

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	NCS1916850662
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party: <b>Enterprise Field Services, LLC</b>	OGRID: <b>151618</b>
Contact Name: <b>Thomas Long</b>	Contact Telephone: <b>505-599-2286</b>
Contact email: <b>tjlong@eprod.com</b>	Incident # (assigned by OCD): <b>NCS1916850662</b>
Contact mailing address: <b>614 Reilly Ave, Farmington, NM 87401</b>	

### Location of Release Source

Latitude 36.867573 Longitude -107.973699 (NAD 83 in decimal degrees to 5 decimal places)

Site Name <b>Lateral H-8 (X-91419) Pipeline</b>	Site Type <b>Natural Gas Gathering Pipeline</b>
Date Release Discovered: <b>5/25/2019</b>	Serial Number (if applicable): <b>NA</b>

Unit Letter	Section	Township	Range	County
<b>I</b>	<b>27</b>	<b>31N</b>	<b>11W</b>	<b>San Juan</b>

Surface Owner:  State  Federal  Tribal  Private (Name: Randy James Labato)

### Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Condensate	Volume Released (bbls): <b>&gt; 1-2 bbls</b>	Volume Recovered (bbls): <b>None</b>
<input checked="" type="checkbox"/> Natural Gas	Volume Released (Mcf): <b>45 MCF</b>	Volume Recovered (Mcf): <b>None</b>
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units):	Volume/Weight Recovered (provide units)

**Cause of Release:** On May 25, 2019, Enterprise responded to a release of natural gas on the Lateral H-8 (X-91419) pipeline. The release was a result of a private property owner driving a steel stake through a four inch natural gas gathering pipeline. No fire or injuries resulted from this event. The fire department was notified and responded to secure the affected area. Approximately one barrel of condensate was released to the ground surface. The pipeline was isolated, depressurized, locked out and tagged out. On June 13, 2019, Enterprise completed the initial remediation. On August 15, 2019, Enterprise completed the remediation of the release. The final excavation dimensions measured approximately 118 feet long by 5 feet wide by approximately 5 feet deep. Approximately eight cubic yards of hydrocarbon impacted soil were excavated and transported to a New Mexico Oil Conservation Division approved land farm facility. A third party closure report is included with this "Final." C-141.

Form C-141

State of New Mexico  
Oil Conservation Division

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Incident ID	
District RP	
Facility ID	
Application ID	

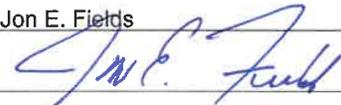
### Closure

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

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

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

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

Printed Name: Jon E. Fields Title: Director, Environmental  
 Signature:  Date: 11/12/19  
 email: jefields@eprod.com Telephone: (713) 381-6684

**OCD Only**

Received by: OCD Date: 11/25/19

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

Closure Approved by:  Date: 2/18/2020  
 Printed Name: OCD Title: Environmental Specialist



**CLOSURE REPORT**

Property:

**Lateral H-8 Pipeline Release  
SE ¼, S27 T31N R11W  
San Juan County, New Mexico**

October 8, 2019  
Ensolum Project No. 05A1226059

Prepared for:

**Enterprise Field Services, LLC  
614 Reilly Avenue  
Farmington, NM 87401  
Attn: Mr. Thomas Long**

Prepared by:

A handwritten signature in blue ink, reading "Rane Deechilly".

---

Ranee Deechilly  
Environmental Scientist

A handwritten signature in purple ink, reading "Kyle Summers".

---

Kyle Summers, CPG  
Sr. Project Manager

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## CLOSURE REPORT

**Lateral H-8 Pipeline Release  
SE ¼, S27 T31N R11W  
San Juan County, New Mexico**

**Ensolum Project No. 05A1226059**

### 1.0 INTRODUCTION

#### 1.1 Site Description & Background

<b>Operator:</b>	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
<b>Site Name:</b>	Lateral H-8 Pipeline Release (Site)
<b>Location:</b>	36.867573° North, 107.973699° West Southeast (SE) ¼ of Section 27, Township 31 North, Range 11 West San Juan County, New Mexico
<b>Property:</b>	Private Land (Lobato, Randy James)
<b>Regulatory:</b>	New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On May 25, 2019, a line strike occurred on the Lateral H-8 well tie pipeline which resulted in the release of natural gas. The pipeline was subsequently isolated and locked out of service. On the same day, May 25, 2019, Enterprise performed initial response clean-up of the affected soils at the location to mitigate potential safety hazards. On June 13, 2019, Enterprise initiated activities to facilitate the repair and lowering of the pipeline, and to remediate any remaining petroleum hydrocarbon impact resulting from the release.

A **Topographic Map** depicting the location of the Site is included as **Figure 1**, and a **Site Vicinity Map** is included as **Figure 2** in **Appendix A**.

#### 1.2 Project Objective

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

### 2.0 CLOSURE CRITERIA

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

- Numerous water wells were identified within a one-half mile radius of the Site on the OSE Water Rights Reporting System (WRRS) database. Records for the water wells indicate depths to water ranging from five (5) feet below grade surface (SJ 00363) to 55 feet bgs (SJ 02482). At the closest

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well (SJ 02468, located approximately 250 feet southeast of the Site), the reported depth to water is 30 feet bgs.

- One (1) cathodic protection well was identified within one-half mile of the Site. Records for cathodic protection well Calloway #1A indicates depth to water at 75 feet bgs.
- The Site is located within 300 feet of a New Mexico ENMRD OCD-defined continuously flowing watercourse or significant watercourse.
- The Site is not located within 200 feet of a lakebed, sinkhole or playa lake.
- The Site is located within 300 feet of a permanent residence, school, hospital, institution or church.
- Springs, or private domestic fresh water wells used by less than five (5) households for domestic or stock watering purposes were identified within 500 feet of the Site.
- As indicated above, fresh water wells or springs were identified within 1,000 feet of the Site.
- The Site is not located within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3.
- The Site is located within 300 feet of a wetland.
- Based on information identified on the New Mexico Mining and Minerals Division's GIS, Maps and Mine Data database, the Site is not located within an area overlying a subsurface mine.
- The Site is not located within an unstable area.
- The Site is not located within a 100-year floodplain.

Based on the identified siting criteria, cleanup goals for soils remaining in place at the Site include:

Closure Criteria for Soils Impacted by a Release		
Constituent	Method	Limit
Chloride	EPA 300.0 or SM4500 Cl B	600 mg/kg
TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015	100 mg/kg
BTEX	EPA SW-846 Method 8021 or 8260	50 mg/kg
Benzene	EPA SW-846 Method 8021 or 8260	10 mg/kg

### 3.0 SOIL REMEDIATION ACTIVITIES

On May 25, 2019, Enterprise performed initial response clean-up of the affected soils at the location to mitigate potential safety hazards. On June 13, 2019, Enterprise initiated activities to facilitate the repair and lowering of the pipeline, and to remediate any remaining petroleum hydrocarbon impact resulting from

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the release. During the remediation and corrective action activities Sierra Oilfield Services Inc (Sierra) provided heavy equipment and labor support, while Ensolum provided environmental consulting support.

The repair excavation measured approximately 118 feet long and five (5) feet wide at the maximum extents. The maximum depth of the excavation measured approximately five (5) feet bgs.

The lithology encountered during the completion of remediation activities consisted primarily of unconsolidated silty sand.

A total of approximately 8 cubic yards (cy) of petroleum hydrocarbon affected soils were transported to the Envirotech, Inc. (Envirotech) landfarm near Hilltop, New Mexico for disposal/remediation. The executed C-138 solid waste acceptance forms are provided in **Appendix B**. The excavation was backfilled with a combination of imported fill and laboratory-confirmed stockpiled soils and was then contoured to surrounding grade.

**Figure 3** is a map that identifies approximate soil sample locations and depicts the approximate dimensions of the excavation with respect to the pipeline (**Appendix A**). Photographic documentation of the field activities is included in **Appendix C**.

#### 4.0 SOIL SAMPLING PROGRAM

Ensolum field screened soil samples from the excavation utilizing a photoionization detector (PID) fitted with a 10.6 eV lamp and a calibrated Dexsil PetroFLAG<sup>®</sup> hydrocarbon analyzer system to guide excavation extents.

Ensolum's soil sampling program included the collection of 3 composite soil samples (S-1 through S-3), comprised of five (5) aliquots each, from the excavation for laboratory analyses. In addition, one (1) stockpile soil sample (SP-1) was collected from the stockpiled soils from the vicinity of the release area to determine the potential for reuse as backfill. Three (3) composite soil samples (S-4 through S-6) were collected from hand-auger soil borings advanced in the vicinity of the release point. A clean shovel was utilized to obtain fresh aliquots from each accessible area of the excavation. A hand auger was utilized to obtain soil samples for each soil boring location. The New Mexico EMNRD OCD provided verbal approval to proceed with the sampling events, although a New Mexico EMNRD OCD representative was not on-Site during the June 13, 2019 sampling event. A New Mexico EMNRD OCD was on-Site during the August 15, 2019 sampling event.

##### First Sampling Event

Prior to Ensolum's arrival at the Site, the repair excavation was extended to the north and south of the release area to accommodate lowering the pipeline on this parcel of property. During the first sampling event, the portion of the repair excavation in the vicinity of the release was sampled to evaluate petroleum hydrocarbon impact. Composite soil samples S-1 (0'-4') and S-3 (0'-4') were collected from 200 square feet of the east and west sidewalls of the excavation, adjacent to the point of release. Composite soil sample S-2 (4') was collected from 200 square feet of the floor of the excavation, beneath the point of release. Subsequent to the pipeline repairs, the excavation was immediately backfilled due to the proximity of the residence and the access restriction to much of the property.

##### Second Sampling Event

The New Mexico EMNRD OCD requested that additional sampling be performed at the Site. During the second sampling event, composite soil samples S-4 (0.5'-5'), S-5 (0.5' to 5'), and S-6 (0.5'-5') were collected from hand-auger soil borings advanced in the vicinity of the release with approval and observation from the New Mexico EMNRD OCD representative.

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Soil samples were collected and placed in laboratory prepared glassware, labeled/sealed using the laboratory supplied labels and custody seals, and stored on ice in a cooler. The samples were relinquished to the courier for Hall Environmental Analysis Laboratory of Albuquerque, New Mexico, under proper chain-of-custody procedures.

## 5.0 SOIL LABORATORY ANALYTICAL METHODS

The composite soil samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) using Environmental Protection Agency (EPA) SW-846 Method #8021, total petroleum hydrocarbon (TPH) gasoline range organics (GRO), diesel range organics (DRO), and motor oil/lube oil range organics (MRO) using EPA SW-846 Method #8015, and chlorides using EPA Method #300.0.

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

## 6.0 DATA EVALUATION

Ensolum compared the BTEX, TPH, and chloride laboratory analytical results or laboratory practical quantitation limits (PQLs) / reporting limits (RLs) associated with the composite soil samples (S-1 through S-6 and SP-1) to the applicable New Mexico EMNRD OCD closure criteria.

- The laboratory analytical results for the composite soil samples collected from soils remaining at the Site indicate benzene is not present in concentrations greater than the laboratory PQLs/RLs, which are less than the New Mexico EMNRD OCD closure criteria of 10 milligrams per kilogram (mg/kg).
- The laboratory analytical results for the composite soil samples collected from soils remaining at the Site indicate total BTEX is not present in concentrations greater than the laboratory PQLs/RLs, which are less than the New Mexico EMNRD OCD closure criteria of 50 mg/kg.
- The laboratory analytical results for composite soil sample SP-1 indicates a combined TPH GRO/DRO/MRO concentration of 10 mg/kg, which is less than the New Mexico EMNRD OCD closure criteria of 100 mg/kg. The laboratory analytical results for the remaining composite soil samples collected from soils remaining at the Site indicate combined TPH GRO/DRO/MRO is not present in concentrations greater than the laboratory PQLs/RLs, which are less than the New Mexico EMNRD OCD closure criteria of 100 mg/kg.
- The laboratory analytical result for the composite soil sample S-5 indicates a chloride concentration of 70 mg/kg, which is less than the New Mexico EMNRD OCD closure criteria of 600 mg/kg for chlorides. The laboratory analytical results for the remaining composite soil samples collected from soils remaining at the Site indicate chloride is not present in concentrations greater than laboratory PQLs/RLs, which are less than the New Mexico EMNRD OCD closure criteria of 600 mg/kg for chlorides.

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

## 7.0 RECLAMATION AND RE-VEGETATION

The excavation was backfilled with imported fill and segregated, laboratory-confirmed, unaffected stockpiled soils, and then contoured to the surrounding grade. Enterprise will reseed the area if requested by the landowner.



## 8.0 FINDINGS AND RECOMMENDATION

On May 25, 2019, a line strike occurred on the Lateral H-8 well tie pipeline which resulted in the release of natural gas. The pipeline was subsequently isolated and locked out of service. On the same day, May 25, 2019, Enterprise performed initial response clean-up of the affected soils at the location to mitigate potential safety hazards. On June 13, 2019, Enterprise initiated activities to facilitate the repair and lowering of the pipeline, and to remediate any remaining petroleum hydrocarbon impact resulting from the release.

- The primary objective of the closure activities was to reduce COC concentrations in the on-Site soils to below the applicable New Mexico EMNRD OCD closure criteria using the New Mexico EMNRD OCD's NMAC 19.15.29 *Releases* as guidance.
- A total of seven (7) composite soil samples were collected from the repair excavation and stockpiled soil for laboratory analysis. Based on soil laboratory analytical results, soils remaining in place do not exhibit COC concentrations above the New Mexico EMNRD OCD closure criteria.
- The excavation was backfilled with a combination of imported fill and laboratory-confirmed stockpiled soils, and was then contoured to surrounding grade.

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

## 9.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

### 9.1 Standard of Care

Ensolum's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Ensolum makes no warranties, express or implied, as to the services performed hereunder. Additionally, Ensolum does not warrant the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties).

### 9.2 Additional Limitations

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

### 9.3 Reliance

This report has been prepared for the exclusive use of Enterprise Products Operating LLC, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization Enterprise Products Operating LLC and Ensolum. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the Closure

Enterprise Field Services, LLC  
Closure Report  
Lateral H-8 Pipeline Release  
October 8, 2019



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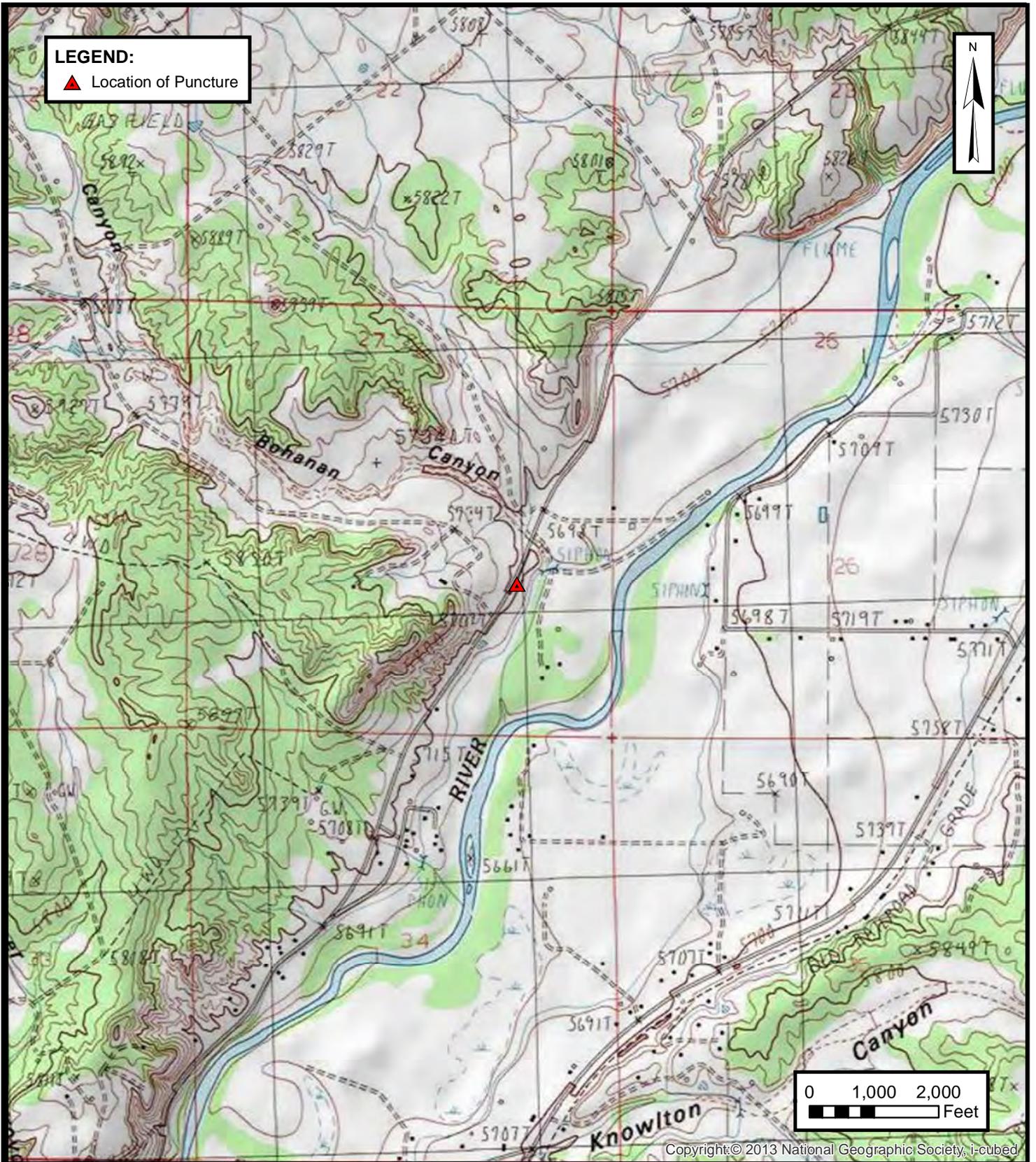
Report, and Ensolum's Master Services Agreement. The limitation of liability defined in the agreement is the aggregate limit of Ensolum's liability to the client.



## APPENDIX A

### Figures

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**TOPOGRAPHIC MAP**  
 ENTERPRISE FIELD SERVICES, LLC  
 LATERAL H-8 PIPELINE RELEASE  
 SE ¼, S27 T31N R11W, San Juan County, New Mexico  
 36.867573° N, 107.973699° W

PROJECT NUMBER: 05A1226059

**FIGURE**  
**1**



**SITE VICINITY MAP**

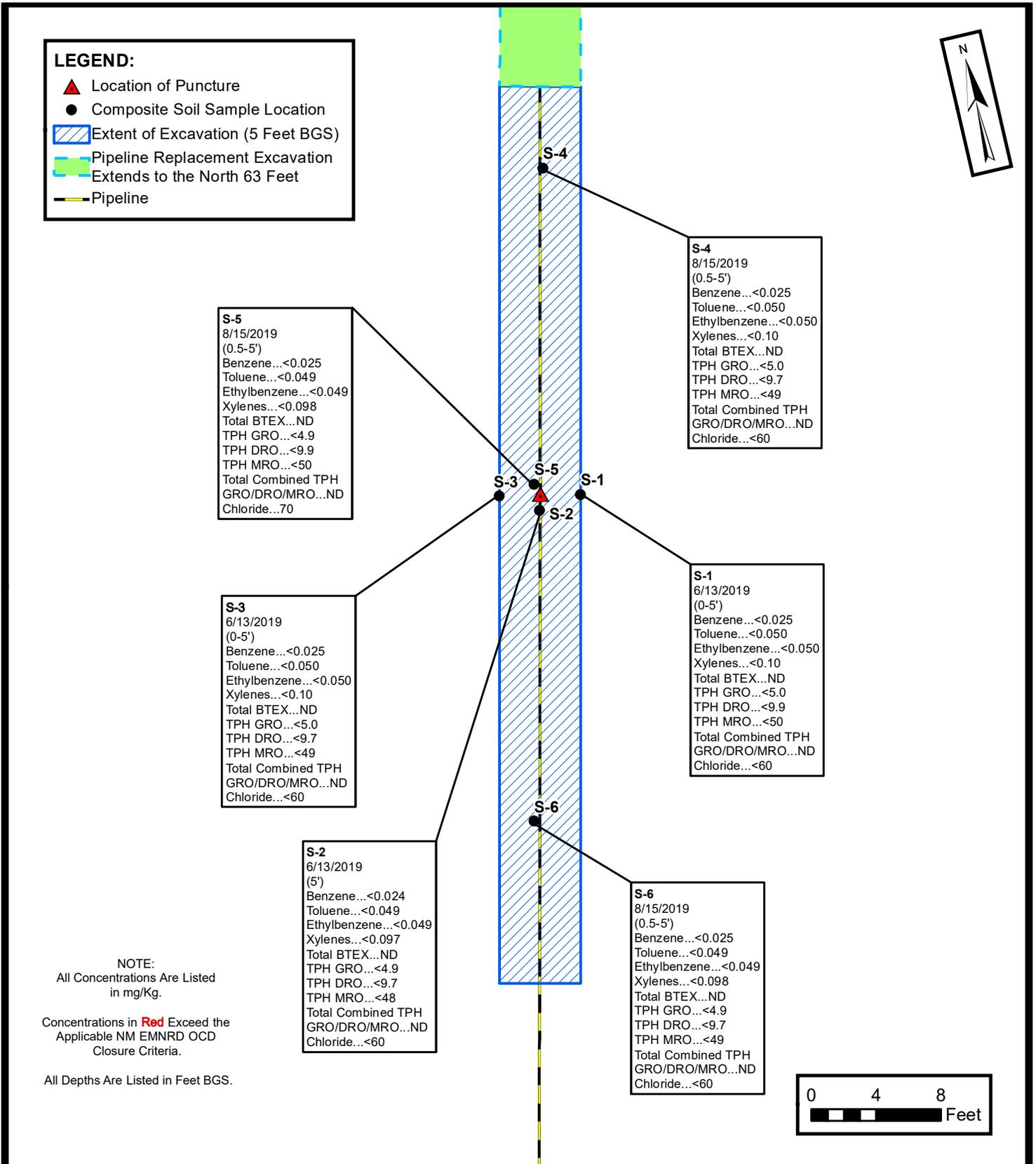
ENTERPRISE FIELD SERVICES, LLC  
 LATERAL H-8 PIPELINE RELEASE  
 SE ¼, S27 T31N R11W, San Juan County, New Mexico  
 36.867573° N, 107.973699° W

PROJECT NUMBER: 05A1226059

**FIGURE**

**2**





**SITE MAP**  
 ENTERPRISE FIELD SERVICES, LLC  
 LATERAL H-8 PIPELINE RELEASE  
 SE ¼, S27 T31N R11W, San Juan County, New Mexico  
 36.867573° N, 107.973699° W  
 PROJECT NUMBER: 05A1226059

**FIGURE**  
**3**



APPENDIX B

Executed C-138 Solid Waste Acceptance Form

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District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

97057-1011

Form C-138  
Revised 08/01/11

\*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

**REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE**

1. **Generator Name and Address:**  
Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401

2. **Originating Site:**  
Well Tie X-91419 Off of Blanco H-8

3. **Location of Material (Street Address, City, State or ULSTR):**  
UL I Section 27 T31N R11W; 36.867573, -107.973699

4. **Source and Description of Waste:**  
Source: Hydrocarbon impacted soil from natral gas pipeline leak.  
Description: Hydrocarbon impacted soil associated with remediation activities.  
Estimated Volume 10 (yd<sup>3</sup>) bbls Known Volume (to be entered by the operator at the end of the haul) 8 (yd<sup>3</sup>) bbls

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**

I, Thomas Long *Thomas Long*, representative or authorized agent for Enterprise Products Operating do hereby  
Generator Signature  
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. Operator Use Only: Waste Acceptance Frequency  Monthly  Weekly  Per Load

RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

MSDS Information  RCRA Hazardous Waste Analysis  Process Knowledge  Other (Provide description in Box 4)

**GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS**

I, Thomas Long *Thomas Long* 5-25-19 representative for Enterprise Products Operating authorizes Envirotech, Inc. to complete  
Generator Signature  
the required testing/sign the Generator Waste Testing Certification.

I, Greg Crabtree, representative for Envirotech, Inc. do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

5. **Transporter: Sierra Env.**

May 2019

**OCD Permitted Surface Waste Management Facility**

Name and Facility Permit #: **Envirotech Inc. Soil Remediation Facility \* Permit #: NM 01-0011**

Address of Facility: **Hilltop, NM**

Method of Treatment and/or Disposal:

Evaporation  Injection  Treating Plant  Landfarm  Landfill  Other

Waste Acceptance Status:

**APPROVED**

**DENIED (Must Be Maintained As Permanent Record)**

PRINT NAME: Greg Crabtree  
SIGNATURE: [Signature]  
Surface Waste Management Facility Authorized Agent

TITLE: Enviro Manager DATE: 5/25/19  
TELEPHONE NO.: 505-632-0615



## APPENDIX C

### Photographic Documentation

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**Photograph 1**

Photograph Description: View of the repaired and lowered pipeline at the release point.



**Photograph 2**

Photograph Description: View of the stockpiled soil adjacent to the release point.



**Photograph 3**

Photograph Description: View of the final repair excavation.





## APPENDIX D

### Table 1 – Soil Analytical Summary

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**TABLE 1**  
Lateral H-8 Pipeline Release  
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Type C- Composite G - Grab	Sample Depth (feet)	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)	Total Combined TPH (GRO/DRO/MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Energy Mineral & Natural Resources Department Oil Conservation Division Closure Criteria				10	NE	NE	NE	50				100	600
Stockpiled Soil Sample													
SP-1	06.13.19	C	Stockpile	<0.025	<0.049	<0.049	<0.098	ND	<4.9	10	<48	10	<60
Final Confirmation Composite Soil Samples													
S-1	06.13.19	C	0 to 5	<0.025	<0.050	<0.050	<0.10	ND	<5.0	<9.9	<50	ND	<60
S-2	06.13.19	C	5	<0.024	<0.049	<0.049	<0.097	ND	<4.9	<9.7	<48	ND	<60
S-3	06.13.19	C	0 to 5	<0.025	<0.050	<0.050	<0.10	ND	<5.0	<9.7	<49	ND	<60
S-4	08.15.19	C	0.5 to 5	<0.025	<0.050	<0.050	<0.10	ND	<5.0	<9.7	<49	ND	<60
S-5	08.15.19	C	0.5 to 5	<0.025	<0.049	<0.049	<0.098	ND	<4.9	<9.9	<50	ND	70
S-6	08.15.19	C	0.5 to 5	<0.025	<0.049	<0.049	<0.098	ND	<4.9	<9.7	<49	ND	<60

Note: Concentrations in bold and yellow exceed the applicable NM EMNRD OCD Closure Criteria

ND = Not Detected above the Practical Quantitation Limits

NA = Not Analyzed

NE = Not established

mg/kg = milligram per kilogram

TPH = Total Petroleum Hydrocarbon

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil/Lube Oil Range Organics



## APPENDIX E

### Laboratory Data Sheets & Chain of Custody Documentation

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Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

June 20, 2019

Kyle Summers

ENSOLUM

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX

RE: Lateral H 8

OrderNo.: 1906758

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/14/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a white background.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

## Analytical Report

Lab Order 1906758

Date Reported: 6/20/2019

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-1

Project: Lateral H 8

Collection Date: 6/13/2019 2:00:00 PM

Lab ID: 1906758-001

Matrix: SOIL

Received Date: 6/14/2019 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	60		mg/Kg	20	6/19/2019 4:13:26 PM	45676
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/18/2019 9:53:05 PM	45619
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/18/2019 9:53:05 PM	45619
Surr: DNOP	95.1	70-130		%Rec	1	6/18/2019 9:53:05 PM	45619
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/17/2019 2:36:43 PM	45599
Surr: BFB	101	73.8-119		%Rec	1	6/17/2019 2:36:43 PM	45599
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	6/17/2019 2:36:43 PM	45599
Toluene	ND	0.050		mg/Kg	1	6/17/2019 2:36:43 PM	45599
Ethylbenzene	ND	0.050		mg/Kg	1	6/17/2019 2:36:43 PM	45599
Xylenes, Total	ND	0.10		mg/Kg	1	6/17/2019 2:36:43 PM	45599
Surr: 4-Bromofluorobenzene	98.2	80-120		%Rec	1	6/17/2019 2:36:43 PM	45599

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL	Practical Quantitative Limit	RL Reporting Limit
S	% Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1906758**

Date Reported: **6/20/2019**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** ENSOLUM

**Client Sample ID:** S-2

**Project:** Lateral H 8

**Collection Date:** 6/13/2019 2:10:00 PM

**Lab ID:** 1906758-002

**Matrix:** SOIL

**Received Date:** 6/14/2019 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	60		mg/Kg	20	6/19/2019 4:25:51 PM	45676
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/18/2019 11:06:35 PM	45619
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/18/2019 11:06:35 PM	45619
Surr: DNOP	112	70-130		%Rec	1	6/18/2019 11:06:35 PM	45619
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/17/2019 2:59:22 PM	45599
Surr: BFB	99.6	73.8-119		%Rec	1	6/17/2019 2:59:22 PM	45599
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	6/17/2019 2:59:22 PM	45599
Toluene	ND	0.049		mg/Kg	1	6/17/2019 2:59:22 PM	45599
Ethylbenzene	ND	0.049		mg/Kg	1	6/17/2019 2:59:22 PM	45599
Xylenes, Total	ND	0.097		mg/Kg	1	6/17/2019 2:59:22 PM	45599
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	6/17/2019 2:59:22 PM	45599

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

**Analytical Report**

Lab Order **1906758**

Date Reported: **6/20/2019**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** ENSOLUM

**Client Sample ID:** S-3

**Project:** Lateral H 8

**Collection Date:** 6/13/2019 2:30:00 PM

**Lab ID:** 1906758-003

**Matrix:** SOIL

**Received Date:** 6/14/2019 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	60		mg/Kg	20	6/19/2019 4:38:15 PM	45676
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/18/2019 11:31:12 PM	45619
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/18/2019 11:31:12 PM	45619
Surr: DNOP	92.7	70-130		%Rec	1	6/18/2019 11:31:12 PM	45619
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/17/2019 3:22:03 PM	45599
Surr: BFB	101	73.8-119		%Rec	1	6/17/2019 3:22:03 PM	45599
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	6/17/2019 3:22:03 PM	45599
Toluene	ND	0.050		mg/Kg	1	6/17/2019 3:22:03 PM	45599
Ethylbenzene	ND	0.050		mg/Kg	1	6/17/2019 3:22:03 PM	45599
Xylenes, Total	ND	0.10		mg/Kg	1	6/17/2019 3:22:03 PM	45599
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	6/17/2019 3:22:03 PM	45599

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

**Analytical Report**

Lab Order **1906758**

Date Reported: **6/20/2019**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** ENSOLUM

**Client Sample ID:** SP-1 Stockpile

**Project:** Lateral H 8

**Collection Date:** 6/13/2019 2:40:00 PM

**Lab ID:** 1906758-004

**Matrix:** SOIL

**Received Date:** 6/14/2019 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	60		mg/Kg	20	6/19/2019 4:50:39 PM	45676
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	10	9.6		mg/Kg	1	6/18/2019 11:55:37 PM	45619
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/18/2019 11:55:37 PM	45619
Surr: DNOP	93.6	70-130		%Rec	1	6/18/2019 11:55:37 PM	45619
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/17/2019 3:44:39 PM	45599
Surr: BFB	99.4	73.8-119		%Rec	1	6/17/2019 3:44:39 PM	45599
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	6/17/2019 3:44:39 PM	45599
Toluene	ND	0.049		mg/Kg	1	6/17/2019 3:44:39 PM	45599
Ethylbenzene	ND	0.049		mg/Kg	1	6/17/2019 3:44:39 PM	45599
Xylenes, Total	ND	0.098		mg/Kg	1	6/17/2019 3:44:39 PM	45599
Surr: 4-Bromofluorobenzene	99.1	80-120		%Rec	1	6/17/2019 3:44:39 PM	45599

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1906758

20-Jun-19

**Client:** ENSOLUM

**Project:** Lateral H 8

Sample ID: <b>MB-45676</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45676</b>	RunNo: <b>60761</b>								
Prep Date: <b>6/19/2019</b>	Analysis Date: <b>6/19/2019</b>	SeqNo: <b>2057470</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-45676</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45676</b>	RunNo: <b>60761</b>								
Prep Date: <b>6/19/2019</b>	Analysis Date: <b>6/19/2019</b>	SeqNo: <b>2057471</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.4	90	110			

**Qualifiers:**

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| PQL Practical Quantitative Limit                        | RL Reporting Limit                                |
| S % Recovery outside of range due to dilution or matrix |   |

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 1906758

20-Jun-19

Client: ENSOLUM

Project: Lateral H 8

Sample ID: <b>LCS-45572</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45572</b>	RunNo: <b>60697</b>								
Prep Date: <b>6/13/2019</b>	Analysis Date: <b>6/17/2019</b>	SeqNo: <b>2054878</b>							Units: <b>%Rec</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.0		5.000		99.3	70	130			

Sample ID: <b>MB-45619</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45619</b>	RunNo: <b>60743</b>								
Prep Date: <b>6/17/2019</b>	Analysis Date: <b>6/18/2019</b>	SeqNo: <b>2055583</b>							Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	14		10.00		136	70	130			S

Sample ID: <b>LCS-45619</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45619</b>	RunNo: <b>60743</b>								
Prep Date: <b>6/17/2019</b>	Analysis Date: <b>6/18/2019</b>	SeqNo: <b>2055585</b>							Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	61	10	50.00	0	122	63.9	124			
Surr: DNOP	6.5		5.000		129	70	130			

Sample ID: <b>1906758-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>S-1</b>	Batch ID: <b>45619</b>	RunNo: <b>60743</b>								
Prep Date: <b>6/17/2019</b>	Analysis Date: <b>6/18/2019</b>	SeqNo: <b>2055641</b>							Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	9.9	49.36	0	85.8	57	142			
Surr: DNOP	4.4		4.936		89.6	70	130			

Sample ID: <b>1906758-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>S-1</b>	Batch ID: <b>45619</b>	RunNo: <b>60743</b>								
Prep Date: <b>6/17/2019</b>	Analysis Date: <b>6/18/2019</b>	SeqNo: <b>2055643</b>							Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.7	48.69	0	87.3	57	142	0.351	20	
Surr: DNOP	4.5		4.869		92.1	70	130	0	0	

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**WO#: **1906758**

20-Jun-19

**Client:** ENSOLUM**Project:** Lateral H 8

Sample ID: <b>MB-45599</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45599</b>	RunNo: <b>60695</b>								
Prep Date: <b>6/14/2019</b>	Analysis Date: <b>6/17/2019</b>	SeqNo: <b>2053858</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		106	73.8	119			

Sample ID: <b>LCS-45599</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45599</b>	RunNo: <b>60695</b>								
Prep Date: <b>6/14/2019</b>	Analysis Date: <b>6/17/2019</b>	SeqNo: <b>2053859</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.3	80.1	123			
Surr: BFB	1200		1000		120	73.8	119			S

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**WO#: **1906758**

20-Jun-19

**Client:** ENSOLUM**Project:** Lateral H 8

Sample ID: <b>MB-45599</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>45599</b>	RunNo: <b>60695</b>								
Prep Date: <b>6/14/2019</b>	Analysis Date: <b>6/17/2019</b>	SeqNo: <b>2053902</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID: <b>LCS-45599</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>45599</b>	RunNo: <b>60695</b>								
Prep Date: <b>6/14/2019</b>	Analysis Date: <b>6/17/2019</b>	SeqNo: <b>2053903</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	102	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.9	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		115	80	120			

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		



Hall Environmental Analysis Laboratory  
 4901 Hawkins NE  
 Albuquerque, NM 87109  
 TEL: 505-345-3975 FAX: 505-345-4107  
 Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: ENSOLUM AZTEC

Work Order Number: 1906758

RcptNo: 1

Received By: Desiree Dominguez 6/14/2019 7:55:00 AM

*DD*

Completed By: Erin Melendrez 6/14/2019 8:40:27 AM

*EM*

Reviewed By: YG 6/14/19

**Chain of Custody**

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Courier

**Log In**

3. Was an attempt made to cool the samples? Yes  No  NA
4. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
5. Sample(s) in proper container(s)? Yes  No
6. Sufficient sample volume for indicated test(s)? Yes  No
7. Are samples (except VOA and ONG) properly preserved? Yes  No
8. Was preservative added to bottles? Yes  No  NA
9. VOA vials have zero headspace? Yes  No  No VOA Vials
10. Were any sample containers received broken? Yes  No
11. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)
12. Are matrices correctly identified on Chain of Custody? Yes  No
13. Is it clear what analyses were requested? Yes  No
14. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

# of preserved bottles checked for pH: \_\_\_\_\_  
 (<2 or >12 unless noted)  
 Adjusted? \_\_\_\_\_  
 Checked by: DAD 6/14/19

**Special Handling (if applicable)**

15. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

16. Additional remarks:

**17. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.0	Good	Yes			
2	1.9	Good	Yes			

### Chain-of-Custody Record

Client: Ensochem, LLC  
 Mailing Address: 606 S. Rio Grande  
Suite A, Aztec NM 87410  
 Phone #: 983-831-5603  
 email or Fax#: K. Summers, Ensochem  
 QA/QC Package:  Standard  Level 4 (Full Validation)  
 Accreditation:  Az Compliance  NELAC  Other  EDD (Type)

Turn-Around Time:  Standard  Rush  
 Project Name: Lateral H-8  
 Project #: 25A1226059  
 Project Manager: K. Summers  
 Sampler: K. Summers  
 On Ice:  Yes  No  
 # of Coolers: 2  
 Cooler Temp (including CF): S:2-0.2=50% 2.1-0.2=19%

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No
6/13/19	1400	S	S-1	1X4oz	ice	-001
6/13/19	1410	S	S-2	1X4oz	ice	-002
6/13/19	1430	S	S-3	1X4oz	ice	-003
6/13/19	1440	S	SP-1 Stockpile	1X4oz	ice	-004
<u>NS</u>						
<u>NS</u>						

Relinquished by: [Signature]  
 Date: 6/13/19 1541  
 Relinquished by: [Signature]  
 Date: 6/13/19 1822  
 Received by: Christ Laet  
 Date: 6/13/19 1541  
 Received by: Courier  
 Date: 6/14/19 7:55



**HALL ENVIRONMENTAL ANALYSIS LABORATORY**  
 www.hallenvironmental.com  
 4901 Hawkins NE - Albuquerque, NM 87109  
 Tel. 505-345-3975 Fax 505-345-4107

### Analysis Request

Analysis Request	MTBE / TMBs (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCBs	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	CL, BF, NO <sub>2</sub> , NO <sub>3</sub> , PO <sub>4</sub> , SO <sub>4</sub>	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
	X	X					X			
	X	X					X			
	X	X					X			
	X	X					X			

Remarks: B:11 Tom Long  
Ray Key A42805

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

August 23, 2019

Kyle Summers

ENSOLUM

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX:

RE: Lateral H 8

OrderNo.: 1908959

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 3 sample(s) on 8/16/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written in a cursive style.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

**Analytical Report**

Lab Order **1908959**

Date Reported: **8/23/2019**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** ENSOLUM

**Client Sample ID:** S-4

**Project:** Lateral H 8

**Collection Date:** 8/15/2019 10:00:00 AM

**Lab ID:** 1908959-001

**Matrix:** SOIL

**Received Date:** 8/16/2019 7:57:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	8/22/2019 11:18:43 AM	46985
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/20/2019 1:21:38 PM	46891
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/20/2019 1:21:38 PM	46891
Surr: DNOP	93.3	70-130		%Rec	1	8/20/2019 1:21:38 PM	46891
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/18/2019 1:54:09 PM	46868
Surr: BFB	102	77.4-118		%Rec	1	8/18/2019 1:54:09 PM	46868
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	8/18/2019 1:54:09 PM	46868
Toluene	ND	0.050		mg/Kg	1	8/18/2019 1:54:09 PM	46868
Ethylbenzene	ND	0.050		mg/Kg	1	8/18/2019 1:54:09 PM	46868
Xylenes, Total	ND	0.10		mg/Kg	1	8/18/2019 1:54:09 PM	46868
Surr: 4-Bromofluorobenzene	96.1	80-120		%Rec	1	8/18/2019 1:54:09 PM	46868

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

## Analytical Report

Lab Order 1908959

Date Reported: 8/23/2019

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-5

Project: Lateral H 8

Collection Date: 8/15/2019 10:30:00 AM

Lab ID: 1908959-002

Matrix: SOIL

Received Date: 8/16/2019 7:57:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	70	60		mg/Kg	20	8/22/2019 11:31:07 AM	46985
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/20/2019 1:45:49 PM	46891
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/20/2019 1:45:49 PM	46891
Surr: DNOP	104	70-130		%Rec	1	8/20/2019 1:45:49 PM	46891
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/18/2019 2:17:02 PM	46868
Surr: BFB	100	77.4-118		%Rec	1	8/18/2019 2:17:02 PM	46868
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	8/18/2019 2:17:02 PM	46868
Toluene	ND	0.049		mg/Kg	1	8/18/2019 2:17:02 PM	46868
Ethylbenzene	ND	0.049		mg/Kg	1	8/18/2019 2:17:02 PM	46868
Xylenes, Total	ND	0.098		mg/Kg	1	8/18/2019 2:17:02 PM	46868
Surr: 4-Bromofluorobenzene	93.2	80-120		%Rec	1	8/18/2019 2:17:02 PM	46868

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL	Practical Quantitative Limit	RL Reporting Limit
S	% Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1908959**

Date Reported: **8/23/2019**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** ENSOLUM

**Client Sample ID:** S-6

**Project:** Lateral H 8

**Collection Date:** 8/15/2019 11:00:00 AM

**Lab ID:** 1908959-003

**Matrix:** SOIL

**Received Date:** 8/16/2019 7:57:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Chloride	ND	60		mg/Kg	20	8/22/2019 12:33:11 PM	46985
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/20/2019 2:10:02 PM	46891
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/20/2019 2:10:02 PM	46891
Surr: DNOP	97.7	70-130		%Rec	1	8/20/2019 2:10:02 PM	46891
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/18/2019 2:39:56 PM	46868
Surr: BFB	104	77.4-118		%Rec	1	8/18/2019 2:39:56 PM	46868
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	8/18/2019 2:39:56 PM	46868
Toluene	ND	0.049		mg/Kg	1	8/18/2019 2:39:56 PM	46868
Ethylbenzene	ND	0.049		mg/Kg	1	8/18/2019 2:39:56 PM	46868
Xylenes, Total	ND	0.098		mg/Kg	1	8/18/2019 2:39:56 PM	46868
Surr: 4-Bromofluorobenzene	93.1	80-120		%Rec	1	8/18/2019 2:39:56 PM	46868

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1908959

23-Aug-19

**Client:** ENSOLUM

**Project:** Lateral H 8

Sample ID: <b>MB-46985</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>46985</b>	RunNo: <b>62350</b>								
Prep Date: <b>8/22/2019</b>	Analysis Date: <b>8/22/2019</b>	SeqNo: <b>2119770</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-46985</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>46985</b>	RunNo: <b>62350</b>								
Prep Date: <b>8/22/2019</b>	Analysis Date: <b>8/22/2019</b>	SeqNo: <b>2119771</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.0	90	110			

**Qualifiers:**

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| PQL Practical Quantitative Limit                        | RL Reporting Limit                                |
| S % Recovery outside of range due to dilution or matrix |   |

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**WO#: **1908959**

23-Aug-19

**Client:** ENSOLUM**Project:** Lateral H 8

Sample ID: <b>MB-46891</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>46891</b>	RunNo: <b>62265</b>								
Prep Date: <b>8/19/2019</b>	Analysis Date: <b>8/20/2019</b>	SeqNo: <b>2115636</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.3		10.00		93.4	70	130			

Sample ID: <b>LCS-46891</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>46891</b>	RunNo: <b>62265</b>								
Prep Date: <b>8/19/2019</b>	Analysis Date: <b>8/20/2019</b>	SeqNo: <b>2115637</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	90.9	63.9	124			
Surr: DNOP	4.4		5.000		87.6	70	130			

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1908959

23-Aug-19

**Client:** ENSOLUM

**Project:** Lateral H 8

Sample ID: <b>MB-46868</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>46868</b>	RunNo: <b>62216</b>								
Prep Date: <b>8/17/2019</b>	Analysis Date: <b>8/18/2019</b>	SeqNo: <b>2112812</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	980		1000		97.6	77.4	118			

Sample ID: <b>LCS-46868</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>46868</b>	RunNo: <b>62216</b>								
Prep Date: <b>8/17/2019</b>	Analysis Date: <b>8/18/2019</b>	SeqNo: <b>2112813</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.0	80	120			
Surr: BFB	1100		1000		115	77.4	118			

**Qualifiers:**

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| PQL Practical Quantitative Limit                        | RL Reporting Limit                                |
| S % Recovery outside of range due to dilution or matrix |   |

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**WO#: **1908959**

23-Aug-19

**Client:** ENSOLUM**Project:** Lateral H 8

Sample ID: <b>MB-46868</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>46868</b>	RunNo: <b>62216</b>								
Prep Date: <b>8/17/2019</b>	Analysis Date: <b>8/18/2019</b>	SeqNo: <b>2112829</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.90		1.000		89.8	80	120			

Sample ID: <b>LCS-46868</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>46868</b>	RunNo: <b>62216</b>								
Prep Date: <b>8/17/2019</b>	Analysis Date: <b>8/18/2019</b>	SeqNo: <b>2112830</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	94.4	80	120			
Toluene	0.97	0.050	1.000	0	96.9	80	120			
Ethylbenzene	0.99	0.050	1.000	0	98.6	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.7	80	120			
Surr: 4-Bromofluorobenzene	0.96		1.000		95.6	80	120			

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix		



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: ENSOLUM AZTEC

Work Order Number: 1908959

RcptNo: 1

Received By: Anne Thorne

8/16/2019 7:57:00 AM

Handwritten signature of Anne Thorne

Completed By: Erin Melendrez

8/17/2019 10:58:33 AM

Handwritten signature of Erin Melendrez

Reviewed By: YG 8/17/19

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [ ] Not Present [ ]
2. How was the sample delivered? Courier

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [ ] NA [ ]
4. Were all samples received at a temperature of >0° C to 6.0°C Yes [checked] No [ ] NA [ ]
5. Sample(s) in proper container(s)? Yes [checked] No [ ]
6. Sufficient sample volume for indicated test(s)? Yes [checked] No [ ]
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No [ ]
8. Was preservative added to bottles? Yes [ ] No [checked] NA [ ]
9. VOA vials have zero headspace? Yes [ ] No [ ] No VOA Vials [checked]
10. Were any sample containers received broken? Yes [ ] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No [ ]
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No [ ]
13. Is it clear what analyses were requested? Yes [checked] No [ ]
14. Were all holding times able to be met? Yes [checked] No [ ]

# of preserved bottles checked for pH: (<2 or >12 unless noted) Adjusted? Checked by: ENM 8/17/19

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [ ] No [ ] NA [checked]

Person Notified: [ ] Date: [ ]
By Whom: [ ] Via: [ ] eMail [ ] Phone [ ] Fax [ ] In Person [ ]
Regarding: [ ]
Client Instructions: [ ]

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 1.0, Good, Yes, [ ], [ ], [ ]

