		"	50.0		82.0	70-130		

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Highlander Environmental Corp.  
1910 N. Big Spring St.  
Midland TX, 79705

Project: Rice/ 0-17-1  
Project Number: 2644  
Project Manager: Tim Reed

Fax: (432) 682-3946

**General Chemistry Parameters by EPA / Standard Methods - Quality Control  
Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch EJ61601 - General Preparation (Prep)</b>										
<b>Blank (EJ61601-BLK1)</b> Prepared: 10/13/06 Analyzed: 10/16/06										
% Solids	100		%							
<b>Duplicate (EJ61601-DUP1)</b> Source: 6J13004-01 Prepared: 10/13/06 Analyzed: 10/16/06										
% Solids	74.4		%		74.5			0.134	20	
<b>Duplicate (EJ61601-DUP2)</b> Source: 6J13017-06 Prepared: 10/13/06 Analyzed: 10/16/06										
% Solids	90.4		%		89.9			0.555	20	
<b>Duplicate (EJ61601-DUP3)</b> Source: 6J13021-05 Prepared: 10/13/06 Analyzed: 10/16/06										
% Solids	89.8		%		90.8			1.11	20	
<b>Duplicate (EJ61601-DUP4)</b> Source: 6J14001-02 Prepared: 10/13/06 Analyzed: 10/16/06										
% Solids	85.1		%		85.1			0.00	20	
<b>Batch EJ62014 - Water Extraction</b>										
<b>Blank (EJ62014-BLK1)</b> Prepared: 10/20/06 Analyzed: 10/22/06										
Chloride	ND	20.0	mg/kg Wet							
<b>LCS (EJ62014-BS1)</b> Prepared: 10/20/06 Analyzed: 10/22/06										
Chloride	92.5	5.00	mg/kg Wet	100		92.5	80-120			
<b>Matrix Spike (EJ62014-MS1)</b> Source: 6J13017-13 Prepared: 10/20/06 Analyzed: 10/22/06										
Chloride	521	20.0	mg/kg Wet	500	21.3	99.9	80-120			
<b>Matrix Spike Dup (EJ62014-MSD1)</b> Source: 6J13017-13 Prepared: 10/20/06 Analyzed: 10/22/06										
Chloride	532	20.0	mg/kg Wet	500	21.3	102	80-120	2.09	20	

Environmental Lab of Texas

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.*

Highlander Environmental Corp.  
 1910 N. Big Spring St.  
 Midland TX, 79705

Project: Rice/ 0-17-1  
 Project Number: 2644  
 Project Manager: Tim Reed

Fax: (432) 682-3946

**General Chemistry Parameters by EPA / Standard Methods - Quality Control  
 Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch EJ62014 - Water Extraction</b>										
<b>Reference (EJ62014-SRM1)</b>					Prepared: 10/20/06 Analyzed: 10/22/06					
Chloride	51.0		mg/kg	50.0		102	80-120			
<b>Batch EJ62015 - Water Extraction</b>										
<b>Blank (EJ62015-BLK1)</b>					Prepared: 10/20/06 Analyzed: 10/22/06					
Chloride	ND	20.0	mg/kg Wet							
<b>LCS (EJ62015-BS1)</b>					Prepared: 10/20/06 Analyzed: 10/22/06					
Chloride	91.5	5.00	mg/kg Wet	100		91.5	80-120			
<b>Matrix Spike (EJ62015-MS1)</b>					Source: 6J13017-23 Prepared: 10/20/06 Analyzed: 10/22/06					
Chloride	638	20.0	mg/kg Wet	500	128	102	80-120			
<b>Matrix Spike Dup (EJ62015-MSD1)</b>					Source: 6J13017-23 Prepared: 10/20/06 Analyzed: 10/22/06					
Chloride	649	20.0	mg/kg Wet	500	128	104	80-120	1.71	20	
<b>Reference (EJ62015-SRM1)</b>					Prepared: 10/20/06 Analyzed: 10/22/06					
Chloride	52.1		mg/kg	50.0		104	80-120			

Environmental Lab of Texas

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Highlander Environmental Corp.  
1910 N. Big Spring St.  
Midland TX, 79705

Project: Rice/0-17-1  
Project Number: 2644  
Project Manager: Tim Reed

Fax: (432) 682-3946

**Notes and Definitions**

- J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- LCS Laboratory Control Spike
- MS Matrix Spike
- Dup Duplicate

Report Approved By: Raland K Tuttle Date: 10/23/2006

Raland K. Tuttle, Lab Manager  
Celey D. Keene, Lab Director, Org. Tech Director  
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director  
LaTasha Cornish, Chemist  
Sandra Sanchez, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.*



# Analysis Request and Chain of Custody Record

## HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.  
Midland, Texas 79705

(432) 682-4559

Fax (432) 682-3946

CLIENT NAME: <i>Rice Engineering</i>		SITE MANAGER: <i>Tim Red</i>	
PROJECT NO.: <i>2644</i>		PROJECT NAME: <i>D-17-1</i>	
LAB I.D. NUMBER	DATE	TIME	MATRIX
<i>10</i>	<i>10/16/06</i>		<i>S</i>
<i>11</i>	<i>10/16/06</i>		<i>S</i>
<i>12</i>	<i>10/16/06</i>		<i>S</i>
<i>13</i>	<i>10/16/06</i>		<i>S</i>
<i>14</i>	<i>10/16/06</i>		<i>S</i>
<i>15</i>	<i>10/16/06</i>		<i>S</i>
<i>16</i>	<i>10/16/06</i>		<i>S</i>
<i>17</i>	<i>10/16/06</i>		<i>S</i>
<i>18</i>	<i>10/16/06</i>		<i>S</i>
<i>19</i>	<i>10/16/06</i>		<i>S</i>

NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD		
1		HCL	HNO3	ICE
1				NONE

SAMPLE IDENTIFICATION	GRAB	COMP
<i>S0-2 (28-50)</i>		
<i>S0-2 (43-45)</i>		
<i>S0-2 (48-50)</i>		
<i>S0-2 (53-55)</i>		
<i>S0-2 (58-60)</i>		
<i>S0-3 (3-5)</i>		
<i>S0-3 (8-10)</i>		
<i>S0-3 (13-15)</i>		
<i>S0-3 (18-20)</i>		
<i>S0-3 (23-25)</i>		

PAGE: 2 OF: 4

ANALYSIS REQUEST  
(Circle or Specify Method No.)

HTX 802/002	
MTS 802/002	
TPH 401 2015 MOD. 731005	
FAH 8270	
HCRM Metals Ag As Ba Cd Cr Pb Hg Se	
TCIP Volatiles	
TCIP Semi Volatiles	
RCI	
GCMS Vol. 0240/0280/024	
GCMS Semi. Vol. 0270/025	
PCB's 8090/808	
PEL 808/808	
BOD, TSS, PH, TDS	
Chloride	
Gamma Spec.	
Alpha Beta (Air)	
PLM (Asbestos)	

RECEIVED BY: (Signature) \_\_\_\_\_ DATE: *10/13/06*

RECEIVING LABORATORY: *Environmental Labs of TX*

CITY: *Midland* STATE: *TX* ZIP: \_\_\_\_\_

CONTACT: \_\_\_\_\_ PHONE: \_\_\_\_\_

MATRIX: *S-Sol* *A-Air* *ED-Solid* *O-Other*

DATE: *10/13/06* TIME: *4:20*

SAMPLE CONDITION WHEN RECEIVED: \_\_\_\_\_

REMARKS: \_\_\_\_\_

SAMPLED BY: (Print & Sign) *Jeffery Kinley* DATE: *10/13/06*

TIME: *1:00*

PREPARED BY: (Print & Sign) \_\_\_\_\_

DATE: \_\_\_\_\_

TIME: \_\_\_\_\_

SHIP BY: *UPS*

TRACKING # \_\_\_\_\_

DATE DELIVERED: \_\_\_\_\_

TIME: \_\_\_\_\_

RECEIVED BY: (Signature) \_\_\_\_\_ DATE: \_\_\_\_\_

TIME: \_\_\_\_\_

HIGHLANDER CONTACT PERSON: *Tim Red*

RUSH CHARGES AUTHORIZED: *Yes*

Please Fill out all copies - Laboratory retains yellow copy - Return original copy to Highlander Environmental Corp. - Project Manager retains pink copy - Accounting receives Gold copy.





**Environmental Lab of Texas**  
 Variance/ Corrective Action Report- Sample Log-In

Client: Highlander  
 Date/ Time: 10/13/20 4:20  
 Lab ID #: 105130  
 Initials: OK

**Sample Receipt Checklist**

				Client Initials
#1	Temperature of container/ cooler?	Yes	No	3.0 °C
#2	Shipping container in good condition?	<u>Yes</u>	No	
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present
#5	Chain of Custody present?	<u>Yes</u>	No	
#6	Sample instructions complete of Chain of Custody?	<u>Yes</u>	No	
#7	Chain of Custody signed when relinquished/ received?	<u>Yes</u>	No	
#8	Chain of Custody agrees with sample label(s)?	<u>Yes</u>	No	ID written on Cont./ Lid
#9	Container label(s) legible and intact?	<u>Yes</u>	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	<u>Yes</u>	No	
#11	Containers supplied by EL0T?	<u>Yes</u>	No	
#12	Samples in proper container/ bottle?	<u>Yes</u>	No	See Below
#13	Samples properly preserved?	<u>Yes</u>	No	See Below
#14	Sample bottles intact?	<u>Yes</u>	No	
#15	Preservations documented on Chain of Custody?	<u>Yes</u>	No	
#16	Containers documented on Chain of Custody?	<u>Yes</u>	No	
#17	Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No	See Below
#18	All samples received within sufficient hold time?	<u>Yes</u>	No	See Below
#19	VOC samples have zero headspace?	<u>Yes</u>	No	Not Applicable

**Variance Documentation**

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/ Time: \_\_\_\_\_

Regarding: \_\_\_\_\_

Corrective Action Taken: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

- Check all that Apply:
- See attached e-mail/ fax
  - Client understands and would like to proceed with analysis
  - Cooling process had begun shortly after sampling event

Appendix C

### SAMPLE LOG

**Boring/Well:** SB-1  
**Project Number:** 2644  
**Client:** Rice Engineering  
**Site Location:** BD 0-17-1  
**Location:** Lea County, New Mexico  
**Total Depth:** 35  
**Date Installed:** 10/09/06

DEPTH (in feet)	OVM	CHLORIDES (in mg/Kg)	SAMPLE DESCRIPTION
13-15	25	895	Tan calcareous sand with slight hydrocarbon odor
18-20	0	571	Tan calcareous fine grain sand
23-25	0	212	Tan calcareous fine grain sand
28-30	0	169	Tan calcareous fine grain sand
33-35	0	226	Tan calcareous fine grain sand

Boring completed at 35 feet bgs

## SAMPLE LOG

Boring/Well: SB-2  
 Project Number: 2644  
 Client: Rice Engineering  
 Site Location: BD 0-17-1  
 Location: Lea County, New Mexico  
 Total Depth: 60  
 Date Installed: 10/09/06

DEPTH (in feet)	OVM	CHLORIDES (in mg/Kg)	SAMPLE DESCRIPTION
13-15	28	1293	Tan calcareous sand with slight hydrocarbon odor
18-20	25	995	Tan calcareous fine grain sand
23-25	10	210	Tan calcareous fine grain sand
28-30	2	930	Tan calcareous fine grain sand
33-35	0	411	Tan calcareous fine grain sand
38-40	0	621	Tan calcareous fine grain sand
43-45	0	374	Tan calcareous fine grain sand
48-50	0	270	Tan calcareous fine grain sand
53-55	0	266	Tan calcareous fine grain sand
58-60	0	239	Tan calcareous fine grain sand

Boring completed at 60 feet bgs

## SAMPLE LOG

Boring/Well: SB-3  
 Project Number: 2644  
 Client: Rice Engineering  
 Site Location: BD 0-17-1  
 Location: Lea County, New Mexico  
 Total Depth: 40  
 Date Installed: 10/09/06

DEPTH (in feet)	OVM	CHLORIDES (in mg/Kg)	SAMPLE DESCRIPTION
3-5	2	274	Brown fine grain sand
8-10	0	470	Dark brown clayey sand
13-15	0	615	Dark brown clayey sand
18-20	0	488	Dark brown clayey sand
23-25	0	682	Tan calcareous fine grain sand
28-30	0	441	Tan calcareous fine grain sand
33-35	0	276	Tan calcareous fine grain sand
38-40	0	234	Tan calcareous fine grain sand

Boring completed at 40 feet bgs

### SAMPLE LOG

**Boring/Well:** SB-4  
**Project Number:** 2644  
**Client:** Rice Engineering  
**Site Location:** BD 0-17-1  
**Location:** Lea County, New Mexico  
**Total Depth:** 25  
**Date Installed:** 10/10/06

DEPTH (in feet)	OVM	CHLORIDES (in mg/Kg)	SAMPLE DESCRIPTION
3-5	2	348	Tan clayey fine grain sand with no odor or staining
8-10	2	556	Tan calcareous fine grain sand with no odor or staining
13-15	2	255	Tan calcareous fine grain sand with no odor or staining
18-20	2	235	Tan calcareous fine grain sand with no odor or staining
23-25	0	149	Tan calcareous fine grain sand with no odor or staining

Boring completed at 25 feet bgs

### SAMPLE LOG

**Boring/Well:** SB-5  
**Project Number:** 2644  
**Client:** Rice Engineering  
**Site Location:** BD 0-17-1  
**Location:** Lea County, New Mexico  
**Total Depth:** 35  
**Date Installed:** 10/10/06

DEPTH (in feet)	OVM	CHLORIDES (in mg/Kg)	SAMPLE DESCRIPTION
13-15	2	834	Tan/brown calcareous fine grain sand with no odor or staining
18-20	2	406	Tan calcareous fine grain sand with no odor or staining
23-25	0	300	Tan calcareous fine grain sand with no odor or staining
28-30	0	236	Tan calcareous fine grain sand with no odor or staining
33-35	0	149	Tan calcareous fine grain sand with no odor or staining

Boring completed at 35 feet bgs



## APPENDIX B

### Agency Correspondence

---

**From:** [SLO Spills](#)  
**To:** [Stuart Hyde](#); [SLO Spills](#)  
**Cc:** [Billy Ginn](#); [Devin Hencmann](#); [Fatima Smith](#)  
**Subject:** RE: (Notice of Spill) Hilcorp Energy Company - Facility ID fAPP2224169341 - 2/21/2025  
**Date:** Wednesday, February 26, 2025 9:11:48 AM  
**Attachments:** [image006.png](#)  
[image010.png](#)  
[image011.png](#)  
[image012.png](#)  
[image002.png](#)

You don't often get email from [spills@nmslo.gov](mailto:spills@nmslo.gov). [Learn why this is important](#)

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

Thank you for notifying the NMSLO Environmental Compliance Office (ECO) of the incident or release noted in the subject line above and the potential impact to State Trust Land. Once the release is stopped and contained, your cooperation in completing the subsequent remediation tasks is appreciated:

1. Identify compliance requirements for the Cultural Properties Protection (CPP) Rule.
2. Identify avoidance, minimization, or mitigation measures for impact to any biologically sensitive areas.
3. Apply for a Right of Entry (ROE) for Remediation if any part of the remediation occurs off of the active lease of the responsible party. A site delineation plan and reclamation plan are required for the ROE application. (<https://www.nmstatelands.org/resources/forms-and-applications/>)
4. If the remediation closure report is not submitted within 90 days of discovery of the release, a site delineation plan must be submitted to [eco@nmslo.gov](mailto:eco@nmslo.gov) for review and approval. (If delineation and remediation happen concurrently, a remediation plan must be submitted to [eco@nmslo.gov](mailto:eco@nmslo.gov) in place of a site delineation plan.)
5. Subsequent reports that must be submitted to ECO include:
  - **remediation plan;**
  - **reclamation plan, if applicable; or**
  - **remediation with reclamation plan;**
  - **remediation closure report; or**
  - **remediation closure report with reclamation activities report;**
  - **reclamation activities report;**
  - **final reclamation report, if applicable.**

#### **SAMPLING NOTIFICATIONS**

Written notification of the confirmation sampling event must be submitted to ECO a minimum of two (2) business days before the sampling event, or as directed by ECO. Please submit notifications to [eco@nmslo.gov](mailto:eco@nmslo.gov) with the subject line as follows: **(Sampling Notification) Company-Location Name (API/Incident #)-Date of Incident.**

#### **NMSLO RESOURCES**

- RIGHT OF ENTRY FORMS: Rights of Way Forms - <https://www.nmstatelands.org/resources/forms-and-applications/>

- ECO GUIDANCE DOCUMENTS: Environmental Compliance Office - <https://www.nmstatelands.org/resources/forms-and-applications/> (PENDING)
- LEASE STATUS MAP: <https://mapservice.nmstatelands.org/LandStatus/>
- NMSLO OIL & GAS MANUAL: <https://www.nmstatelands.org/wp-content/uploads/2023/07/Oil-and-Gas-Manual-2023- WEB.pdf>
- NMSLO LEASE SEARCH: <https://secure.slo.state.nm.us/Applications/SLOConnect/>

### **CULTURAL PROPERTIES PROTECTION RULE (19.2.24 NMAC) FOR REMEDIATION AND RECLAMATION ACTIVITIES**

- A. As soon as possible, when a new release or damage occurs on STL, contact a Cultural Resource Consultant who will:
1. Conduct an Archaeological Records Management System (ARMS) review to determine if any known cultural properties have been previously identified within the remediation area and if the area has been surveyed for cultural resources.
  2. Advise as to whether an archaeological monitor should be present during initial containment activities and subsequent remediation efforts.
  3. Advise as to whether a full cultural properties survey will be required after containment and before full remediation.
- B. A list of cultural resource consultants permitted to conduct work on state lands is maintained here: <https://www.nhistoricpreservation.org/programs/permits.html>.
- C. To learn more about NMSLO's Cultural Properties Protection Rule visit: <https://www.nmstatelands.org/divisions/cultural-resources-office/culturalproperties/>. CRO can be contacted via email at [croinfo@nmslo.gov](mailto:croinfo@nmslo.gov) or call 505-827-5781.

### **BIOLOGICAL COMPLIANCE & REPORTING**

ECO recommends utilizing the resources below to determine if the site activities are occurring in a sensitive or restricted area. Also, when additional assistance is needed, ECO recommends consulting with a qualified third-party biologist for evaluation of potential impacts to threatened, endangered, and sensitive wildlife and plant species, environmentally sensitive areas, surface waters, cave and karst features, and sensitive soils before conducting remediation and reclamation activities.

### **BIOLOGICAL COMPLIANCE RESOURCES**

- New Mexico State Land Office Land Status Map <https://mapservice.nmstatelands.org/LandStatus>
- U.S. Fish and Wildlife Services [Information for Planning and Consultation:](https://ipac.ecosphere.fws.gov/)  
<https://ipac.ecosphere.fws.gov/>
- BISON-M database: <https://bison-m.org/>
- New Mexico Department of Game and Fish Environmental Review Tool (ERT):  
<https://nmert.org/content/map>
- Open Enviro Map Wetlands: <https://gis.web.env.nm.gov/oem/?map=wetlands>

Thank you for working with ECO, and your efforts to protect State Trust Land.

**Environmental Compliance Office**  
**Surface Resources Division**

[eco@nmslo.gov](mailto:eco@nmslo.gov)  
[nmstatelands.org](http://nmstatelands.org)

.....  
**CONFIDENTIALITY NOTICE** - This e-mail transmission, including all documents, files, or previous e-mail messages attached hereto, may contain confidential and/or legally privileged information. If you are not the intended recipient, or a person responsible for delivering it to the intended recipient, you are hereby notified that you must not read this transmission and that any disclosure, copying, printing, distribution, or use of any of the information contained in and/or attached to this transmission is **STRICTLY PROHIBITED**. If you have received this transmission in error, please immediately notify the sender and delete the original transmission and its attachments without reading or saving in any manner. Thank you.

---

**From:** Stuart Hyde <shyde@ensolum.com>  
**Sent:** Saturday, February 22, 2025 7:38 AM  
**To:** SLO Spills <spills@nmslo.gov>  
**Cc:** Billy Ginn <William.Ginn@hilcorp.com>; Devin Hencmann <dhenemann@ensolum.com>; Fatima Smith <fsmith@ensolum.com>  
**Subject:** [EXTERNAL] (Notice of Spill) Hilcorp Energy Company - Facility ID fAPP2224169341 - 2/21/2025

On behalf of Hilcorp Energy Company, we are reporting the release of 165 barrels of crude oil, of which 160 barrels were recovered, at the State D A CTB site, facility ID fAPP2224169341, Lea County, NM. Attached is the Notification of Release submitted to the NMOCD.



**Stuart Hyde, PG**  
(Licensed in WA/TX)  
Senior Managing Geologist  
970-903-1607  
[Ensolum, LLC](http://ensolum.com)  
in f X

*"If you want to go fast, go alone. If you want to go far, go together." – African Proverb*

---

**From:** [OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us) <[OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us)>  
**Sent:** Saturday, February 22, 2025 7:28 AM  
**To:** Stuart Hyde <[shyde@ensolum.com](mailto:shyde@ensolum.com)>  
**Subject:** The Oil Conservation Division (OCD) has accepted the application, Application ID: 434359

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

To whom it may concern (c/o Stuart Hyde for HILCORP ENERGY COMPANY),

The OCD has accepted the submitted *Notification of a release* (NOR), for incident ID (n#) nAPP2505326850, with the following conditions:

**When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C-141.**

Please reference nAPP2505326850, on all subsequent C-141 submissions and communications regarding the remediation of this release.

**NOTE:** As of December 2019, NMOCD has discontinued the use of the “RP” number.

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

[ocd.enviro@state.nm.us](mailto:ocd.enviro@state.nm.us)

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

**From:** [OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us)  
**To:** [Fatima Smith](#)  
**Subject:** The Oil Conservation Division (OCD) has accepted the application, Application ID: 458475  
**Date:** Monday, May 5, 2025 10:44:06 AM

---

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

To whom it may concern (c/o Fatima Smith for HILCORP ENERGY COMPANY),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2505326850.

The sampling event is expected to take place:

**When:** 05/07/2025 @ 09:00

**Where:** K-16-21S-37E 0 FNL 0 FEL (32.476833,-103.172027)

**Additional Information:** Contact PM Fatima Smith, 575-725-1196

**Additional Instructions:** State D A CTB, coordinates 32.476589, -103.172363

This notification is to alert OCD of sampling that will occur on Wednesday 5/7/2025 through Thursday 5/8/2025.

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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



## APPENDIX C

# Laboratory Analytical Reports

---



Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Devin Hencmann  
 Ensolum  
 601 N. Marienfeld St.  
 Suite 400  
 Midland, Texas 79701

Generated 3/10/2025 2:03:46 PM

## JOB DESCRIPTION

State D A CTB  
 07A1988176

## JOB NUMBER

890-7774-1

Eurofins Carlsbad  
 1089 N Canal St.  
 Carlsbad NM 88220



# Eurofins Carlsbad

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



Generated  
3/10/2025 2:03:46 PM

Authorized for release by  
Jessica Kramer, Project Manager  
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Client: Ensolum  
Project/Site: State D A CTB

Laboratory Job ID: 890-7774-1  
SDG: 07A1988176

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## Definitions/Glossary

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-7774-1  
SDG: 07A1988176

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Case Narrative

Client: Ensolum  
Project: State D A CTB

Job ID: 890-7774-1

**Job ID: 890-7774-1**

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## Job Narrative 890-7774-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

### Receipt

The samples were received on 3/5/2025 4:41 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.8°C.

### Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-7774-1), SS02 (890-7774-2) and SS02A (890-7774-3).

### GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: SS01 (890-7774-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

### Diesel Range Organics

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: SS01 (890-7774-1) and SS02 (890-7774-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

### HPLC/IC

Method 300\_ORGFM\_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-104808 and analytical batch 880-104836 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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### Client Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-7774-1  
SDG: 07A1988176

**Client Sample ID: SS01**

**Lab Sample ID: 890-7774-1**

Date Collected: 03/05/25 10:53

Matrix: Solid

Date Received: 03/05/25 16:41

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.16		0.495	mg/Kg		03/07/25 12:21	03/09/25 10:56	250
Toluene	31.8		0.495	mg/Kg		03/07/25 12:21	03/09/25 10:56	250
Ethylbenzene	37.8		0.495	mg/Kg		03/07/25 12:21	03/09/25 10:56	250
m-Xylene & p-Xylene	52.7		0.990	mg/Kg		03/07/25 12:21	03/09/25 10:56	250
o-Xylene	22.6		0.495	mg/Kg		03/07/25 12:21	03/09/25 10:56	250
Xylenes, Total	75.3		0.990	mg/Kg		03/07/25 12:21	03/09/25 10:56	250

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	147	S1+	70 - 130	03/07/25 12:21	03/09/25 10:56	250
1,4-Difluorobenzene (Surr)	89		70 - 130	03/07/25 12:21	03/09/25 10:56	250

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	147		0.990	mg/Kg			03/09/25 10:56	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	13000		999	mg/Kg			03/07/25 02:37	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	4820		999	mg/Kg		03/06/25 19:57	03/07/25 02:37	20
Diesel Range Organics (Over C10-C28)	8140		999	mg/Kg		03/06/25 19:57	03/07/25 02:37	20
Oil Range Organics (Over C28-C36)	<999	U	999	mg/Kg		03/06/25 19:57	03/07/25 02:37	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	237	S1+	70 - 130	03/06/25 19:57	03/07/25 02:37	20
o-Terphenyl	265	S1+	70 - 130	03/06/25 19:57	03/07/25 02:37	20

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.1		9.92	mg/Kg			03/10/25 11:46	1

**Client Sample ID: SS02**

**Lab Sample ID: 890-7774-2**

Date Collected: 03/05/25 10:55

Matrix: Solid

Date Received: 03/05/25 16:41

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.497	U	0.497	mg/Kg		03/07/25 12:21	03/09/25 11:17	250
Toluene	7.45		0.497	mg/Kg		03/07/25 12:21	03/09/25 11:17	250
Ethylbenzene	8.90		0.497	mg/Kg		03/07/25 12:21	03/09/25 11:17	250
m-Xylene & p-Xylene	12.2		0.994	mg/Kg		03/07/25 12:21	03/09/25 11:17	250
o-Xylene	3.77		0.497	mg/Kg		03/07/25 12:21	03/09/25 11:17	250
Xylenes, Total	16.0		0.994	mg/Kg		03/07/25 12:21	03/09/25 11:17	250

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	03/07/25 12:21	03/09/25 11:17	250
1,4-Difluorobenzene (Surr)	88		70 - 130	03/07/25 12:21	03/09/25 11:17	250

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### Client Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-7774-1  
SDG: 07A1988176

**Client Sample ID: SS02**

**Lab Sample ID: 890-7774-2**

Date Collected: 03/05/25 10:55

Matrix: Solid

Date Received: 03/05/25 16:41

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	32.3		0.994	mg/Kg			03/09/25 11:17	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	8150		996	mg/Kg			03/07/25 02:52	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1780		996	mg/Kg		03/06/25 19:57	03/07/25 02:52	20
Diesel Range Organics (Over C10-C28)	6370		996	mg/Kg		03/06/25 19:57	03/07/25 02:52	20
Oil Range Organics (Over C28-C36)	<996	U	996	mg/Kg		03/06/25 19:57	03/07/25 02:52	20
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	155	S1+	70 - 130			03/06/25 19:57	03/07/25 02:52	20
o-Terphenyl	224	S1+	70 - 130			03/06/25 19:57	03/07/25 02:52	20

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.4		10.0	mg/Kg			03/10/25 11:53	1

**Client Sample ID: SS02A**

**Lab Sample ID: 890-7774-3**

Date Collected: 03/05/25 11:55

Matrix: Solid

Date Received: 03/05/25 16:41

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0992	U	0.0992	mg/Kg		03/07/25 12:21	03/09/25 11:37	50
Toluene	0.106		0.0992	mg/Kg		03/07/25 12:21	03/09/25 11:37	50
Ethylbenzene	0.187		0.0992	mg/Kg		03/07/25 12:21	03/09/25 11:37	50
m-Xylene & p-Xylene	0.461		0.198	mg/Kg		03/07/25 12:21	03/09/25 11:37	50
o-Xylene	0.385		0.0992	mg/Kg		03/07/25 12:21	03/09/25 11:37	50
Xylenes, Total	0.846		0.198	mg/Kg		03/07/25 12:21	03/09/25 11:37	50
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	103		70 - 130			03/07/25 12:21	03/09/25 11:37	50
1,4-Difluorobenzene (Surr)	79		70 - 130			03/07/25 12:21	03/09/25 11:37	50

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	1.14		0.198	mg/Kg			03/09/25 11:37	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	459		50.5	mg/Kg			03/07/25 12:00	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		03/07/25 11:57	03/07/25 12:00	1
Diesel Range Organics (Over C10-C28)	459		50.5	mg/Kg		03/07/25 11:57	03/07/25 12:00	1

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### Client Sample Results

Client: Ensolum  
 Project/Site: State D A CTB

Job ID: 890-7774-1  
 SDG: 07A1988176

**Client Sample ID: SS02A**

**Lab Sample ID: 890-7774-3**

Date Collected: 03/05/25 11:55

Matrix: Solid

Date Received: 03/05/25 16:41

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		03/07/25 11:57	03/07/25 12:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130			03/07/25 11:57	03/07/25 12:00	1
o-Terphenyl	114		70 - 130			03/07/25 11:57	03/07/25 12:00	1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.2		10.1	mg/Kg			03/10/25 11:59	1

## Surrogate Summary

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-7774-1  
SDG: 07A1988176

## Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
880-55325-A-1-B MS	Matrix Spike	93	106
880-55325-A-1-C MSD	Matrix Spike Duplicate	104	102
890-7774-1	SS01	147 S1+	89
890-7774-2	SS02	88	88
890-7774-3	SS02A	103	79
LCS 880-104764/1-A	Lab Control Sample	97	103
LCSD 880-104764/2-A	Lab Control Sample Dup	105	103
MB 880-104764/5-A	Method Blank	91	89
MB 880-104801/5-A	Method Blank	91	90

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)  
DFBZ = 1,4-Difluorobenzene (Surr)

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
880-55308-A-1-F MS	Matrix Spike	92	85
880-55308-A-1-G MSD	Matrix Spike Duplicate	95	89
890-7774-1	SS01	237 S1+	265 S1+
890-7774-2	SS02	155 S1+	224 S1+
890-7774-3	SS02A	117	114
890-7778-A-26-B MS	Matrix Spike	103	100
890-7778-A-26-C MSD	Matrix Spike Duplicate	114	100
LCS 880-104677/2-A	Lab Control Sample	122	109
LCS 880-104680/2-A	Lab Control Sample	79	82
LCSD 880-104677/3-A	Lab Control Sample Dup	125	111
LCSD 880-104680/3-A	Lab Control Sample Dup	77	79
MB 880-104677/1-A	Method Blank	91	83
MB 880-104680/1-A	Method Blank	107	98

**Surrogate Legend**

1CO = 1-Chlorooctane  
OTPH = o-Terphenyl

### QC Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-7774-1  
SDG: 07A1988176

#### Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-104764/5-A  
Matrix: Solid  
Analysis Batch: 104646

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 104764

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/07/25 12:21	03/09/25 08:11	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/07/25 12:21	03/09/25 08:11	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/07/25 12:21	03/09/25 08:11	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/07/25 12:21	03/09/25 08:11	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/07/25 12:21	03/09/25 08:11	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/07/25 12:21	03/09/25 08:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130	03/07/25 12:21	03/09/25 08:11	1
1,4-Difluorobenzene (Surr)	89		70 - 130	03/07/25 12:21	03/09/25 08:11	1

Lab Sample ID: LCS 880-104764/1-A  
Matrix: Solid  
Analysis Batch: 104646

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 104764

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1110		mg/Kg		111	70 - 130
Toluene	0.100	0.1133		mg/Kg		113	70 - 130
Ethylbenzene	0.100	0.1090		mg/Kg		109	70 - 130
m-Xylene & p-Xylene	0.200	0.1964		mg/Kg		98	70 - 130
o-Xylene	0.100	0.1059		mg/Kg		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: LCSD 880-104764/2-A  
Matrix: Solid  
Analysis Batch: 104646

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 104764

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1113		mg/Kg		111	70 - 130	0	35
Toluene	0.100	0.1193		mg/Kg		119	70 - 130	5	35
Ethylbenzene	0.100	0.1134		mg/Kg		113	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.2012		mg/Kg		101	70 - 130	2	35
o-Xylene	0.100	0.1090		mg/Kg		109	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: 880-55325-A-1-B MS  
Matrix: Solid  
Analysis Batch: 104646

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 104764

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.1119		mg/Kg		112	70 - 130
Toluene	<0.00200	U	0.100	0.1041		mg/Kg		104	70 - 130

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### QC Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-7774-1  
SDG: 07A1988176

#### Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-55325-A-1-B MS

Client Sample ID: Matrix Spike

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 104646

Prep Batch: 104764

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
Ethylbenzene	<0.00200	U	0.100	0.09236		mg/Kg		92	70 - 130	
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1610		mg/Kg		81	70 - 130	
o-Xylene	<0.00200	U	0.100	0.08366		mg/Kg		84	70 - 130	

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: 880-55325-A-1-C MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 104646

Prep Batch: 104764

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	Limits	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier						Limit	
Benzene	<0.00200	U	0.100	0.1048		mg/Kg		105	70 - 130	6	35	
Toluene	<0.00200	U	0.100	0.1092		mg/Kg		109	70 - 130	5	35	
Ethylbenzene	<0.00200	U	0.100	0.1003		mg/Kg		100	70 - 130	8	35	
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1798		mg/Kg		90	70 - 130	11	35	
o-Xylene	<0.00200	U	0.100	0.09123		mg/Kg		91	70 - 130	9	35	

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: MB 880-104801/5-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 104646

Prep Batch: 104801

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		03/08/25 10:49	03/08/25 20:11	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/08/25 10:49	03/08/25 20:11	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/08/25 10:49	03/08/25 20:11	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/08/25 10:49	03/08/25 20:11	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/08/25 10:49	03/08/25 20:11	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/08/25 10:49	03/08/25 20:11	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	91		70 - 130	03/08/25 10:49	03/08/25 20:11	1
1,4-Difluorobenzene (Surr)	90		70 - 130	03/08/25 10:49	03/08/25 20:11	1

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-104677/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 104594

Prep Batch: 104677

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/06/25 19:56	03/07/25 00:03	1

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### QC Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-7774-1  
SDG: 07A1988176

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-104677/1-A  
Matrix: Solid  
Analysis Batch: 104594

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 104677

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/06/25 19:56	03/07/25 00:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/06/25 19:56	03/07/25 00:03	1
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
1-Chlorooctane	91		70 - 130			03/06/25 19:56	03/07/25 00:03	1
o-Terphenyl	83		70 - 130			03/06/25 19:56	03/07/25 00:03	1

Lab Sample ID: LCS 880-104677/2-A  
Matrix: Solid  
Analysis Batch: 104594

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 104677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (Over C10-C28)	1000	1159		mg/Kg		116	70 - 130
Surrogate	LCS LCS		Limits				%Rec
	%Recovery	Qualifier					
1-Chlorooctane	122		70 - 130				
o-Terphenyl	109		70 - 130				

Lab Sample ID: LCSD 880-104677/3-A  
Matrix: Solid  
Analysis Batch: 104594

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 104677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	
								RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1223		mg/Kg		122	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	1000	1189		mg/Kg		119	70 - 130	2	20
Surrogate	LCSD LCSD		Limits			%Rec	%Rec		
	%Recovery	Qualifier							
1-Chlorooctane	125		70 - 130						
o-Terphenyl	111		70 - 130						

Lab Sample ID: 880-55308-A-1-F MS  
Matrix: Solid  
Analysis Batch: 104594

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 104677

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (Over C10-C28)	<50.0	U	994	773.8		mg/Kg		78	70 - 130
Surrogate	MS MS		Limits					%Rec	%Rec
	%Recovery	Qualifier							
1-Chlorooctane	92		70 - 130						
o-Terphenyl	85		70 - 130						

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### QC Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-7774-1  
SDG: 07A1988176

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-55308-A-1-G MSD  
Matrix: Solid  
Analysis Batch: 104594

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 104677

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	994	814.1		mg/Kg		82	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U	994	806.7		mg/Kg		81	70 - 130	4	20
Surrogate	MSD	MSD	Limits								
	%Recovery	Qualifier	Limits								
1-Chlorooctane	95		70 - 130								
o-Terphenyl	89		70 - 130								

Lab Sample ID: MB 880-104680/1-A  
Matrix: Solid  
Analysis Batch: 104612

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 104680

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac	
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/06/25 19:57	03/07/25 01:15	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/06/25 19:57	03/07/25 01:15	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/06/25 19:57	03/07/25 01:15	1	
Surrogate	MB	MB	Limits		Prepared	Analyzed	Dil Fac		
	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac		
1-Chlorooctane	107		70 - 130		03/06/25 19:57	03/07/25 01:15	1		
o-Terphenyl	98		70 - 130		03/06/25 19:57	03/07/25 01:15	1		

Lab Sample ID: LCS 880-104680/2-A  
Matrix: Solid  
Analysis Batch: 104612

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 104680

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec	RPD	
							Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1076		mg/Kg		108	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	1072		mg/Kg		107	70 - 130		
Surrogate	LCS	LCS	Limits						
	%Recovery	Qualifier	Limits						
1-Chlorooctane	79		70 - 130						
o-Terphenyl	82		70 - 130						

Lab Sample ID: LCSD 880-104680/3-A  
Matrix: Solid  
Analysis Batch: 104612

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 104680

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD
							Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1032		mg/Kg		103	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	1001		mg/Kg		100	70 - 130	7	20

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### QC Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-7774-1  
SDG: 07A1988176

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-104680/3-A  
Matrix: Solid  
Analysis Batch: 104612

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 104680

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	77		70 - 130
o-Terphenyl	79		70 - 130

Lab Sample ID: 890-7778-A-26-B MS  
Matrix: Solid  
Analysis Batch: 104612

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 104680

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	995	759.5		mg/Kg		76		70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	995	719.4		mg/Kg		72		70 - 130

Surrogate	MS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	103		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: 890-7778-A-26-C MSD  
Matrix: Solid  
Analysis Batch: 104612

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 104680

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	Limits	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier						RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	995	733.2		mg/Kg		74		70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.9	U	995	692.4		mg/Kg		70		70 - 130	4	20

Surrogate	MSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	114		70 - 130
o-Terphenyl	100		70 - 130

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-104808/1-A  
Matrix: Solid  
Analysis Batch: 104836

Client Sample ID: Method Blank  
Prep Type: Soluble

Analyte	MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Chloride	<10.0	U	10.0	mg/Kg			03/10/25 08:55	1

Lab Sample ID: LCS 880-104808/2-A  
Matrix: Solid  
Analysis Batch: 104836

Client Sample ID: Lab Control Sample  
Prep Type: Soluble

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec	Limits
		Result	Qualifier					
Chloride	250	255.0		mg/Kg		102		90 - 110

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### QC Sample Results

Client: Ensolum  
 Project/Site: State D A CTB

Job ID: 890-7774-1  
 SDG: 07A1988176

**Method: 300.0 - Anions, Ion Chromatography (Continued)**

**Lab Sample ID: LCSD 880-104808/3-A**  
**Matrix: Solid**  
**Analysis Batch: 104836**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Soluble**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	248.3		mg/Kg		99	90 - 110	3	20

**Lab Sample ID: 880-55382-A-5-B MS**  
**Matrix: Solid**  
**Analysis Batch: 104836**

**Client Sample ID: Matrix Spike**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	2590	F1	2500	5649	F1	mg/Kg		122	90 - 110

**Lab Sample ID: 880-55382-A-5-C MSD**  
**Matrix: Solid**  
**Analysis Batch: 104836**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2590	F1	2500	5671	F1	mg/Kg		123	90 - 110	0	20

## QC Association Summary

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-7774-1  
SDG: 07A1988176

## GC VOA

## Analysis Batch: 104646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7774-1	SS01	Total/NA	Solid	8021B	104764
890-7774-2	SS02	Total/NA	Solid	8021B	104764
890-7774-3	SS02A	Total/NA	Solid	8021B	104764
MB 880-104764/5-A	Method Blank	Total/NA	Solid	8021B	104764
MB 880-104801/5-A	Method Blank	Total/NA	Solid	8021B	104801
LCS 880-104764/1-A	Lab Control Sample	Total/NA	Solid	8021B	104764
LCSD 880-104764/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	104764
880-55325-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	104764
880-55325-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	104764

## Prep Batch: 104764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7774-1	SS01	Total/NA	Solid	5035	
890-7774-2	SS02	Total/NA	Solid	5035	
890-7774-3	SS02A	Total/NA	Solid	5035	
MB 880-104764/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-104764/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-104764/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-55325-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-55325-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Prep Batch: 104801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-104801/5-A	Method Blank	Total/NA	Solid	5035	

## Analysis Batch: 104899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7774-1	SS01	Total/NA	Solid	Total BTEX	
890-7774-2	SS02	Total/NA	Solid	Total BTEX	
890-7774-3	SS02A	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Analysis Batch: 104594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7774-1	SS01	Total/NA	Solid	8015B NM	104677
890-7774-2	SS02	Total/NA	Solid	8015B NM	104677
MB 880-104677/1-A	Method Blank	Total/NA	Solid	8015B NM	104677
LCS 880-104677/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	104677
LCSD 880-104677/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	104677
880-55308-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	104677
880-55308-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	104677

## Analysis Batch: 104612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7774-3	SS02A	Total/NA	Solid	8015B NM	104680
MB 880-104680/1-A	Method Blank	Total/NA	Solid	8015B NM	104680
LCS 880-104680/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	104680
LCSD 880-104680/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	104680
890-7778-A-26-B MS	Matrix Spike	Total/NA	Solid	8015B NM	104680
890-7778-A-26-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	104680

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## QC Association Summary

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-7774-1  
SDG: 07A1988176

## GC Semi VOA

## Prep Batch: 104677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7774-1	SS01	Total/NA	Solid	8015NM Prep	
890-7774-2	SS02	Total/NA	Solid	8015NM Prep	
MB 880-104677/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-104677/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-104677/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-55308-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-55308-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Prep Batch: 104680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7774-3	SS02A	Total/NA	Solid	8015NM Prep	
MB 880-104680/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-104680/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-104680/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-7778-A-26-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-7778-A-26-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 104723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7774-1	SS01	Total/NA	Solid	8015 NM	
890-7774-2	SS02	Total/NA	Solid	8015 NM	
890-7774-3	SS02A	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 104808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7774-1	SS01	Soluble	Solid	DI Leach	
890-7774-2	SS02	Soluble	Solid	DI Leach	
890-7774-3	SS02A	Soluble	Solid	DI Leach	
MB 880-104808/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-104808/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-104808/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-55382-A-5-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-55382-A-5-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

## Analysis Batch: 104836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7774-1	SS01	Soluble	Solid	300.0	104808
890-7774-2	SS02	Soluble	Solid	300.0	104808
890-7774-3	SS02A	Soluble	Solid	300.0	104808
MB 880-104808/1-A	Method Blank	Soluble	Solid	300.0	104808
LCS 880-104808/2-A	Lab Control Sample	Soluble	Solid	300.0	104808
LCSD 880-104808/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	104808
880-55382-A-5-B MS	Matrix Spike	Soluble	Solid	300.0	104808
880-55382-A-5-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	104808

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### Lab Chronicle

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-7774-1  
SDG: 07A1988176

**Client Sample ID: SS01**

**Lab Sample ID: 890-7774-1**

Date Collected: 03/05/25 10:53

Matrix: Solid

Date Received: 03/05/25 16:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	104764	03/07/25 12:21	MNR	EET MID
Total/NA	Analysis	8021B		250	5 mL	5 mL	104646	03/09/25 10:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			104899	03/09/25 10:56	AJ	EET MID
Total/NA	Analysis	8015 NM		1			104723	03/07/25 02:37	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	104677	03/06/25 19:57	EL	EET MID
Total/NA	Analysis	8015B NM		20	1 uL	1 uL	104594	03/07/25 02:37	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	104808	03/09/25 09:08	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	104836	03/10/25 11:46	CH	EET MID

**Client Sample ID: SS02**

**Lab Sample ID: 890-7774-2**

Date Collected: 03/05/25 10:55

Matrix: Solid

Date Received: 03/05/25 16:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	104764	03/07/25 12:21	MNR	EET MID
Total/NA	Analysis	8021B		250	5 mL	5 mL	104646	03/09/25 11:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			104899	03/09/25 11:17	AJ	EET MID
Total/NA	Analysis	8015 NM		1			104723	03/07/25 02:52	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	104677	03/06/25 19:57	EL	EET MID
Total/NA	Analysis	8015B NM		20	1 uL	1 uL	104594	03/07/25 02:52	TKC	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	104808	03/09/25 09:08	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	104836	03/10/25 11:53	CH	EET MID

**Client Sample ID: SS02A**

**Lab Sample ID: 890-7774-3**

Date Collected: 03/05/25 11:55

Matrix: Solid

Date Received: 03/05/25 16:41

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	104764	03/07/25 12:21	MNR	EET MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	104646	03/09/25 11:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			104899	03/09/25 11:37	AJ	EET MID
Total/NA	Analysis	8015 NM		1			104723	03/07/25 12:00	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	104680	03/07/25 11:57	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	104612	03/07/25 12:00	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	104808	03/09/25 09:08	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	104836	03/10/25 11:59	CH	EET MID

**Laboratory References:**

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

### Accreditation/Certification Summary

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-7774-1  
SDG: 07A1988176

#### Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

### Method Summary

Client: Ensolum  
 Project/Site: State D A CTB

Job ID: 890-7774-1  
 SDG: 07A1988176

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

**Protocol References:**

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Laboratory References:**

- EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440



### Sample Summary

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-7774-1  
SDG: 07A1988176

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-7774-1	SS01	Solid	03/05/25 10:53	03/05/25 16:41
890-7774-2	SS02	Solid	03/05/25 10:55	03/05/25 16:41
890-7774-3	SS02A	Solid	03/05/25 11:55	03/05/25 16:41

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Environment Testing  
Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (339) 704-5440, San Antonio, TX (210) 509-3334  
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No: \_\_\_\_\_

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Page 1 of 1

Project Manager: ~~Facema-Morrissey~~ <sup>WVS</sup> Fatima Smith  
 Company Name: Ensolum LLC  
 Address: 3122 National Parks Hwy  
 City, State ZIP: Carlsbad, NM 88220  
 Phone: 392 257 8997-515 725 1196  
 Email: ~~fmorrissey@ensolum.com~~ <sup>WVS</sup> fsmith@ensolum.com

Bill to: (if different)  
 Company Name: Hilcorp  
 Address:  
 City, State ZIP:

Program: UST  
 State of Project Reporting: Lew  
 Deliverables: 1

890-7774 Chain of Custody

Project Name: STATE D A CTB  
 Project Number: 07A1948176  
 Project Location: 324165720-103173841  
 Sample Name: JOYUDA ~~Boxley~~  
 PO #: \_\_\_\_\_

Turn-Around:  Routine  Rush  
 Date Date: 2/11/25

Temp Blank:  Yes  No  
 Thermometer ID: 7120087  
 Cooler Custody Seals: Yes No  N/A  
 Correction Factor: -0.2  
 Sample Custody Seals: Yes No  N/A  
 Temperature Reading: 6.0  
 Corrected Temperature: 5.8

Parameters: Chloride EPA300, TPM 8015, BTEX 8021

Preservative Codes: None: NO, DI Water: H2O, Cool: COOL, MeOH: Me, HCL: HCL, HNO3: HN, H2SO4: H2, NaOH: Na, H3PO4: HP, NaHSO4: NABIS, Na2S2O3: NaSO3, Zn Acetate: NaOH: Zn, NaOH+Ascorbic Acid: SAPP

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Analysis Request	Preservative Codes	Sample Comments
SS01	Soil	3.5.25	1053	0.5'	G	1	Chloride EPA300		
SS02	Soil	3.5.25	1055	0.5'	G	1	TPM 8015		
SS02A	Soil	3.5.25	1155	9'	G	1	BTEX 8021		

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn  
 Circle Method(s) and Metal(s) to be analyzed: TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$3 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	6/11/25			

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**Eurofins Carlsbad**  
 1089 N Canal St.  
 Carlsbad, NM 88220  
 Phone: 575-988-3199 Fax: 575-988-3199

**Chain of Custody Record**



Environment Testing

**Client Information (Sub Contract Lab)**

Client Contact: N/A  
 Shipping/Receiving: N/A  
 Company: Eurofins Environment Testing South Cent  
 Address: 1211 W. Florida Ave.  
 City: Midland  
 State, Zip: TX, 79701  
 Phone: 432-704-5440(Tel)  
 Email: N/A  
 Project Name: state D A CTB  
 Site: N/A

Due Date Requested: 3/11/2025  
 TAT Requested (days): N/A  
 PO #: N/A  
 WO #: N/A  
 Project #: 89000102  
 SSCOW#: N/A

Lab PM: Kramer, Jessica  
 E-Mail: Jessica.Kramer@et.eurofins.com  
 Carrier Tracking No(s): N/A  
 State of Origin: New Mexico  
 Accreditations Required (See note): NELAP - Texas  
 COC No: 890-4694-1  
 Page: Page 1 of 1  
 Job #: 890-7774-1  
 Preservation Codes:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=overstabil, ST=stabil, AA=As) (ST=Stabil, AA=As)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of containers	Special Instructions/Note:
SS01 (890-7774-1)	3/5/25	10:53	G	Solid	X	X	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	1	
SS02 (890-7774-2)	3/5/25	10:55	G	Solid	X	X	8015MOD_Calc	1	
SS02A (890-7774-3)	3/5/25	11:55	G	Solid	X	X	300_ORGFM_28D/DI_LEACH Chloride	1	
					X	X	8021B/5035FP_Calc (MOD) BTEX	1	
					X	X	Total_BTEX_GCV		

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

**Possible Hazard Identification**

Unconfirmed  
 Deliverable Requested: I, II, III, IV, Other (Specify) Primary Deliverable Rank: 2  
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months  
 Special Instructions/QC Requirements:

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Method of Shipment: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: 3/6 1630 Company: \_\_\_\_\_ Received by: \_\_\_\_\_ Date/Time: 3/7/25 0800 Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_ Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Custody Seals Intact:  Yes  No  
 Custody Seal No.: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks:

### Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-7774-1

SDG Number: 07A1988176

**Login Number: 7774**

**List Number: 1**

**Creator: Lopez, Abraham**

**List Source: Eurofins Carlsbad**

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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### Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-7774-1

SDG Number: 07A1988176

**Login Number: 7774**

**List Number: 2**

**Creator: Laing, Edmundo**

**List Source: Eurofins Midland**

**List Creation: 03/06/25 08:45 PM**

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Fatima Smith  
 Ensolum  
 601 N. Marienfeld St.  
 Suite 400  
 Midland, Texas 79701  
 Generated 5/9/2025 1:44:16 PM

## JOB DESCRIPTION

State D A CTB  
 07A1988176

## JOB NUMBER

890-8134-1

Eurofins Carlsbad  
 1089 N Canal St.  
 Carlsbad NM 88220



# Eurofins Carlsbad

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

## Authorization



Generated  
5/9/2025 1:44:16 PM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440

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Client: Ensolum  
Project/Site: State D A CTB

Laboratory Job ID: 890-8134-1  
SDG: 07A1988176

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## Definitions/Glossary

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-8134-1  
SDG: 07A1988176

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: Ensolum  
Project: State D A CTB

Job ID: 890-8134-1

**Job ID: 890-8134-1**

**Eurofins Carlsbad**

### Job Narrative 890-8134-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

#### Receipt

The samples were received on 5/7/2025 3:11 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.8°C.

#### Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BH01 (890-8134-1), BH01A (890-8134-2), BH02 (890-8134-3), BH02A (890-8134-4), BH03 (890-8134-5) and BH03A (890-8134-6).

#### GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: (CCV 880-109696/20). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### Diesel Range Organics

Method 8015MOD\_NM: The surrogate recovery for the blank associated with preparation batch 880-109662 and analytical batch 880-109714 was outside the upper control limits.

Method 8015MOD\_NM: The method blank for preparation batch 880-109662 and analytical batch 880-109714 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Carlsbad

### Client Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-8134-1  
SDG: 07A1988176

**Client Sample ID: BH01**

**Lab Sample ID: 890-8134-1**

Date Collected: 05/07/25 09:58

Matrix: Solid

Date Received: 05/07/25 15:11

Sample Depth: 0.5

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/07/25 15:35	05/08/25 18:03	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/07/25 15:35	05/08/25 18:03	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/07/25 15:35	05/08/25 18:03	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		05/07/25 15:35	05/08/25 18:03	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/07/25 15:35	05/08/25 18:03	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/07/25 15:35	05/08/25 18:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130	05/07/25 15:35	05/08/25 18:03	1
1,4-Difluorobenzene (Surr)	84		70 - 130	05/07/25 15:35	05/08/25 18:03	1

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			05/08/25 18:03	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			05/08/25 23:11	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1	mg/Kg		05/07/25 14:33	05/08/25 23:11	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg		05/07/25 14:33	05/08/25 23:11	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		05/07/25 14:33	05/08/25 23:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	05/07/25 14:33	05/08/25 23:11	1
o-Terphenyl	87		70 - 130	05/07/25 14:33	05/08/25 23:11	1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	99.0		9.96	mg/Kg			05/08/25 13:01	1

**Client Sample ID: BH01A**

**Lab Sample ID: 890-8134-2**

Date Collected: 05/07/25 10:52

Matrix: Solid

Date Received: 05/07/25 15:11

Sample Depth: 5

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/07/25 15:35	05/08/25 18:23	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/07/25 15:35	05/08/25 18:23	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/07/25 15:35	05/08/25 18:23	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		05/07/25 15:35	05/08/25 18:23	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/07/25 15:35	05/08/25 18:23	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		05/07/25 15:35	05/08/25 18:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130	05/07/25 15:35	05/08/25 18:23	1

Eurofins Carlsbad

### Client Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-8134-1  
SDG: 07A1988176

**Client Sample ID: BH01A**

**Lab Sample ID: 890-8134-2**

Date Collected: 05/07/25 10:52

Matrix: Solid

Date Received: 05/07/25 15:11

Sample Depth: 5

**Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	84		70 - 130	05/07/25 15:35	05/08/25 18:23	1

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			05/08/25 18:23	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			05/08/25 23:26	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2	mg/Kg		05/07/25 14:33	05/08/25 23:26	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		05/07/25 14:33	05/08/25 23:26	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		05/07/25 14:33	05/08/25 23:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	05/07/25 14:33	05/08/25 23:26	1
o-Terphenyl	81		70 - 130	05/07/25 14:33	05/08/25 23:26	1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	174		9.92	mg/Kg			05/08/25 13:08	1

**Client Sample ID: BH02**

**Lab Sample ID: 890-8134-3**

Date Collected: 05/07/25 10:08

Matrix: Solid

Date Received: 05/07/25 15:11

Sample Depth: 0.5

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		05/07/25 15:35	05/08/25 18:44	1
Toluene	<0.00201	U	0.00201	mg/Kg		05/07/25 15:35	05/08/25 18:44	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		05/07/25 15:35	05/08/25 18:44	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		05/07/25 15:35	05/08/25 18:44	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		05/07/25 15:35	05/08/25 18:44	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		05/07/25 15:35	05/08/25 18:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	05/07/25 15:35	05/08/25 18:44	1
1,4-Difluorobenzene (Surr)	86		70 - 130	05/07/25 15:35	05/08/25 18:44	1

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			05/08/25 18:44	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			05/08/25 23:42	1

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### Client Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-8134-1  
SDG: 07A1988176

**Client Sample ID: BH02**

**Lab Sample ID: 890-8134-3**

Date Collected: 05/07/25 10:08

Matrix: Solid

Date Received: 05/07/25 15:11

Sample Depth: 0.5

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7	mg/Kg		05/07/25 14:33	05/08/25 23:42	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		05/07/25 14:33	05/08/25 23:42	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		05/07/25 14:33	05/08/25 23:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	77		70 - 130			05/07/25 14:33	05/08/25 23:42	1
o-Terphenyl	73		70 - 130			05/07/25 14:33	05/08/25 23:42	1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	83.4		9.94	mg/Kg			05/08/25 13:15	1

**Client Sample ID: BH02A**

**Lab Sample ID: 890-8134-4**

Date Collected: 05/07/25 11:01

Matrix: Solid

Date Received: 05/07/25 15:11

Sample Depth: 5

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		05/07/25 15:35	05/08/25 19:04	1
Toluene	<0.00199	U	0.00199	mg/Kg		05/07/25 15:35	05/08/25 19:04	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		05/07/25 15:35	05/08/25 19:04	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		05/07/25 15:35	05/08/25 19:04	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		05/07/25 15:35	05/08/25 19:04	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		05/07/25 15:35	05/08/25 19:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130			05/07/25 15:35	05/08/25 19:04	1
1,4-Difluorobenzene (Surr)	83		70 - 130			05/07/25 15:35	05/08/25 19:04	1

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			05/08/25 19:04	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			05/08/25 23:56	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		05/07/25 14:33	05/08/25 23:56	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		05/07/25 14:33	05/08/25 23:56	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		05/07/25 14:33	05/08/25 23:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			05/07/25 14:33	05/08/25 23:56	1
o-Terphenyl	78		70 - 130			05/07/25 14:33	05/08/25 23:56	1

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### Client Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-8134-1  
SDG: 07A1988176

**Client Sample ID: BH02A**

**Lab Sample ID: 890-8134-4**

Date Collected: 05/07/25 11:01

Matrix: Solid

Date Received: 05/07/25 15:11

Sample Depth: 5

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	101		9.90	mg/Kg			05/08/25 13:23	1

**Client Sample ID: BH03**

**Lab Sample ID: 890-8134-5**

Date Collected: 05/07/25 10:21

Matrix: Solid

Date Received: 05/07/25 15:11

Sample Depth: 0.5

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		05/07/25 15:35	05/08/25 19:25	1
Toluene	<0.00198	U	0.00198	mg/Kg		05/07/25 15:35	05/08/25 19:25	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		05/07/25 15:35	05/08/25 19:25	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		05/07/25 15:35	05/08/25 19:25	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		05/07/25 15:35	05/08/25 19:25	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		05/07/25 15:35	05/08/25 19:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130			05/07/25 15:35	05/08/25 19:25	1
1,4-Difluorobenzene (Surr)	83		70 - 130			05/07/25 15:35	05/08/25 19:25	1

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			05/08/25 19:25	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			05/09/25 00:27	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		05/07/25 14:33	05/09/25 00:27	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		05/07/25 14:33	05/09/25 00:27	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		05/07/25 14:33	05/09/25 00:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130			05/07/25 14:33	05/09/25 00:27	1
o-Terphenyl	75		70 - 130			05/07/25 14:33	05/09/25 00:27	1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	98.6		10.1	mg/Kg			05/08/25 13:30	1

### Client Sample Results

Client: Ensolum  
 Project/Site: State D A CTB

Job ID: 890-8134-1  
 SDG: 07A1988176

**Client Sample ID: BH03A**

**Lab Sample ID: 890-8134-6**

Date Collected: 05/07/25 11:14

Matrix: Solid

Date Received: 05/07/25 15:11

Sample Depth: 6

**Method: SW846 8021B - Volatile Organic Compounds (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		05/07/25 15:35	05/08/25 19:45	1
Toluene	<0.00201	U	0.00201	mg/Kg		05/07/25 15:35	05/08/25 19:45	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		05/07/25 15:35	05/08/25 19:45	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		05/07/25 15:35	05/08/25 19:45	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		05/07/25 15:35	05/08/25 19:45	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		05/07/25 15:35	05/08/25 19:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	05/07/25 15:35	05/08/25 19:45	1
1,4-Difluorobenzene (Surr)	84		70 - 130	05/07/25 15:35	05/08/25 19:45	1

**Method: TAL SOP Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			05/08/25 19:45	1

**Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			05/09/25 00:43	1

**Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		05/07/25 14:33	05/09/25 00:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/07/25 14:33	05/09/25 00:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/07/25 14:33	05/09/25 00:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130	05/07/25 14:33	05/09/25 00:43	1
o-Terphenyl	79		70 - 130	05/07/25 14:33	05/09/25 00:43	1

**Method: EPA 300.0 - Anions, Ion Chromatography - Soluble**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	104		9.90	mg/Kg			05/08/25 13:38	1

### Surrogate Summary

Client: Ensolum  
 Project/Site: State D A CTB

Job ID: 890-8134-1  
 SDG: 07A1988176

**Method: 8021B - Volatile Organic Compounds (GC)**

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-57839-A-1-B MS	Matrix Spike	122	85
880-57839-A-1-C MSD	Matrix Spike Duplicate	117	89
890-8134-1	BH01	118	84
890-8134-2	BH01A	118	84
890-8134-3	BH02	109	86
890-8134-4	BH02A	119	83
890-8134-5	BH03	115	83
890-8134-6	BH03A	115	84
LCS 880-109665/1-A	Lab Control Sample	110	87
LCSD 880-109665/2-A	Lab Control Sample Dup	115	86
MB 880-109665/5-A	Method Blank	117	81

**Surrogate Legend**  
 BFB = 4-Bromofluorobenzene (Surr)  
 DFBZ = 1,4-Difluorobenzene (Surr)

**Method: 8015B NM - Diesel Range Organics (DRO) (GC)**

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-57839-A-8-B MS	Matrix Spike	99	87
880-57839-A-8-C MSD	Matrix Spike Duplicate	97	84
890-8134-1	BH01	96	87
890-8134-2	BH01A	91	81
890-8134-3	BH02	77	73
890-8134-4	BH02A	87	78
890-8134-5	BH03	84	75
890-8134-6	BH03A	88	79
LCS 880-109662/2-A	Lab Control Sample	96	82
LCSD 880-109662/3-A	Lab Control Sample Dup	100	84
MB 880-109662/1-A	Method Blank	139 S1+	126

**Surrogate Legend**  
 1CO = 1-Chlorooctane  
 OTPH = o-Terphenyl

### QC Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-8134-1  
SDG: 07A1988176

#### Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-109665/5-A  
Matrix: Solid  
Analysis Batch: 109696

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 109665

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/07/25 15:35	05/08/25 11:28	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/07/25 15:35	05/08/25 11:28	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/07/25 15:35	05/08/25 11:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		05/07/25 15:35	05/08/25 11:28	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/07/25 15:35	05/08/25 11:28	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/07/25 15:35	05/08/25 11:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130	05/07/25 15:35	05/08/25 11:28	1
1,4-Difluorobenzene (Surr)	81		70 - 130	05/07/25 15:35	05/08/25 11:28	1

Lab Sample ID: LCS 880-109665/1-A  
Matrix: Solid  
Analysis Batch: 109696

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 109665

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.07001		mg/Kg		70	70 - 130
Toluene	0.100	0.07894		mg/Kg		79	70 - 130
Ethylbenzene	0.100	0.08151		mg/Kg		82	70 - 130
m-Xylene & p-Xylene	0.200	0.1683		mg/Kg		84	70 - 130
o-Xylene	0.100	0.08077		mg/Kg		81	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	87		70 - 130

Lab Sample ID: LCSD 880-109665/2-A  
Matrix: Solid  
Analysis Batch: 109696

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 109665

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.07664		mg/Kg		77	70 - 130	9	35
Toluene	0.100	0.07897		mg/Kg		79	70 - 130	0	35
Ethylbenzene	0.100	0.08169		mg/Kg		82	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.1703		mg/Kg		85	70 - 130	1	35
o-Xylene	0.100	0.08185		mg/Kg		82	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	86		70 - 130

Lab Sample ID: 880-57839-A-1-B MS  
Matrix: Solid  
Analysis Batch: 109696

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 109665

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.08902		mg/Kg		89	70 - 130
Toluene	<0.00200	U	0.100	0.1008		mg/Kg		101	70 - 130

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### QC Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-8134-1  
SDG: 07A1988176

#### Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-57839-A-1-B MS

Client Sample ID: Matrix Spike

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 109696

Prep Batch: 109665

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier		Result	Qualifier				
Ethylbenzene	<0.00200	U	0.100	0.1066		mg/Kg		107	70 - 130
m-Xylene & p-Xylene	<0.00400	U	0.200	0.2140		mg/Kg		107	70 - 130
o-Xylene	<0.00200	U	0.100	0.1001		mg/Kg		100	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	122		70 - 130
1,4-Difluorobenzene (Surr)	85		70 - 130

Lab Sample ID: 880-57839-A-1-C MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 109696

Prep Batch: 109665

Analyte	Sample	Sample	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Benzene	<0.00200	U	0.100	0.09384		mg/Kg		94	70 - 130	5	35
Toluene	<0.00200	U	0.100	0.1044		mg/Kg		104	70 - 130	4	35
Ethylbenzene	<0.00200	U	0.100	0.1077		mg/Kg		108	70 - 130	1	35
m-Xylene & p-Xylene	<0.00400	U	0.200	0.2233		mg/Kg		112	70 - 130	4	35
o-Xylene	<0.00200	U	0.100	0.1051		mg/Kg		105	70 - 130	5	35

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	117		70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-109662/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 109714

Prep Batch: 109662

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		05/07/25 14:33	05/08/25 20:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/07/25 14:33	05/08/25 20:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/07/25 14:33	05/08/25 20:25	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	139	S1+	70 - 130	05/07/25 14:33	05/08/25 20:25	1
o-Terphenyl	126		70 - 130	05/07/25 14:33	05/08/25 20:25	1

Lab Sample ID: LCS 880-109662/2-A

Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 109714

Prep Batch: 109662

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	1000	883.8		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)	1000	891.7		mg/Kg		89	70 - 130

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### QC Sample Results

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-8134-1  
SDG: 07A1988176

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

**Lab Sample ID: LCS 880-109662/2-A**  
**Matrix: Solid**  
**Analysis Batch: 109714**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 109662**

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	96		70 - 130
o-Terphenyl	82		70 - 130

**Lab Sample ID: LCSD 880-109662/3-A**  
**Matrix: Solid**  
**Analysis Batch: 109714**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 109662**

Analyte	Spike Added	LCSD		Unit	D	%Rec	%Rec		RPD	Limit
		Result	Qualifier				Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	1000	929.6		mg/Kg		93	70 - 130	5		20
Diesel Range Organics (Over C10-C28)	1000	919.2		mg/Kg		92	70 - 130	3		20

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	100		70 - 130
o-Terphenyl	84		70 - 130

**Lab Sample ID: 880-57839-A-8-B MS**  
**Matrix: Solid**  
**Analysis Batch: 109714**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 109662**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec		RPD	Limit
				Result	Qualifier				Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	998	1197		mg/Kg		120	70 - 130			
Diesel Range Organics (Over C10-C28)	<50.1	U	998	1102		mg/Kg		108	70 - 130			

Surrogate	MS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	99		70 - 130
o-Terphenyl	87		70 - 130

**Lab Sample ID: 880-57839-A-8-C MSD**  
**Matrix: Solid**  
**Analysis Batch: 109714**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 109662**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec		RPD	Limit
				Result	Qualifier				Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	998	1154		mg/Kg		116	70 - 130	4		20
Diesel Range Organics (Over C10-C28)	<50.1	U	998	1103		mg/Kg		108	70 - 130	0		20

Surrogate	MSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	97		70 - 130
o-Terphenyl	84		70 - 130

### QC Sample Results

Client: Ensolum  
 Project/Site: State D A CTB

Job ID: 890-8134-1  
 SDG: 07A1988176

**Method: 300.0 - Anions, Ion Chromatography**

Lab Sample ID: MB 880-109694/1-A  
 Matrix: Solid  
 Analysis Batch: 109704

Client Sample ID: Method Blank  
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	mg/Kg			05/08/25 10:04	1

Lab Sample ID: LCS 880-109694/2-A  
 Matrix: Solid  
 Analysis Batch: 109704

Client Sample ID: Lab Control Sample  
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	264.0		mg/Kg		106	90 - 110

Lab Sample ID: LCSD 880-109694/3-A  
 Matrix: Solid  
 Analysis Batch: 109704

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	259.7		mg/Kg		104	90 - 110	2	20

Lab Sample ID: 880-57839-A-11-D MS  
 Matrix: Solid  
 Analysis Batch: 109704

Client Sample ID: Matrix Spike  
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	100		252	339.1		mg/Kg		95	90 - 110

Lab Sample ID: 880-57839-A-11-E MSD  
 Matrix: Solid  
 Analysis Batch: 109704

Client Sample ID: Matrix Spike Duplicate  
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	100		252	342.6		mg/Kg		96	90 - 110	1	20

### QC Association Summary

Client: Ensolum  
 Project/Site: State D A CTB

Job ID: 890-8134-1  
 SDG: 07A1988176

#### GC VOA

##### Prep Batch: 109665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8134-1	BH01	Total/NA	Solid	5035	
890-8134-2	BH01A	Total/NA	Solid	5035	
890-8134-3	BH02	Total/NA	Solid	5035	
890-8134-4	BH02A	Total/NA	Solid	5035	
890-8134-5	BH03	Total/NA	Solid	5035	
890-8134-6	BH03A	Total/NA	Solid	5035	
MB 880-109665/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-109665/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-109665/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-57839-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-57839-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

##### Analysis Batch: 109696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8134-1	BH01	Total/NA	Solid	8021B	109665
890-8134-2	BH01A	Total/NA	Solid	8021B	109665
890-8134-3	BH02	Total/NA	Solid	8021B	109665
890-8134-4	BH02A	Total/NA	Solid	8021B	109665
890-8134-5	BH03	Total/NA	Solid	8021B	109665
890-8134-6	BH03A	Total/NA	Solid	8021B	109665
MB 880-109665/5-A	Method Blank	Total/NA	Solid	8021B	109665
LCS 880-109665/1-A	Lab Control Sample	Total/NA	Solid	8021B	109665
LCSD 880-109665/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	109665
880-57839-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	109665
880-57839-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	109665

##### Analysis Batch: 109851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8134-1	BH01	Total/NA	Solid	Total BTEX	
890-8134-2	BH01A	Total/NA	Solid	Total BTEX	
890-8134-3	BH02	Total/NA	Solid	Total BTEX	
890-8134-4	BH02A	Total/NA	Solid	Total BTEX	
890-8134-5	BH03	Total/NA	Solid	Total BTEX	
890-8134-6	BH03A	Total/NA	Solid	Total BTEX	

#### GC Semi VOA

##### Prep Batch: 109662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8134-1	BH01	Total/NA	Solid	8015NM Prep	
890-8134-2	BH01A	Total/NA	Solid	8015NM Prep	
890-8134-3	BH02	Total/NA	Solid	8015NM Prep	
890-8134-4	BH02A	Total/NA	Solid	8015NM Prep	
890-8134-5	BH03	Total/NA	Solid	8015NM Prep	
890-8134-6	BH03A	Total/NA	Solid	8015NM Prep	
MB 880-109662/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-109662/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-109662/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-57839-A-8-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-57839-A-8-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Eurofins Carlsbad

## QC Association Summary

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-8134-1  
SDG: 07A1988176

## GC Semi VOA

## Analysis Batch: 109714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8134-1	BH01	Total/NA	Solid	8015B NM	109662
890-8134-2	BH01A	Total/NA	Solid	8015B NM	109662
890-8134-3	BH02	Total/NA	Solid	8015B NM	109662
890-8134-4	BH02A	Total/NA	Solid	8015B NM	109662
890-8134-5	BH03	Total/NA	Solid	8015B NM	109662
890-8134-6	BH03A	Total/NA	Solid	8015B NM	109662
MB 880-109662/1-A	Method Blank	Total/NA	Solid	8015B NM	109662
LCS 880-109662/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	109662
LCSD 880-109662/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	109662
880-57839-A-8-B MS	Matrix Spike	Total/NA	Solid	8015B NM	109662
880-57839-A-8-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	109662

## Analysis Batch: 109813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8134-1	BH01	Total/NA	Solid	8015 NM	
890-8134-2	BH01A	Total/NA	Solid	8015 NM	
890-8134-3	BH02	Total/NA	Solid	8015 NM	
890-8134-4	BH02A	Total/NA	Solid	8015 NM	
890-8134-5	BH03	Total/NA	Solid	8015 NM	
890-8134-6	BH03A	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 109694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8134-1	BH01	Soluble	Solid	DI Leach	
890-8134-2	BH01A	Soluble	Solid	DI Leach	
890-8134-3	BH02	Soluble	Solid	DI Leach	
890-8134-4	BH02A	Soluble	Solid	DI Leach	
890-8134-5	BH03	Soluble	Solid	DI Leach	
890-8134-6	BH03A	Soluble	Solid	DI Leach	
MB 880-109694/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-109694/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-109694/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-57839-A-11-D MS	Matrix Spike	Soluble	Solid	DI Leach	
880-57839-A-11-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

## Analysis Batch: 109704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8134-1	BH01	Soluble	Solid	300.0	109694
890-8134-2	BH01A	Soluble	Solid	300.0	109694
890-8134-3	BH02	Soluble	Solid	300.0	109694
890-8134-4	BH02A	Soluble	Solid	300.0	109694
890-8134-5	BH03	Soluble	Solid	300.0	109694
890-8134-6	BH03A	Soluble	Solid	300.0	109694
MB 880-109694/1-A	Method Blank	Soluble	Solid	300.0	109694
LCS 880-109694/2-A	Lab Control Sample	Soluble	Solid	300.0	109694
LCSD 880-109694/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	109694
880-57839-A-11-D MS	Matrix Spike	Soluble	Solid	300.0	109694
880-57839-A-11-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	109694

Eurofins Carlsbad

### Lab Chronicle

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-8134-1  
SDG: 07A1988176

**Client Sample ID: BH01**

**Lab Sample ID: 890-8134-1**

Date Collected: 05/07/25 09:58

Matrix: Solid

Date Received: 05/07/25 15:11

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	109665	05/07/25 15:35	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	109696	05/08/25 18:03	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			109851	05/08/25 18:03	SM	EET MID
Total/NA	Analysis	8015 NM		1			109813	05/08/25 23:11	SM	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10 mL	109662	05/07/25 14:33	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109714	05/08/25 23:11	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	109694	05/08/25 07:51	SA	EET MID
Soluble	Analysis	300.0		1			109704	05/08/25 13:01	CH	EET MID

**Client Sample ID: BH01A**

**Lab Sample ID: 890-8134-2**

Date Collected: 05/07/25 10:52

Matrix: Solid

Date Received: 05/07/25 15:11

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	109665	05/07/25 15:35	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	109696	05/08/25 18:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			109851	05/08/25 18:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			109813	05/08/25 23:26	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	109662	05/07/25 14:33	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109714	05/08/25 23:26	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	109694	05/08/25 07:51	SA	EET MID
Soluble	Analysis	300.0		1			109704	05/08/25 13:08	CH	EET MID

**Client Sample ID: BH02**

**Lab Sample ID: 890-8134-3**

Date Collected: 05/07/25 10:08

Matrix: Solid

Date Received: 05/07/25 15:11

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	109665	05/07/25 15:35	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	109696	05/08/25 18:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			109851	05/08/25 18:44	SM	EET MID
Total/NA	Analysis	8015 NM		1			109813	05/08/25 23:42	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	109662	05/07/25 14:33	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109714	05/08/25 23:42	TKC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	109694	05/08/25 07:51	SA	EET MID
Soluble	Analysis	300.0		1			109704	05/08/25 13:15	CH	EET MID

**Client Sample ID: BH02A**

**Lab Sample ID: 890-8134-4**

Date Collected: 05/07/25 11:01

Matrix: Solid

Date Received: 05/07/25 15:11

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	109665	05/07/25 15:35	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	109696	05/08/25 19:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			109851	05/08/25 19:04	SM	EET MID

Eurofins Carlsbad

### Lab Chronicle

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-8134-1  
SDG: 07A1988176

**Client Sample ID: BH02A**

**Lab Sample ID: 890-8134-4**

Date Collected: 05/07/25 11:01

Matrix: Solid

Date Received: 05/07/25 15:11

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			109813	05/08/25 23:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	109662	05/07/25 14:33	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109714	05/08/25 23:56	TKC	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	109694	05/08/25 07:51	SA	EET MID
Soluble	Analysis	300.0		1			109704	05/08/25 13:23	CH	EET MID

**Client Sample ID: BH03**

**Lab Sample ID: 890-8134-5**

Date Collected: 05/07/25 10:21

Matrix: Solid

Date Received: 05/07/25 15:11

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	109665	05/07/25 15:35	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	109696	05/08/25 19:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			109851	05/08/25 19:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			109813	05/09/25 00:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	109662	05/07/25 14:33	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109714	05/09/25 00:27	TKC	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	109694	05/08/25 07:51	SA	EET MID
Soluble	Analysis	300.0		1			109704	05/08/25 13:30	CH	EET MID

**Client Sample ID: BH03A**

**Lab Sample ID: 890-8134-6**

Date Collected: 05/07/25 11:14

Matrix: Solid

Date Received: 05/07/25 15:11

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	109665	05/07/25 15:35	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	109696	05/08/25 19:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			109851	05/08/25 19:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			109813	05/09/25 00:43	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	109662	05/07/25 14:33	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	109714	05/09/25 00:43	TKC	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	109694	05/08/25 07:51	SA	EET MID
Soluble	Analysis	300.0		1			109704	05/08/25 13:38	CH	EET MID

**Laboratory References:**

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

### Accreditation/Certification Summary

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-8134-1  
SDG: 07A1988176

#### Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

- 1
- 2
- 3
- 4
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- 7
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- 9
- 10
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- 12
- 13
- 14

### Method Summary

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-8134-1  
SDG: 07A1988176

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

**Protocol References:**

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Laboratory References:**

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440



### Sample Summary

Client: Ensolum  
Project/Site: State D A CTB

Job ID: 890-8134-1  
SDG: 07A1988176

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-8134-1	BH01	Solid	05/07/25 09:58	05/07/25 15:11	0.5
890-8134-2	BH01A	Solid	05/07/25 10:52	05/07/25 15:11	5
890-8134-3	BH02	Solid	05/07/25 10:08	05/07/25 15:11	0.5
890-8134-4	BH02A	Solid	05/07/25 11:01	05/07/25 15:11	5
890-8134-5	BH03	Solid	05/07/25 10:21	05/07/25 15:11	0.5
890-8134-6	BH03A	Solid	05/07/25 11:14	05/07/25 15:11	6

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- 12
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- 14



Environment Testing  
Xenoco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody



890-8134 Chain of Custody

Project Manager:	FATIMA SMITH	Bill to: (if different)	
Company Name:	ENSOLW, LLC	Company Name:	HICOP / ATR: BILLY GINN
Address:	3122 National Park's Hwy	Address:	
City, State ZIP:	Carlsbad, NM 88320	City, State ZIP:	
Phone:	575-785-1196	Email:	FSMITH@ENSOLW.COM / MSAKH@ENSOLW.COM

Project Name:	State DA CTB	Turn Around	
Project Number:	07A1998176	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	
Project Location:	32.4765286, -103.1723811	Due Date:	5/14/25
Sampler's Name:	Melinda Sarinas	TAT starts the day received by the lab. If received by 4:30pm	
P.O. #:		Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
SAMPLE RECEIPT		Thermometer ID:	TRM007
Samples Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	-0.2
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Temperature Reading:	5.0
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Corrected Temperature:	4.8
Total Containers:		Parameters	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	ANALYSIS REQUEST	Preservative Codes
BH01	S	5/7/25	0958	0.5'	G	1	BTEX	None: NO DI Water: H <sub>2</sub> O
BH01A	S		1052	0.5'	G	1	TPH	Cool: Cool MeOH: Me
BH03	S		1008	0.5'	G	1	Chlorides	HCL: HC HNO <sub>3</sub> : HN
BH02A	S		1101	5'	G	1		H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>
BH03	S		1021	0.5'	G	1		H <sub>3</sub> PO <sub>4</sub> : HP
BH03A	S		1114	6'	G	1		NaHSO <sub>4</sub> : NABS

Work Order Comments

Program:  UST/PST  PRP  Brownfields  RRC  Superfund

State of Project:

Reporting: Level II  Level III  PST/UST  TRRP  Level IV

Deliverables: EDD  ADAPT  Other:

Total 200.7 / 6010      200.8 / 6020:      8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO<sub>2</sub> Na Sr Ti Sn U V Zn  
Circle Method(s) and Metal(s) to be analyzed      TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U      Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenoco. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenoco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenoco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenoco but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	3:11 5/8			

### Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-8134-1

SDG Number: 07A1988176

**Login Number: 8134**

**List Number: 1**

**Creator: Lopez, Abraham**

**List Source: Eurofins Carlsbad**

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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- 2
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### Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-8134-1

SDG Number: 07A1988176

**Login Number: 8134**

**List Number: 2**

**Creator: Laing, Edmundo**

**List Source: Eurofins Midland**

**List Creation: 05/08/25 07:26 AM**

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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## APPENDIX D

### Photographic Log

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**Photographic Log**  
Hilcorp Energy Company  
State D A CTB  
Lea County, New Mexico



Photograph: 1 Date: 3/5/2025  
Description: Soil staining from release  
View: Southwest

Photograph: 2 Date: 3/5/2025  
Description: Soil staining from release  
View: Northwest



Photograph: 3 Date: 3/5/2025  
Description: Sample location SS02  
View: Southeast

Photograph: 4 Date: 5/7/2025  
Description: Sample location BH01  
View: South

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

QUESTIONS

Action 531908

**QUESTIONS**

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 531908
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2505326850
Incident Name	NAPP2505326850 STATE D A CTB @ FAPP2224169341
Incident Type	Oil Release
Incident Status	Remediation Closure Report Received
Incident Facility	[fAPP2224169341] State D A

<b>Location of Release Source</b>	
<i>Please answer all the questions in this group.</i>	
Site Name	STATE D A CTB
Date Release Discovered	02/21/2025
Surface Owner	State

<b>Incident Details</b>	
<i>Please answer all the questions in this group.</i>	
Incident Type	Oil 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

<b>Nature and Volume of Release</b>	
<i>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.</i>	
Crude Oil Released (bbls) Details	Cause: Corrosion   Other (Specify)   Crude Oil   Released: 165 BBL   Recovered: 160 BBL   Lost: 5 BBL.
Produced Water Released (bbls) Details	Not answered.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Release from circulating line from the above ground tank.

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QUESTIONS, Page 2

Action 531908

**QUESTIONS (continued)**

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
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	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	<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>Yes</b>
Reasons why this would be considered a submission for a notification of a major release	<b>From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.</b>

*With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.*

**Initial Response**

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.*

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	NA

*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: Stuart Hyde Title: Senior Geologist Email: shyde@ensolum.com Date: 12/04/2025
--	--

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QUESTIONS, Page 3

Action 531908

**QUESTIONS (continued)**

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 531908
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

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

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	Attached Document
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between ½ and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between ½ and 1 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between ½ and 1 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between ½ and 1 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Between ½ and 1 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

**Remediation Plan**  
*Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

Requesting a remediation plan approval with this submission	Yes
<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

**Soil Contamination Sampling:** (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride (EPA 300.0 or SM4500 Cl B)	174
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	13000
GRO+DRO (EPA SW-846 Method 8015M)	13000
BTEX (EPA SW-846 Method 8021B or 8260B)	147
Benzene (EPA SW-846 Method 8021B or 8260B)	2.2

*Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.*

On what estimated date will the remediation commence	07/01/2025
On what date will (or did) the final sampling or liner inspection occur	07/15/2025
On what date will (or was) the remediation complete(d)	07/15/2025
What is the estimated surface area (in square feet) that will be reclaimed	0
What is the estimated volume (in cubic yards) that will be reclaimed	0
What is the estimated surface area (in square feet) that will be remediated	4900
What is the estimated volume (in cubic yards) that will be remediated	1270

*These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed. The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.*

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QUESTIONS, Page 4

Action 531908

**QUESTIONS (continued)**

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 531908
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

**Remediation Plan (continued)**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

**This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:**

(Select all answers below that apply.)

(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	FEEM0112334085 SUNDANCE PARABO
<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	No
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	No
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

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

I hereby agree and sign off to the above statement	Name: Stuart Hyde Title: Senior Geologist Email: shyde@ensolum.com Date: 12/04/2025
--	--

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 5

Action 531908

**QUESTIONS (continued)**

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 531908
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

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

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QUESTIONS, Page 6

Action 531908

**QUESTIONS (continued)**

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 531908
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Sampling Event Information</b>	
Last sampling notification (C-141N) recorded	<b>502099</b>
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	<b>09/12/2025</b>
What was the (estimated) number of samples that were to be gathered	<b>20</b>
What was the sampling surface area in square feet	<b>3800</b>

**Remediation Closure Request**

*Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.*

Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	3753
What was the total volume (cubic yards) remediated	450
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	3753
What was the total volume (in cubic yards) reclaimed	450
Summarize any additional remediation activities not included by answers (above)	Delineation and excavation activities were conducted at the Site to address the February 21, 2025 crude oil release. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated all COCs were compliant with the Site Closure Criteria. Based on the soil sample laboratory analytical results, no further remediation is required. Hilcorp will backfill the excavation with material purchased locally and recontour the Site to match pre-existing Site conditions. Excavation of impacted soil has mitigated impacts exceeding the Closure Criteria at the Site. Hilcorp believes these remedial actions are protective of human health, the environment, and groundwater. As such, Hilcorp respectfully requests closure for Incident Number nAPP2505326850.

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

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

I hereby agree and sign off to the above statement	Name: Stuart Hyde Title: Senior Geologist Email: shyde@ensolum.com Date: 12/04/2025
--	--



## OCD Permitting

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CONDITIONS

Action 531908

**CONDITIONS**

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 531908
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**CONDITIONS**

Created By	Condition	Condition Date
nvez	Remediation has met 19.15.29 NMAC requirements. Soil impacts exceeding the reclamation standards have been left in place and are required to meet 19.15.29.13D (1) NMAC once the site is no longer reasonably needed for production or subsequent drilling ops.	2/3/2026