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	
District RP	
Facility ID	
Application ID	

# **Release Notification**

			Respo	onsible Part	y	
Responsible	Party: <b>Ente</b>	rprise Field Serv	vices, LLC	OGRID: 2	241602	
Contact Nam	ne: <b>Thomas</b>	e: Thomas Long Contact Telephone: 505-599-2286		9-2286		
Contact ema	il: <b>tjlong@e</b> j	@eprod.com		Incident	Incident # (assigned by OCD): nAPP2134029025	
Contact mail <b>87401</b>	ing address:	614 Reilly Ave,	Farmington, NN	Λ		
			Location	of Release S	ource	
Latitude <u>36.3</u>	355236		Longitude	-107.420832	(NAD	83 in decimal degrees to 5 decimal places)
Site Name <b>6L</b>	4 Lateral			Site Type I	Natural Gas Gat	thering Pipeline
Date Release	Discovered:	vered: <b>11/30/2021</b>		Serial Nun	nber (if applicable):	N/A
Unit Letter	Section	Township	Range	Cour	nty	
K	36	25N	6W	Rio Aı	rriba	
Surface Owne	r: 🛭 State	Federal Tr	ibal Private (N			)
				Volume of 1		
Crude Oi		Volume Released		calculations or specific	Volume Recove	red (bbls)
Produced	Water	Volume Released (bbls)  Volume Recovered (bbls)		red (bbls)		
		Is the concentrate produced water	ion of dissolved ch >10,000 mg/l?	loride in the	Yes No	
Condensa	ite		d (bbls): Estimat	ed 5-10 BBLs	Volume Recove	red (bbls): None
Natural G	as	Volume Release	d (Mcf): <b>3.6 MCF</b>		Volume Recove	red (Mcf): None
Other (de	escribe)	Volume/Weight	Released (provide	units):	Volume/Weight	Recovered (provide units)
						s liquids from the 6L-4 Lateral pipeline.

Cause of Release On November 30, 2021, Enterprise had a release of natural gas and natural gas liquids from the 6L-4 Lateral pipeline. The pipeline was isolated, depressurized, locked and tagged out. An area of approximately 15 feet long by six inches wide was impacted by the released fluids. No washes were affected. No residences were affected. No fire was present. No emergency services responded. On December 3, 2021, Enterprise determined the release reportable due the volume of impacted subsurface soil. Remediation was completed on December 13, 2021. The final excavation dimensions measured approximately 43.5 feet long by 37 feet wide by 10 feet deep. Approximately 217 cubic yards of hydrocarbon impacted soil was excavated and transported to a New Mexico Oil Conservation Division (NMOCD) approved land farm. A third party closure report is included with this "Final." C-141.

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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 Attach	ment Checklist: Each of the follow	ving items must be incl	uded in the closure report.	
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 remed	diation activities			
and regulations all operate may endanger public heal should their operations ha human health or the envircompliance with any other restore, reclaim, and re-veaccordance with 19.15.29.  Printed Name: Thomas Lo	ors are required to report and/or file of the or the environment. The acceptant we failed to adequately investigate an comment. In addition, OCD acceptant or federal, state, or local laws and/or regetate the impacted surface area to the state of the st	certain release notification of a C-141 report by and remediate contaminate of a C-141 report door regulations. The responsible conditions that exist the OCD when reclamate Title: Senior Environments.  Date: 2-15-20		
O CD O I				
OCD Only				
Received by:		Date:		
remediate contamination t		rface water, human heal	their operations have failed to adequately investigate and th, or the environment nor does not relieve the responsible	
Closure Approved by:	Nelson Velez	Date: _	06/23/2022	
Printed Name:	osure Approved by: Nelson Velez  Date: 06/23/2022  Title: Environmental Specialist – Adv			



### **CLOSURE REPORT**

Property:

6L-4 Lateral (11/30/21) Unit Letter K, S36 T25N R6W Rio Arriba County, New Mexico

### NM EMNRD OCD Incident ID No. NAPP2134029025

February 11, 2022 Ensolum Project No. 05A1226171

Prepared for:

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

Prepared by:

Ranee Deechilly Project Manager Kyle Summers Senior Project Manager



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Appendix G: Laboratory Data Sheets & Chain of Custody Documentation

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#### 1.0 INTRODUCTION

### 1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
Site Name:	6L-4 Lateral (11/30/21) (Site)
NM EMNRD OCD Incident ID No.	NAPP2134029025
Location:	36.355236° North, 107.420832° West Unit Letter K, Section 36, Township 25 North, Range 6 West Rio Arriba County, New Mexico
Property:	New Mexico State Land
Regulatory:	New Mexico (NM) Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On November 30, 2021, Enterprise discovered a leak on the 6L-4 Lateral pipeline. Enterprise verified the leak, and subsequently isolated and locked the pipeline out of service. On December 1, 2021, Enterprise initiated activities to repair the pipeline and remediate potential petroleum hydrocarbon impact.

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 NM EMNRD OCD closure criteria.

### 2.0 CLOSURE CRITERIA

The Site is subject to regulatory oversight by the NM EMNRD OCD. To address activities related to oil and gas releases, the NM EMNRD OCD references NM Administrative Code (NMAC) 19.15.29 *Releases*, which establishes investigation and abatement action requirements for oil and gas release sites that are subject to reporting and/or corrective action. Ensolum, LLC (Ensolum) utilized information provided by Enterprise, the general site characteristics, and information available from the NM Office of the State Engineer (OSE) and the NM EMNRD OCD imaging database to determine the appropriate closure criteria for the Site. Supporting figures and documentation associated with the following Siting bullets are provided in **Appendix B**.

- The OSE tracks the usage and assignment of water rights and water well installations and records this information in the Water Rights Reporting System (WRRS) database. Water wells and other points of diversion (PODs) are each assigned POD numbers in the database (which is searchable and includes an interactive map). No PODs were identified within one mile of the Site, and no PODs were identified in the adjacent Public Land Survey System (PLSS) sections (Figure A, Appendix B).
- One cathodic protection well (CPW) was identified in the NM EMNRD OCD imaging database in the adjacent PLSS section. The approximate location of the CPW is depicted on Figure B (Appendix B). The CPW is associated with the Canyon Largo #111 and #87 oil/gas production



wells and is approximately 0.82 miles southeast of the Site and is 209 feet lower in elevation than the Site, with a reported depth to water of 115 feet below grade surface (bgs).

- The Site is not located within 300 feet of a NM EMNRD OCD-defined continuously flowing watercourse or significant watercourse (Figure C, Appendix B).
- The Site is not located within 200 feet of a lakebed, sinkhole, or playa lake.
- The Site is not located within 300 feet of a permanent residence, school, hospital, institution, or church (Figure D, Appendix B).
- No springs, or private domestic fresh water wells used by less than five households for domestic or stock watering purposes were identified within 500 feet of the Site (**Figure E**, **Appendix B**).
- No fresh water wells or springs were identified within 1,000 feet of the Site (Figure E, Appendix B).
- 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 New Mexico Statutes Annotated (NMSA) 1978, Section 3-27-3.
- Based on information identified in the U.S. Fish & Wildlife Service National Wetlands Inventory Wetlands Mapper, the Site is not located within 300 feet of a wetland (Figure F, Appendix B).
- Based on information identified in the NM Mining and Minerals Division's Geographic Information System (GIS) Maps and Mine Data database, the Site not within an area overlying a subsurface mine (Figure G, Appendix B).
- The Site is not located within an unstable area.
- Based on information provided by the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) geospatial database the location of the Site is not located within a 100year floodplain (Figure H, Appendix B).

Based on available information, Enterprise estimates the depth to water at the Site to be greater than 50 feet bgs, resulting in a Tier II ranking. However, the soil requirements of NMAC 19.15.29.13(D)(1) indicate that a minimum of the upper four feet must contain "uncontaminated" soil and that the soils meet Tier I closure criteria listed in Table 1 of NMAC 19.15.29.12. Applicable closure criteria for soils (below four feet) remaining in place at the Site include:

Closure Criteria for Soils Impacted by a Release (Tier II)		
Constituent <sup>1</sup>	Method	Limit
Chloride	EPA 300.0 or SM4500 CI B	10,000 mg/kg
TPH (GRO+DRO+MRO) <sup>2</sup>	EPA SW-846 Method 8015	2,500 mg/kg
TPH (GRO+DRO)	EPA SW-846 Method 8015	1,000 mg/kg
BTEX <sup>3</sup>	EPA SW-846 Method 8021 or 8260	50 mg/kg
Benzene	EPA SW-846 Method 8021 or 8260	10 mg/kg

<sup>&</sup>lt;sup>1</sup> – Constituent concentrations are in milligrams per kilogram (mg/kg).

<sup>&</sup>lt;sup>2</sup> – Total Petroleum Hydrocarbons (TPH). Gasoline Range Organics (GRO). Diesel Range Organics (DRO). Motor Oil/Lube Oil Range Organics (MRO).

<sup>&</sup>lt;sup>3</sup> – Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX).



In addition, the closure criteria (reclamation requirements of NMAC 19.15.29.13(D)(1)) for the upper four feet of soils at the Site include:

Closure Criteria for Soils Impacted by a Release (Soil Zone)		
Constituent	Method	Limit
Chloride	EPA 300.0 or SM4500 CI 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 December 1, 2021, Enterprise initiated activities to remediate petroleum hydrocarbon impact resulting from the release. During the remediation and corrective action activities, OFT Construction Inc., (OFT), provided heavy equipment and labor support, while Ensolum provided environmental consulting support.

The final excavation measured approximately 43.5 feet long and 37 feet wide at the maximum extents. The maximum depth of the excavation measured approximately 10 feet bgs. The lithology encountered during the completion of remediation activities consisted primarily of unconsolidated silty sand and weathered sandstone.

Approximately 217 cubic yards (yd³) of petroleum hydrocarbon affected soils/sandstone and 60 barrels (bbls) of hydro-excavation soil cuttings and water were transported to the Envirotech, Inc., (Envirotech) landfarm near Hilltop, NM for disposal/remediation. The executed C-138 solid waste acceptance form is provided in **Appendix C**. The excavation was backfilled with imported fill, and the area was then compacted and contoured to the 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 D**.

### 4.0 SOIL SAMPLING PROGRAM

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

Ensolum's soil sampling program included the collection of 19 composite soil samples (S-1 through S-19) from the excavation for laboratory analysis. The composite samples were comprised of five aliquots each and represent an estimated 200 square foot (ft²) sample area per guidelines outlined in Section D of 19.15.29.12 NMAC. Hand tools and a backhoe, operated by OFT, were utilized to obtain fresh aliquots from each area of the excavation. Regulatory correspondence is provided in **Appendix E**.

### First Sampling Event

On December 8, 2021, the first sampling event was performed at the Site. The NM EMNRD OCD was notified of the sampling event although no representative was present during sampling activities. Composite soil sample S-1 (10') was collected from the floor of the excavation. Composite soil samples S-2 (4'-10'), S-3 (4'-10'), S-4 (0'-4'), S-5 (0'-4'), S-6 (4'-10'), S-7 (4'-10), S-8 (4'-10'), S-9 (4'-10'), S-10 (0'-4'), S-11 (0'-4'), and S-16 (0'-4') were collected from the benched or sloped walls of the excavation. Composite soil samples S-12 (0'-4') and S-13 (0'-4') were collected from the walls of the excavated flow path. Composite soil samples S-14 (4') and S-15 (4') were collected from the floor of the excavated flow path. Subsequent soil analytical results identified COC concentrations that exceeded the NM EMNRD OCD closure criteria



for composite soil samples S-2, S-3, and S-8. In response to the exceedances the excavation was extended laterally at the areas of impact. Soil associated with samples S-2, S-3, and S-8 were removed by excavation and transported to the landfarm.

### **Second Sampling Event**

On December 13, 2021, a second sampling event was performed. The NM EMNRD OCD was notified of the sampling event although no representative was present during sampling activities. Composite soil samples S-17 (4'-10'), S-18 (4'-10'), and S-19 (4'-10') were collected from the walls and floor of the extended excavation.

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

#### 5.0 SOIL LABORATORY ANALYTICAL METHODS

The composite soil samples were analyzed for BTEX using Environmental Protection Agency (EPA) SW-846 Method #8021; TPH GRO/DRO/MRO using EPA SW-846 Method #8015; and chlorides using EPA Method #300.0.

The laboratory analytical results are summarized in **Table 1A** and **Table 1B** (**Appendix F**). The laboratory data sheets and executed chain-of-custody forms are provided in **Appendix G**.

### 6.0 SOIL 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, S-4 through S-7, and S-9 through S-19) to the applicable NM EMNRD OCD closure criteria. The soils associated with composite soil samples S-2, S-3, and S-8 were removed from the Site, and therefore, are not included in the following discussion.

- The laboratory analytical results for composite soil samples S-7 and S-9 indicate benzene concentrations of 0.32 mg/kg and 0.51 mg/kg, respectively, which are less than the applicable New Mexico EMNRD OCD closure criteria of 10 mg/kg. The laboratory analytical results for all other composite soil samples collected from soils remaining at the Site indicate benzene is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the applicable NM EMNRD OCD closure criteria of 10 mg/kg.
- The laboratory analytical results for composite soil samples S-4, S-6, S-7, S-9, and S-10 indicate total BTEX concentrations ranging from 0.14 mg/kg (S-10) to 35 mg/kg (S-9), which are less than the applicable NM EMNRD OCD closure criteria of 50 mg/kg. The laboratory analytical results for all other composite soil samples collected from soils remaining at the Site indicate total BTEX is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the applicable NM EMNRD OCD closure criteria of 50 mg/kg.
- The laboratory analytical results for composite soil samples S-4, S-6, S-7, and S-9 indicate combined TPH GRO/DRO concentrations ranging from 22 mg/kg (S-6) to 280 mg/kg (S-7), which are less than the applicable New Mexico EMNRD OCD closure criteria of 100 mg/kg or 1,000 mg/kg depending on sample depth. The laboratory analytical results for all other composite soil samples collected from soils remaining at the Site indicate combined TPH GRO/DRO is not present at



concentrations greater than the laboratory PQLs/RLs, which are less than the applicable New Mexico EMNRD OCD closure criteria of 100 mg/kg or 1,000 mg/kg, depending on sample depth.

- The laboratory analytical results for composite soil samples S-4, S-6, S-7, and S-9 indicate combined TPH GRO/DRO/MRO concentrations ranging from 22 mg/kg (S-6) to 280 mg/kg (S-7), which are less than the applicable New Mexico EMNRD OCD closure criteria of 100 mg/kg or 2,500 mg/kg, depending on sample depth. The laboratory analytical results for all other composite soil samples collected from soils remaining at the Site indicate combined TPH GRO/DRO/MRO is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the applicable New Mexico EMNRD OCD closure criteria of 100 mg/kg or 2,500 mg/kg, depending on sample depth.
- The laboratory analytical results for all composite soil samples collected from soils remaining at the Site indicate chloride is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the applicable New Mexico EMNRD OCD closure criteria of 600 mg/kg or 10,000 mg/kg, depending on sample depth.

The laboratory analytical results are summarized in Table 1A and Table 1B (Appendix F).

### 7.0 RECLAMATION AND REVEGETATION

The excavation was backfilled with imported fill and was then contoured to surrounding grade. Enterprise will re-seed the Site with an approved seeding mixture.

### 8.0 FINDINGS AND RECOMMENDATION

- Nineteen composite soil samples were collected from the Site. Based on laboratory analytical results, no benzene, BTEX, chloride, or combined TPH GRO/DRO/MRO exceedances were identified in the soils remaining at the Site.
- Approximately 217 yd<sup>3</sup> of petroleum hydrocarbon affected soils/sandstone and 60 bbls of hydroexcavation soil cuttings and water were transported to the Envirotech landfarm for disposal/remediation. The excavation was backfilled with imported fill and then contoured to the 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 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 recommendation are based solely upon data available to Ensolum at the time of these services.

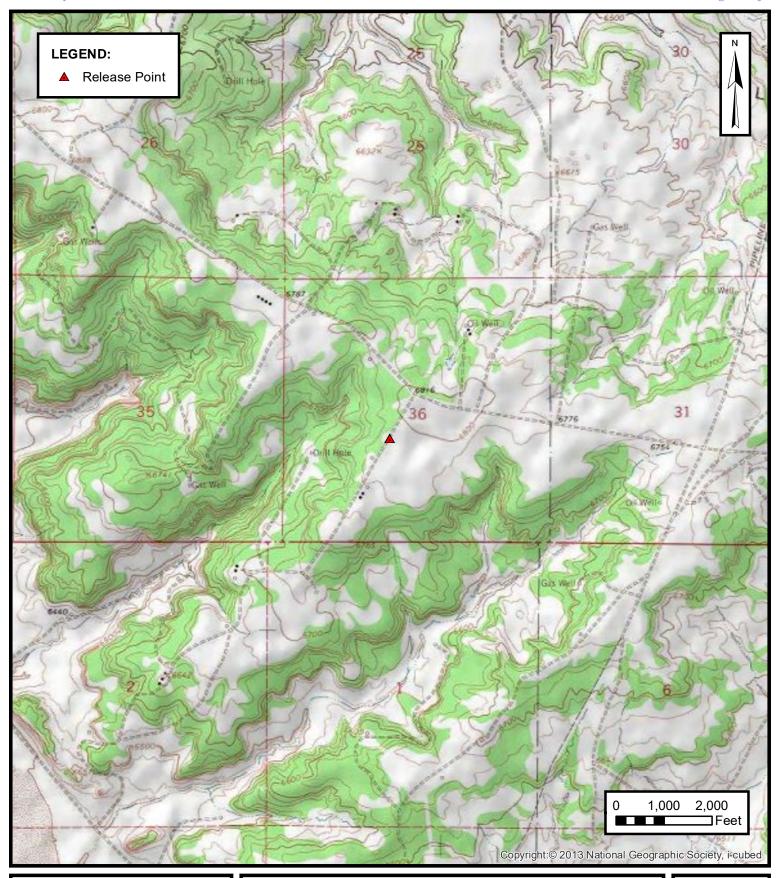
### 9.3 Reliance

This report has been prepared for the exclusive use of Enterprise, 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 of Enterprise and Ensolum. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the Closure Report, and Ensolum's Master Services Agreement. The limitation of liability defined in the agreement is the aggregate limit of Ensolum's liability to the client.



**APPENDIX A** 

Figures





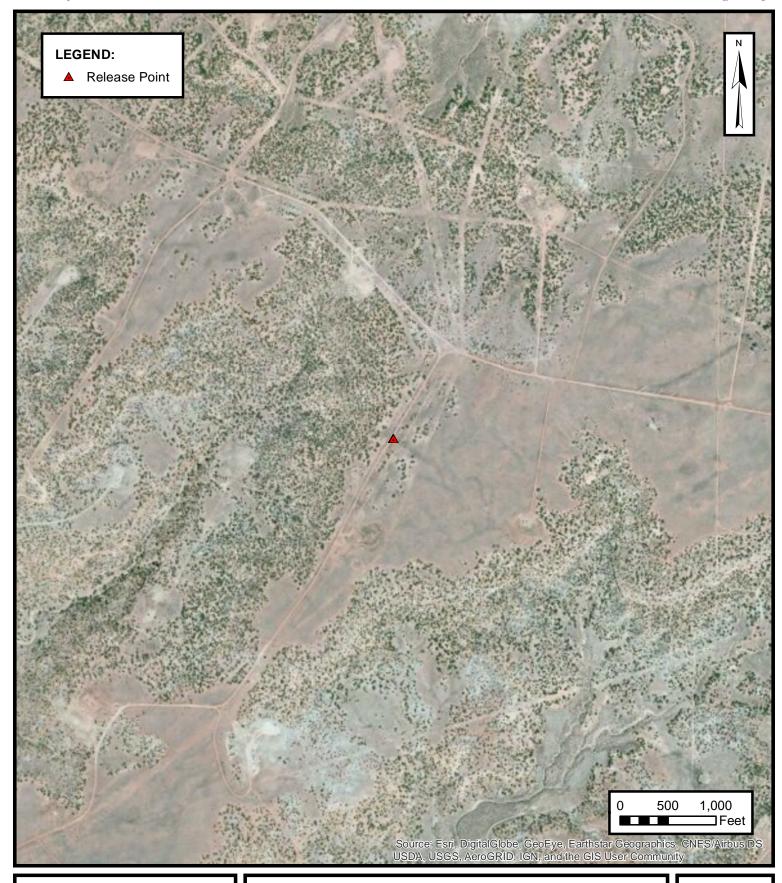
### **TOPOGRAPHIC MAP**

ENTERPRISE FIELD SERVICES, LLC 6L-4 LATERAL (11/30/21) Unit Letter K, S36 T25N R6W, Rio Arriba County, New Mexico 36.355236° N, 107.420832° W

PROJECT NUMBER: 05A1226171

**FIGURE** 

1





### SITE VICINITY MAP

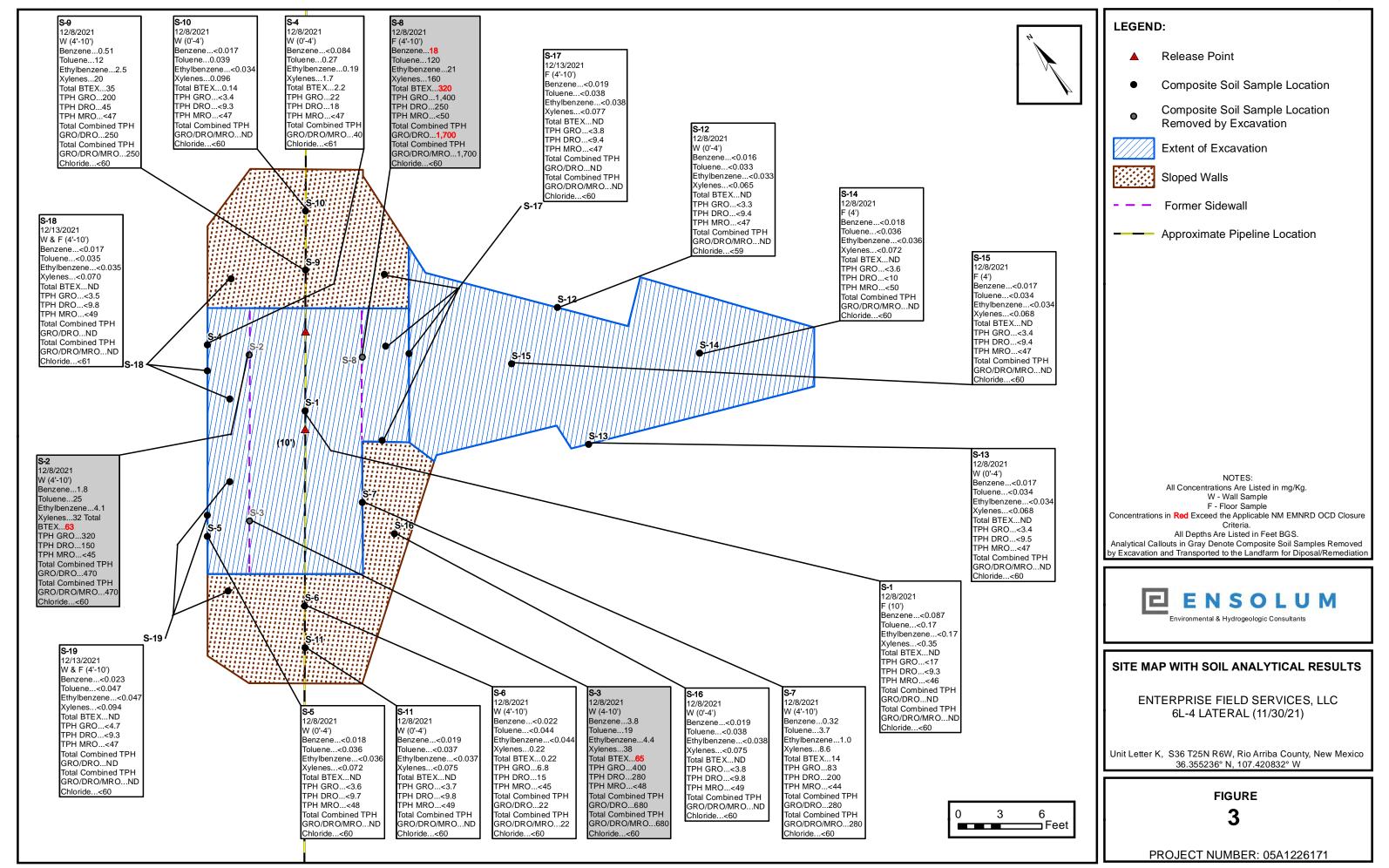
ENTERPRISE FIELD SERVICES, LLC 6L-4 LATERAL (11/30/21) Unit Letter K, S36 T25N R6W, Rio Arriba County, New Mexico 36.355236° N, 107.420832° W

PROJECT NUMBER: 05A1226171

**FIGURE** 

2

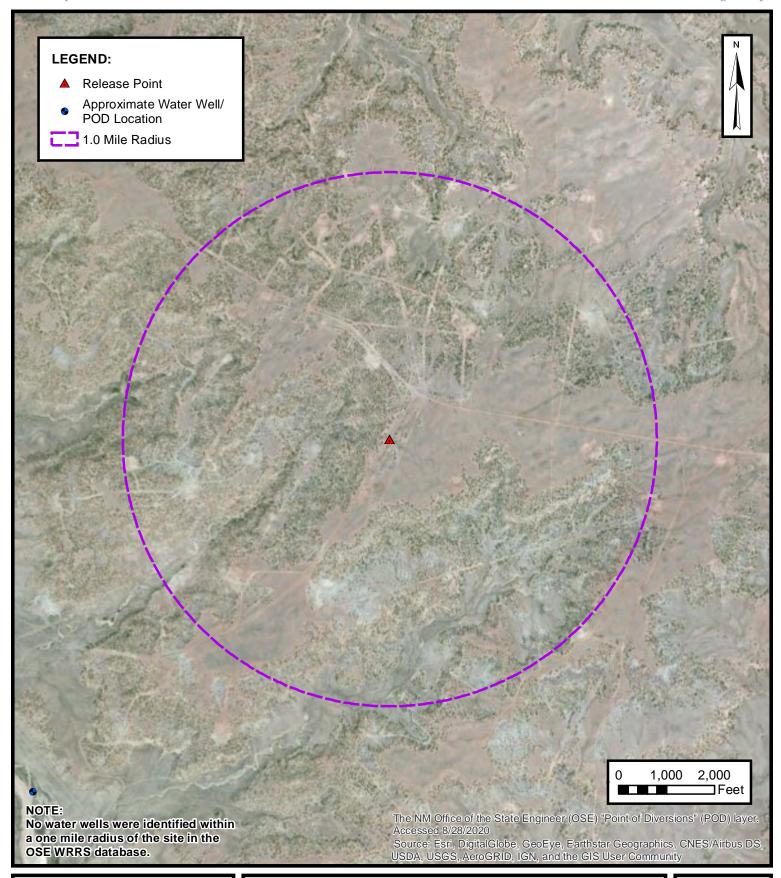
Received by OCD: 2/15/2022 8:03:54 AM





**APPENDIX B** 

Siting Figures and Documentation





### 1.0 MILE RADIUS WATER WELL/ POD LOCATION MAP

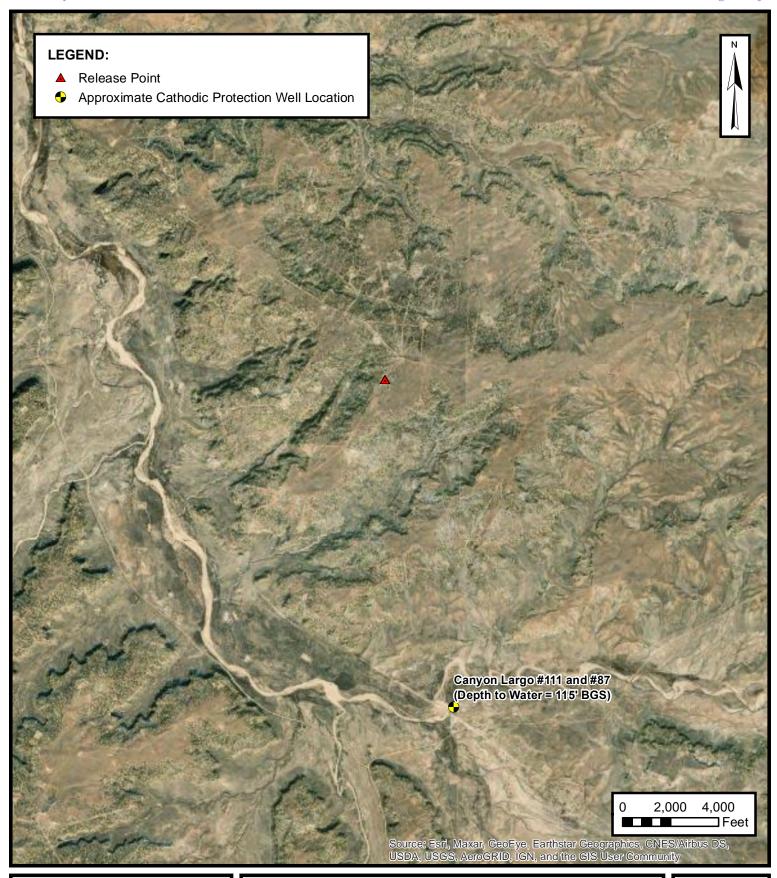
ENTERPRISE FIELD SERVICES, LLC 6L-4 LATERAL (11/30/21) Unit Letter K, S36 T25N R6W, Rio Arriba County, New Mexico

Unit Letter K, S36 T25N R6W, Rio Arriba County, New Mexico 36.355236° N, 107.420832° W

PROJECT NUMBER: 05A1226171

**FIGURE** 

A





# CATHODIC PROTECTION WELL RECORDED DEPTH TO WATER

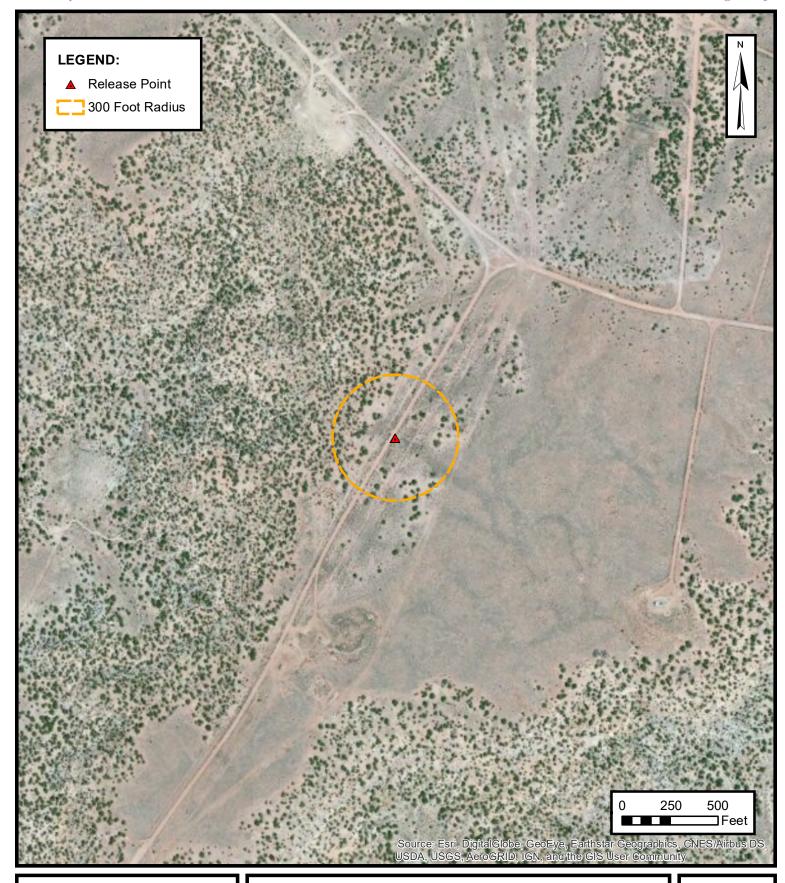
ENTERPRISE FIELD SERVICES, LLC 6L-4 LATERAL (11/30/21)

Unit Letter K, S36 T25N R6W, Rio Arriba County, New Mexico 36.355236° N, 107.420832° W

PROJECT NUMBER: 05A1226171

**FIGURE** 

B





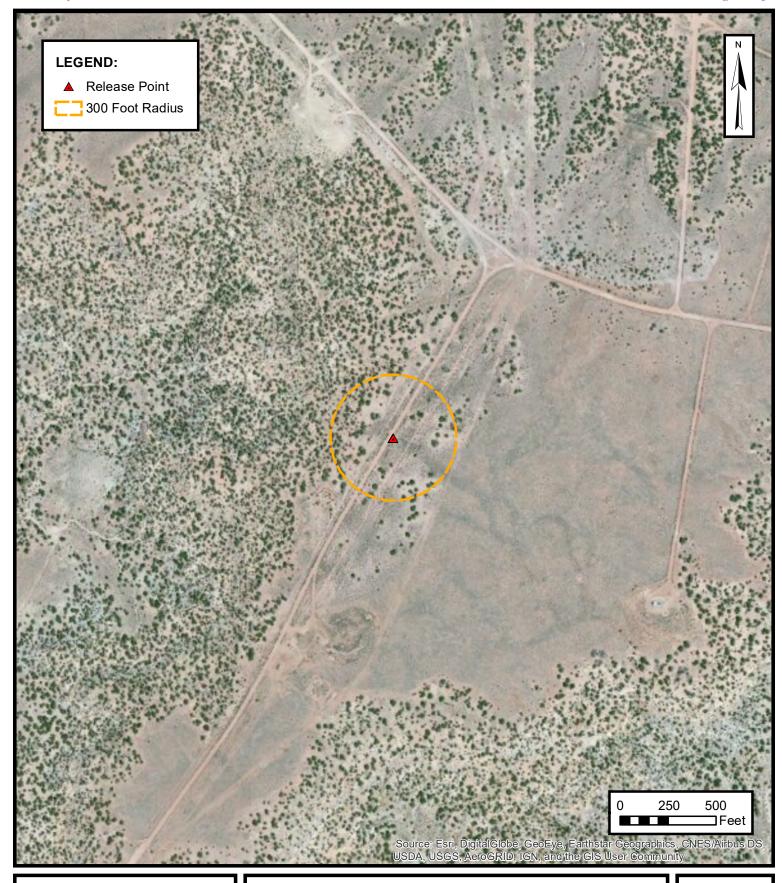
# 300 FOOT RADIUS WATERCOURSE AND DRAINAGE IDENTIFICATION

ENTERPRISE FIELD SERVICES, LLC 6L-4 LATERAL (11/30/21) Unit Letter K, S36 T25N R6W, Rio Arriba County, New Mexico 36.355236° N, 107.420832° W

PROJECT NUMBER: 05A1226171

**FIGURE** 

C





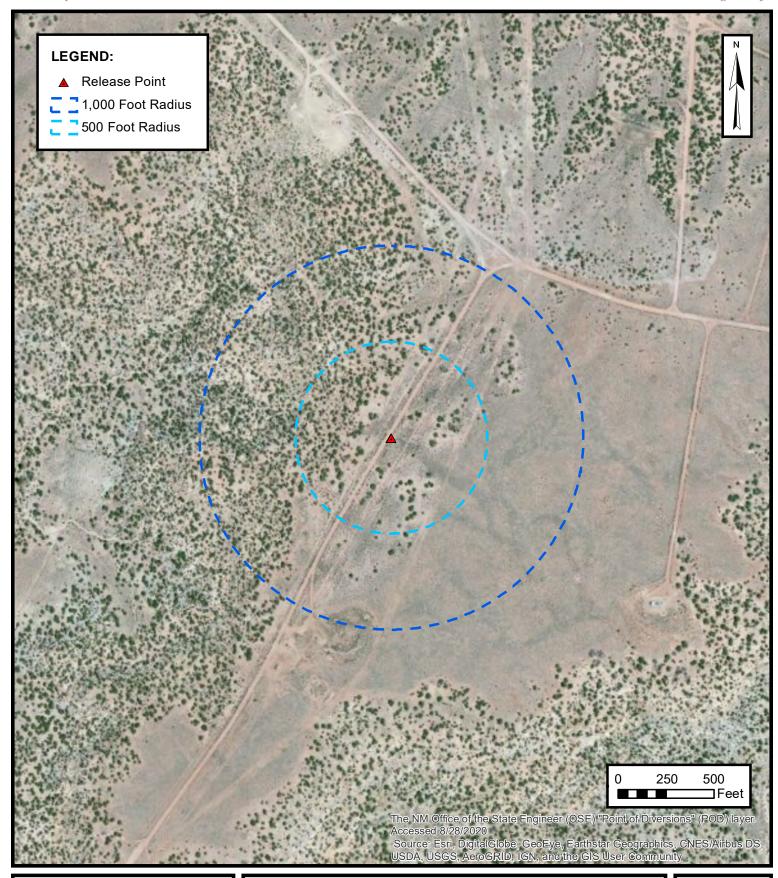
# 300 FOOT RADIUS OCCUPIED STRUCTURE IDENTIFICATION

ENTERPRISE FIELD SERVICES, LLC 6L-4 LATERAL (11/30/21) Unit Letter K, S36 T25N R6W, Rio Arriba County, New Mexico 36.355236° N, 107.420832° W

PROJECT NUMBER: 05A1226171

FIGURE

D





### WATER WELL AND NATURAL SPRING LOCATION

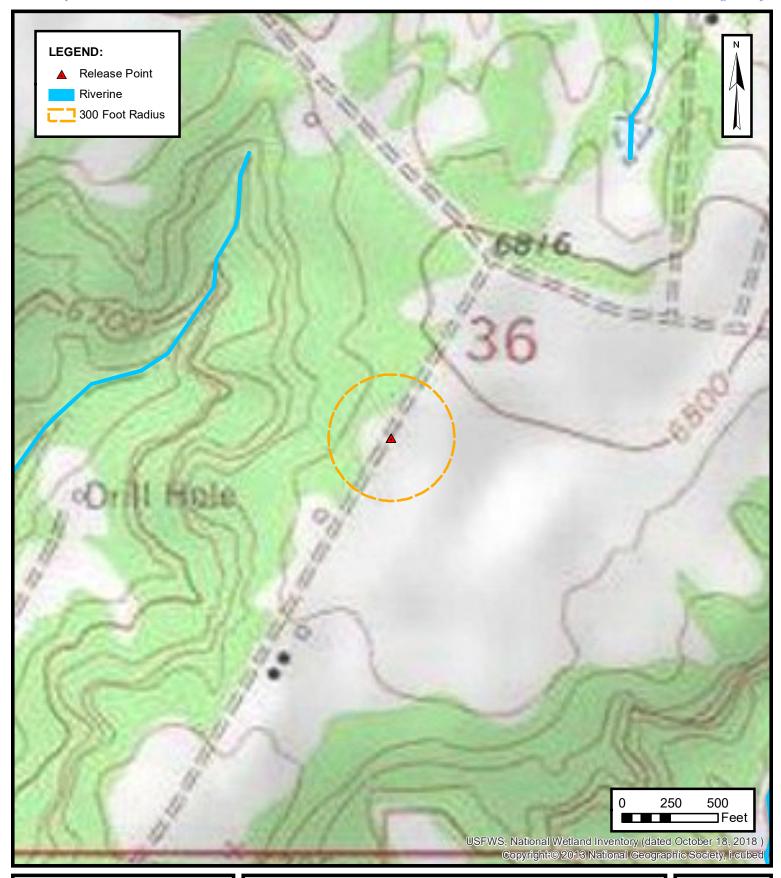
ENTERPRISE FIELD SERVICES, LLC 6L-4 LATERAL (11/30/21) Unit Letter K, S36 T25N R6W, Rio Arriba County, New Mexico

Unit Letter K, S36 T25N R6W, Rio Arriba County, New Mexico 36.355236° N, 107.420832° W

PROJECT NUMBER: 05A1226171

**FIGURE** 

E





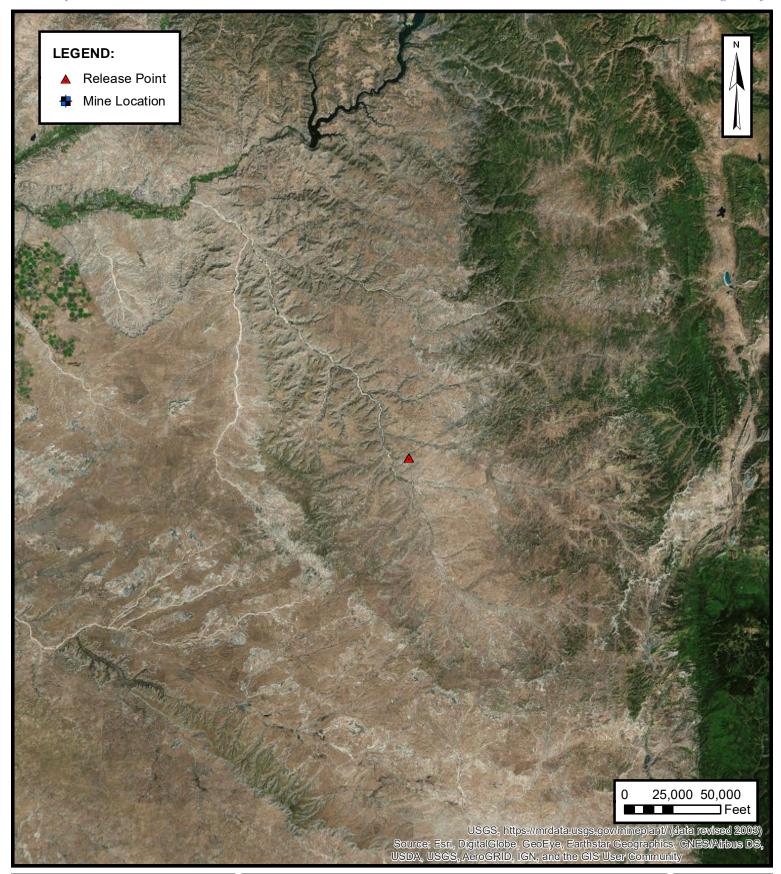
### **WETLANDS**

ENTERPRISE FIELD SERVICES, LLC 6L-4 LATERAL (11/30/21) Unit Letter K, S36 T25N R6W, Rio Arriba County, New Mexico 36.355236° N, 107.420832° W

PROJECT NUMBER: 05A1226171

**FIGURE** 

F





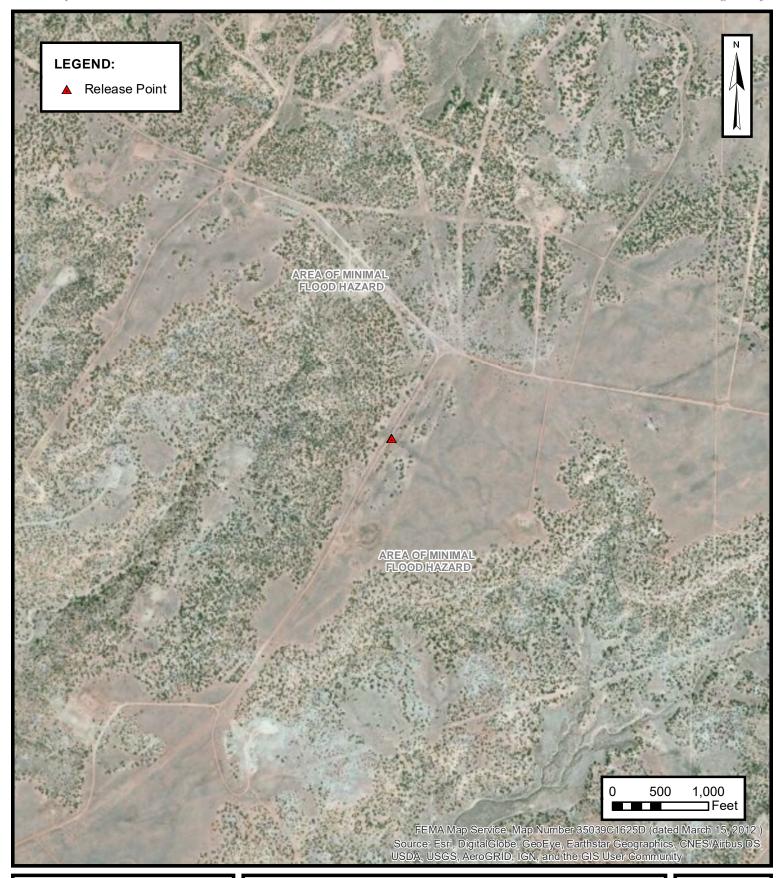
### MINES, MILLS AND QUARRIES

ENTERPRISE FIELD SERVICES, LLC 6L-4 LATERAL (11/30/21) Unit Letter K, S36 T25N R6W, Rio Arriba County, New Mexico 36.355236° N, 107.420832° W

PROJECT NUMBER: 05A1226171

**FIGURE** 

G





### **100-YEAR FLOOD PLAIN MAP**

ENTERPRISE FIELD SERVICES, LLC 6L-4 LATERAL (11/30/21) Unit Letter K, S36 T25N R6W, Rio Arriba County, New Mexico 36.355236° N, 107.420832° W

PROJECT NUMBER: 05A1226171

**FIGURE** 

Н



No records found.

**PLSS Search:** 

**Section(s):** 36, 25, 26, 35 **Township:** 25N **Range:** 06W

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability for any particular purpose of the data.



No records found.

**PLSS Search:** 

Section(s): 30, 31 Township: 25N Range: 05W

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability for any particular purpose of the data.

**DEPTH TO WATER** 



No records found.

**PLSS Search:** 

Section(s): 6 Township: 24N Range: 05W

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



No records found.

**PLSS Search:** 

Section(s): 1, 2 Township: 24N Range: 06W

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability for any particular purpose of the data.



# DATA SHEET FOR DEEP GROUND BED CATHODIC. PROTECTION WELLS NORTHWESTERN NEW MEXICO

Operator Mevidian Oil INC. Location: Unit G Sec	.01 Twp242ng 06
Name of Well/Wells.or Pipeline Serviced	• • • • • • • • • • • • • • • • • • • •
CANYON LATGO #111 AND#87	
Elevation 6586 Completion Date 6/2/95 Total Depth 425	Land Type P
Casing Strings, Sizes, Types & Depths4/1 Set 99 OF	B'PUC CASING.
NO GAS, WATER, or Boulders Were. ENCOUNTERED DUR	ing Casing.
If Casing Strings are cemented, show amounts & types use	à Cemented
WITH 19 SACKS.	
If Cement or Bentonite Plugs have been placed, show dept	hs & amounts used
None	
Depths & thickness of water zones with description of wa	ter: Fresh, Clear,
Salty, Sulphur, Etc. HIT Fresh WATER AT 115.	
Depths gas encountered: None	
Ground bed depth with type & amount of coke breeze used:	: 425 DepTH.
Used 105 SACKS OF ASBURY 218R (5250#)	
Depths anodes placed: 396,386,375,365,354,345,335,325,315,285,	275,250,240,230, +185
Depths vent pipes placed: Surface To 425.	
Vent pipe perforations: Bottom 300.	DEGERAEW
Remarks:	JAN 1 1 1996
	OIL COM. DIV.
	DITI. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

Land Type may be shown: F-Federal: I-Indian: S-State: P-Fee. If Federal or Indian, add Lease Number.



**APPENDIX C** 

Executed C-138 Solid Waste Acceptance Form

<u>District I</u>
1625 N. French Dr., Hobbs, NM 88240
<u>District II</u>
1301 W. Grand Avenue, Artesia, NM 88210
<u>District III</u>
1000 Rio Brazos Road, Aztec, NM 87410
<u>District IV</u>
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.

Form C-138 Revised 08/01/11

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

# Fe, NM 87505 Santa Fe, NM 87505 GOCUMENTALINA SANTA SA

THE GENERAL TO THE ENTRY WHEN I
1. Generator Name and Address: Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401 PayKey: RB21200 PM:Dwayne Dixon AFE: Pending
2. Originating Site: 6L-4 Lateral
3. Location of Material (Street Address, City, State or ULSTR): UL K Section 36 T25N R6W; 36.355236, -107.420832  Dec 2021
4. Source and Description of Waste:
Source: Remediation activities associated with a natural gas pipeline leak.
Description: Hydrocarbon/Condensate impacted soil and liquids associated natural gas pipeline release.  Estimated Volume 20 yd bbls Known Volume (to be entered by the operator at the end of the haul) 217/60 yd bbls
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS
I, 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  11-29-2021, representative for Enterprise Products Operating authorizes Envirotech, Inc. to complete  Generator Signature the required testing/sign the Generator Waste Testing Certification.
I, Greg Crabree , 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: TBD Riley, STAN Horn, OFT, CFOM
OCD Permitted Surface Waste Management Facilitý
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: Gray Crubtree  SIGNATURE: SIGNATURE: Surface Waste Management Facility Authorized Agent  TITLE: Enviro MAnagement DATE: 12/1/21  TELEPHONE NO.:  505-632-0615



APPENDIX D

Photographic Documentation

### SITE PHOTOGRAPHS

Closure Report Enterprise Field Services, LLC 6L-4 Lateral (11/30/21) Ensolum Project No. 05A1226171



### Photograph 1

Photograph Description: View of in-process excavation activities.



## Photograph 2

Photograph Description: View of in-process excavation activities.



### Photograph 3

Photograph Description: View of in-process excavation activities.



### **SITE PHOTOGRAPHS**

Closure Report Enterprise Field Services, LLC 6L-4 Lateral (11/30/21) Ensolum Project No. 05A1226171



### Photograph 4

Photograph Description: View of the excavated flow path (first sampling event).



## Photograph 5

Photograph Description: View of the excavation (first sampling event).



### Photograph 6

Photograph Description: View of the excavation (second sampling event).



### **SITE PHOTOGRAPHS**

Closure Report Enterprise Field Services, LLC 6L-4 Lateral (11/30/21) Ensolum Project No. 05A1226171



### Photograph 7

Photograph Description: View of the excavation (second sampling event).



## Photograph 8

Photograph Description: View of the site after initial restoration.





**APPENDIX E** 

Regulatory Correspondence

From: Smith, Cory, EMNRD

To: Long, Thomas

Cc: Stone, Brian; Velez, Nelson, EMNRD

Subject: RE: [EXTERNAL] FW: 6L-4 Lateral - UL K Section 36 T25N R6W; 36.355236, -107.420832 - Incident

#nAPP2134029025

**Date:** Monday, December 13, 2021 10:10:36 AM

#### [Use caution with links/attachments]

Tom.

Please go ahead and proceed with sampling today.

Thanks for calling and providing us with an update.

Cory Smith
Environmental Specialist Supervisor
Oil Conservation Division
Energy, Minerals, & Natural Resources
Albuquerque Office
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Long, Thomas <tjlong@eprod.com>
Sent: Monday, December 13, 2021 10:06 AM

To: Smith, Cory, EMNRD < Cory. Smith@state.nm.us>

Cc: Stone, Brian <br/> <br/> bmstone@eprod.com>

Subject: [EXTERNAL] FW: 6L-4 Lateral - UL K Section 36 T25N R6W; 36.355236, -107.420832 -

Incident #nAPP2134029025

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

Cory,

Please find the attached site sketch and lab report for the 6L-4 Lateral excavation. As previously discussed, three areas exceed NMOCD remediation standards. As previously mentioned, I was requesting a variance for the required sample notification and would like to collected soil samples today, so we can finish the remediation of this release. I called Nelson Velez and left a message. I have not heard back. Please let me know if sampling today is acceptable. If you have any questions, please call or email.

Thomas J. Long Senior Environmental Scientist Enterprise Products Company 614 Reilly Ave. Farmington, New Mexico 87401 505-599-2286 (office) 505-215-4727 (Cell)

#### tjlong@eprod.com



From: Long, Thomas

Sent: Tuesday, December 7, 2021 9:33 AM

To: 'Smith, Cory, EMNRD (<a href="mailto:Cory.Smith@state.nm.us">Cory.Smith@state.nm.us</a>; 'Johnson, David'

<diohnson@slo.state.nm.us>

**Cc:** Stone, Brian < bmstone@eprod.com>

Subject: 6L-4 Lateral - UL K Section 36 T25N R6W; 36.355236, -107.420832 - Incident

#nAPP2134029025

Cory/David,

This email is a notification that Enterprise will be collecting soil samples for laboratory analysis at the 6L-4 Lateral excavation tomorrow, December 8, 2021 at 9:00 a.m. If you have any questions, please call or email.

Thomas J. Long
Senior Environmental Scientist
Enterprise Products Company
614 Reilly Ave.
Farmington, New Mexico 87401
505-599-2286 (office)
505-215-4727 (Cell)
tilong@eprod.com



This message (including any attachments) is confidential and intended for a specific individual and purpose. If you are not the intended recipient, please notify the sender immediately and delete this message.



**APPENDIX F** 

**Tables** 



# TABLE 1A 6L-4 Lateral (11/30/21) SOIL ANALYTICAL SUMMARY (SOIL ZONE: CONTAINS ALIQUOTS FROM < 4 FEET BGS)

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 <sup>1</sup> (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total Combined TPH (GRO/DRO/MRO) <sup>1</sup> (mg/kg)	Chloride (mg/kg)
		Natural Resource on Closure Criteria		10	NE	NE	NE	50				100	600
					E	ccavation Com	posite Soil Sa	amples					
S-4	12.08.21	С	0 to 4	<0.084	0.27	0.19	1.7	2.2	22	18	<47	40	<61
S-5	12.08.21	С	0 to 4	<0.018	<0.036	<0.036	<0.072	ND	<3.6	<9.7	<48	ND	<60
S-10	12.08.21	С	0 to 4	<0.017	0.039	<0.034	0.096	0.14	<3.4	<9.3	<47	ND	<60
S-11	12.08.21	С	0 to 4	<0.019	<0.037	<0.037	<0.075	ND	<3.7	<9.8	<49	ND	<60
S-12	12.08.21	С	0 to 4	<0.016	<0.033	<0.033	<0.065	ND	<3.3	<9.4	<47	ND	<59
S-13	12.08.21	С	0 to 4	<0.017	<0.034	<0.034	<0.068	ND	<3.4	<9.5	<47	ND	<60
S-14	12.08.21	С	4	<0.018	<0.036	<0.036	<0.072	ND	<3.6	<10	<50	ND	<60
S-15	12.08.21	С	4	<0.017	<0.034	<0.034	<0.068	ND	<3.4	<9.4	<47	ND	<60
S-16	12.08.21	С	0 to 4	<0.019	<0.038	<0.038	<0.075	ND	<3.8	<9.8	<49	ND	<60

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

ND = Not Detected above the Practical Quantitation Limits (PQLs) or Reporting Limits (RLs)

NA = Not Analyzed

NE = Not established

mg/kg = milligram per kilogram

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes

TPH = Total Petroleum Hydrocarbons

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil/Lube Oil Range Organics

<sup>1 =</sup> Total combined concentrations are rounded to two (2) significant figures to match the laboratory resolution of the individual constituents.



# TABLE 1B 6L-4 Lateral (11/30/21) SOIL ANALYTICAL SUMMARY (CONTAINS ONLY ALIQUOTS FROM >4 FEET BGS)

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 <sup>1</sup> (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total Combined TPH (GRO/DRO) <sup>1</sup> (mg/kg)	Total Combined TPH (GRO/DRO/MRO) <sup>1</sup> (mg/kg)	Chloride (mg/kg)
		Natural Resource	•	10	NE	NE	NE	50				1,000	2,500	10,000
			Co	mposite Soil	Samples Rem	oved by Excav	ation and Tra	ansported to t	ne Landfarm f	or Diposal/Re	mediation			
S-2	12.08.21	С	4 to 10	1.8	25	4.1	32	63	320	150	<45	470	470	<60
S-3	12.08.21	С	4 to 10	3.8	19	4.4	38	65	400	280	<48	680	680	<60
S-8	12.08.21	С	4 to 10	18	120	21	160	320	1,400	250	<50	1,700	1,700	<60
						Excavat	tion Composi	te Soil Sample	s					
S-1	12.08.21	С	10	<0.087	<0.17	<0.17	<0.35	ND	<17	<9.3	<46	ND	ND	<60
S-6	12.08.21	С	4 to 10	<0.022	<0.044	<0.044	0.22	0.22	6.8	15	<45	22	22	<60
S-7	12.08.21	С	4 to 10	0.32	3.7	1.0	8.6	14	83	200	<44	280	280	<60
S-9	12.08.21	С	4 to 10	0.51	12	2.5	20	35	200	45	<47	250	250	<60
S-17	12.13.21	С	4 to 10	<0.019	<0.038	<0.038	<0.077	ND	<3.8	<9.4	<47	ND	ND	<60
S-18	12.13.21	С	4 to 10	<0.017	< 0.035	<0.035	<0.070	ND	<3.5	<9.8	<49	ND	ND	<61
S-19	12.13.21	С	4 to 10	<0.023	<0.047	<0.047	<0.094	ND	<4.7	<9.3	<47	ND	ND	<60

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

ND = Not Detected above the Practical Quantitation Limits (PQLs) or Reporting Limits (RLs)

NA = Not Analyzed

NE = Not established

mg/kg = milligram per kilogram

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes

TPH = Total Petroleum Hydrocarbons

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil/Lube Oil Range Organics

<sup>1 =</sup> Total combined concentrations are rounded to two (2) significant figures to match the laboratory resolution of the individual constituents.



### **APPENDIX G**

Laboratory Data Sheets & Chain of Custody Documentation



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

December 15, 2021

Kyle Summers ENSOLUM 606 S. Rio Grande Suite A Aztec, NM 87410

TEL: (903) 821-5603 FAX

RE: 6L 4 Lateral OrderNo.: 2112589

#### Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 16 sample(s) on 12/9/2021 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 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,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order **2112589**Date Reported: **12/15/2021** 

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM Client Sample ID: S-1

**Project:** 6L 4 Lateral **Collection Date:** 12/8/2021 1:10:00 PM

**Lab ID:** 2112589-001 **Matrix:** MEOH (SOIL) **Received Date:** 12/9/2021 7:25:00 AM

Analyses	Result	PQL (	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: LRN
Chloride	ND	60	mg/Kg	20	12/10/2021 11:13:22 A	M 64396
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: SB
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	12/9/2021 10:49:36 AM	64391
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	12/9/2021 10:49:36 AM	64391
Surr: DNOP	87.5	70-130	%Rec	1	12/9/2021 10:49:36 AM	64391
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	17	mg/Kg	5	12/9/2021 9:57:02 AM	G84409
Surr: BFB	101	70-130	%Rec	5	12/9/2021 9:57:02 AM	G84409
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.087	mg/Kg	5	12/9/2021 9:57:02 AM	B84409
Toluene	ND	0.17	mg/Kg	5	12/9/2021 9:57:02 AM	B84409
Ethylbenzene	ND	0.17	mg/Kg	5	12/9/2021 9:57:02 AM	B84409
Xylenes, Total	ND	0.35	mg/Kg	5	12/9/2021 9:57:02 AM	B84409
Surr: 4-Bromofluorobenzene	103	70-130	%Rec	5	12/9/2021 9:57:02 AM	B84409

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

Qualifiers:

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

Page 1 of 22

Surr: 4-Bromofluorobenzene

### **Analytical Report**

Lab Order **2112589**Date Reported: **12/15/2021** 

12/9/2021 10:20:42 AM B84409

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM Client Sample ID: S-2

 Project:
 6L 4 Lateral
 Collection Date: 12/8/2021 1:15:00 PM

 Lab ID:
 2112589-002
 Matrix: MEOH (SOIL)
 Received Date: 12/9/2021 7:25:00 AM

Result **PQL Qual Units Analyses DF** Date Analyzed **Batch EPA METHOD 300.0: ANIONS** Analyst: LRN Chloride ND 60 mg/Kg 12/10/2021 11:25:43 AM 64396 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: SB Diesel Range Organics (DRO) 150 9.1 mg/Kg 12/9/2021 11:00:08 AM 64391 Motor Oil Range Organics (MRO) ND 12/9/2021 11:00:08 AM 64391 45 mg/Kg 1 Surr: DNOP 86.4 70-130 %Rec 12/9/2021 11:00:08 AM 64391 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB 12/9/2021 10:20:42 AM G84409 Gasoline Range Organics (GRO) 320 mg/Kg 5 19 Surr: BFB 405 70-130 S %Rec 5 12/9/2021 10:20:42 AM G84409 **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene 1.8 0.094 mg/Kg 5 12/9/2021 10:20:42 AM B84409 Toluene 25 1.9 mg/Kg 50 12/9/2021 2:15:15 PM Ethylbenzene 4.1 0.19 mg/Kg 5 12/9/2021 10:20:42 AM B84409 Xylenes, Total 32 0.38 mg/Kg 5 12/9/2021 10:20:42 AM B84409

151

70-130

S

%Rec

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

Qualifiers:

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

Page 2 of 22

**CLIENT: ENSOLUM** 

### **Analytical Report**

Lab Order **2112589** 

Date Reported: 12/15/2021

### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: S-3

**Project:** 6L 4 Lateral **Collection Date:** 12/8/2021 1:20:00 PM

**Lab ID:** 2112589-003 **Matrix:** MEOH (SOIL) **Received Date:** 12/9/2021 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed Bat	tch
EPA METHOD 300.0: ANIONS						Analyst: LRI	.N
Chloride	ND	60		mg/Kg	20	12/10/2021 11:38:05 AM 643	396
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS					Analyst: SB	}
Diesel Range Organics (DRO)	280	9.6		mg/Kg	1	12/10/2021 9:43:29 PM 643	391
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/10/2021 9:43:29 PM 643	391
Surr: DNOP	72.2	70-130		%Rec	1	12/10/2021 9:43:29 PM 643	391
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NS	В
Gasoline Range Organics (GRO)	400	18		mg/Kg	5	12/9/2021 10:44:17 AM G84	4409
Surr: BFB	447	70-130	S	%Rec	5	12/9/2021 10:44:17 AM G84	4409
EPA METHOD 8021B: VOLATILES						Analyst: NS	В
Benzene	3.8	0.092		mg/Kg	5	12/9/2021 10:44:17 AM B84	4409
Toluene	19	1.8		mg/Kg	50	12/10/2021 2:47:00 AM B84	4409
Ethylbenzene	4.4	0.18		mg/Kg	5	12/9/2021 10:44:17 AM B84	4409
Xylenes, Total	38	0.37		mg/Kg	5	12/9/2021 10:44:17 AM B84	4409
Surr: 4-Bromofluorobenzene	165	70-130	S	%Rec	5	12/9/2021 10:44:17 AM B84	4409

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

Qualifiers:

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

Page 3 of 22

# Analytical Report Lab Order 2112589

Date Reported: 12/15/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM Client Sample ID: S-4

**Project:** 6L 4 Lateral **Collection Date:** 12/8/2021 1:25:00 PM

**Lab ID:** 2112589-004 **Matrix:** MEOH (SOIL) **Received Date:** 12/9/2021 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed Ba	atch
EPA METHOD 300.0: ANIONS						Analyst: <b>LR</b>	RN
Chloride	ND	61		mg/Kg	20	12/10/2021 11:50:26 AM 643	396
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS					Analyst: SE	3
Diesel Range Organics (DRO)	18	9.5		mg/Kg	1	12/9/2021 11:21:14 AM 64	391
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/9/2021 11:21:14 AM 64	391
Surr: DNOP	81.6	70-130		%Rec	1	12/9/2021 11:21:14 AM 64:	391
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NS	SB
Gasoline Range Organics (GRO)	22	17		mg/Kg	5	12/9/2021 11:07:47 AM G8	84409
Surr: BFB	140	70-130	S	%Rec	5	12/9/2021 11:07:47 AM G8	84409
EPA METHOD 8021B: VOLATILES						Analyst: NS	SB
Benzene	ND	0.084		mg/Kg	5	12/9/2021 11:07:47 AM B8	34409
Toluene	0.27	0.17		mg/Kg	5	12/9/2021 11:07:47 AM B8	34409
Ethylbenzene	0.19	0.17		mg/Kg	5	12/9/2021 11:07:47 AM B8	34409
Xylenes, Total	1.7	0.33		mg/Kg	5	12/9/2021 11:07:47 AM B8	34409
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	5	12/9/2021 11:07:47 AM B8	34409

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

Qualifiers:

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

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Gasoline Range Organics (GRO)

### **Analytical Report**

Lab Order **2112589** 

Date Reported: 12/15/2021

12/9/2021 11:31:03 AM G84409

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM Client Sample ID: S-5

 Project:
 6L 4 Lateral
 Collection Date: 12/8/2021 1:30:00 PM

 Lab ID:
 2112589-005
 Matrix: MEOH (SOIL)
 Received Date: 12/9/2021 7:25:00 AM

Result **PQL Qual Units Analyses DF** Date Analyzed **Batch EPA METHOD 300.0: ANIONS** Analyst: LRN Chloride ND 60 mg/Kg 12/10/2021 4:34:29 PM 64396 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: SB Diesel Range Organics (DRO) ND 9.7 mg/Kg 12/9/2021 11:31:48 AM 64391 Motor Oil Range Organics (MRO) ND 12/9/2021 11:31:48 AM 64391 48 mg/Kg 1 Surr: DNOP 82.7 70-130 %Rec 12/9/2021 11:31:48 AM 64391 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB

ND

Surr: BFB 106 70-130 %Rec 12/9/2021 11:31:03 AM G84409 **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 0.018 mg/Kg 12/9/2021 11:31:03 AM B84409 Toluene ND 0.036 mg/Kg 1 12/9/2021 11:31:03 AM B84409 Ethylbenzene ND 0.036 mg/Kg 12/9/2021 11:31:03 AM B84409 Xylenes, Total ND 0.072 mg/Kg 12/9/2021 11:31:03 AM B84409 Surr: 4-Bromofluorobenzene 105 70-130 %Rec 12/9/2021 11:31:03 AM B84409

3.6

mg/Kg

1

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

Qualifiers:

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

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**CLIENT: ENSOLUM** 

### **Analytical Report**

Lab Order **2112589** 

Date Reported: 12/15/2021

### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: S-6

**Project:** 6L 4 Lateral **Collection Date:** 12/8/2021 1:35:00 PM

**Lab ID:** 2112589-006 **Matrix:** MEOH (SOIL) **Received Date:** 12/9/2021 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS						Analyst: <b>LRN</b>
Chloride	ND	60		mg/Kg	20	12/10/2021 12:39:48 PM 64396
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS					Analyst: SB
Diesel Range Organics (DRO)	15	9.0		mg/Kg	1	12/13/2021 12:00:39 PM 64391
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	12/13/2021 12:00:39 PM 64391
Surr: DNOP	75.3	70-130		%Rec	1	12/13/2021 12:00:39 PM 64391
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	6.8	4.4		mg/Kg	1	12/9/2021 11:54:22 AM G84409
Surr: BFB	149	70-130	S	%Rec	1	12/9/2021 11:54:22 AM G84409
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.022		mg/Kg	1	12/9/2021 11:54:22 AM B84409
Toluene	ND	0.044		mg/Kg	1	12/9/2021 11:54:22 AM B84409
Ethylbenzene	ND	0.044		mg/Kg	1	12/9/2021 11:54:22 AM B84409
Xylenes, Total	0.22	0.088		mg/Kg	1	12/9/2021 11:54:22 AM B84409
Surr: 4-Bromofluorobenzene	108	70-130		%Rec	1	12/9/2021 11:54:22 AM B84409

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

Qualifiers:

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

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Surr: 4-Bromofluorobenzene

### **Analytical Report**

Lab Order **2112589**Date Reported: **12/15/2021** 

12/9/2021 12:18:02 PM B84409

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM Client Sample ID: S-7

 Project:
 6L 4 Lateral
 Collection Date: 12/8/2021 1:40:00 PM

 Lab ID:
 2112589-007
 Matrix: MEOH (SOIL)
 Received Date: 12/9/2021 7:25:00 AM

Result **PQL Qual Units Analyses DF** Date Analyzed **Batch EPA METHOD 300.0: ANIONS** Analyst: LRN Chloride ND 60 mg/Kg 12/10/2021 12:52:09 PM 64396 **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: SB Diesel Range Organics (DRO) 200 8.7 mg/Kg 12/9/2021 11:53:02 AM 64391 Motor Oil Range Organics (MRO) ND 12/9/2021 11:53:02 AM 64391 44 mg/Kg 1 Surr: DNOP 74.7 70-130 %Rec 12/9/2021 11:53:02 AM 64391 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB 12/9/2021 12:18:02 PM G84409 Gasoline Range Organics (GRO) 83 mg/Kg 5 18 Surr: BFB 174 70-130 S %Rec 5 12/9/2021 12:18:02 PM G84409 **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene 0.32 0.092 mg/Kg 5 12/9/2021 12:18:02 PM B84409 Toluene 3.7 0.18 mg/Kg 5 12/9/2021 12:18:02 PM B84409 Ethylbenzene 1.0 0.18 mg/Kg 5 12/9/2021 12:18:02 PM B84409 Xylenes, Total 8.6 0.37 mg/Kg 5 12/9/2021 12:18:02 PM B84409

117

70-130

%Rec

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

Qualifiers:

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

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Lab Order **2112589**Date Reported: **12/15/2021** 

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM Client Sample ID: S-8

**Project:** 6L 4 Lateral **Collection Date:** 12/8/2021 1:45:00 PM

**Lab ID:** 2112589-008 **Matrix:** MEOH (SOIL) **Received Date:** 12/9/2021 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: LRN
Chloride	ND	60		mg/Kg	20	12/10/2021 1:04:30 PM	64396
EPA METHOD 8015M/D: DIESEL RANGE ORGA	NICS					Analyst	SB
Diesel Range Organics (DRO)	250	10		mg/Kg	1	12/9/2021 12:03:39 PM	64391
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/9/2021 12:03:39 PM	64391
Surr: DNOP	82.8	70-130		%Rec	1	12/9/2021 12:03:39 PM	64391
EPA METHOD 8015D: GASOLINE RANGE						Analyst	NSB
Gasoline Range Organics (GRO)	1400	24		mg/Kg	5	12/9/2021 12:41:41 PM	G84409
Surr: BFB	593	70-130	S	%Rec	5	12/9/2021 12:41:41 PM	G84409
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	18	0.12		mg/Kg	5	12/9/2021 12:41:41 PM	B84409
Toluene	120	2.4		mg/Kg	50	12/9/2021 3:02:10 PM	B84409
Ethylbenzene	21	0.24		mg/Kg	5	12/9/2021 12:41:41 PM	B84409
Xylenes, Total	160	4.7		mg/Kg	50	12/9/2021 3:02:10 PM	B84409
Surr: 4-Bromofluorobenzene	209	70-130	S	%Rec	5	12/9/2021 12:41:41 PM	B84409

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

Qualifiers:

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

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Lab Order **2112589**Date Reported: **12/15/2021** 

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM Client Sample ID: S-9

**Project:** 6L 4 Lateral **Collection Date:** 12/8/2021 1:50:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	: LRN
Chloride	ND	60		mg/Kg	20	12/10/2021 1:16:50 PM	64396
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS					Analyst	SB
Diesel Range Organics (DRO)	45	9.4		mg/Kg	1	12/9/2021 12:14:19 PM	64391
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/9/2021 12:14:19 PM	64391
Surr: DNOP	86.6	70-130		%Rec	1	12/9/2021 12:14:19 PM	64391
EPA METHOD 8015D: GASOLINE RANGE						Analyst	NSB
Gasoline Range Organics (GRO)	200	20		mg/Kg	5	12/9/2021 1:28:35 PM	G84409
Surr: BFB	338	70-130	S	%Rec	5	12/9/2021 1:28:35 PM	G84409
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	0.51	0.10		mg/Kg	5	12/9/2021 1:28:35 PM	B84409
Toluene	12	0.20		mg/Kg	5	12/9/2021 1:28:35 PM	B84409
Ethylbenzene	2.5	0.20		mg/Kg	5	12/9/2021 1:28:35 PM	B84409
Xylenes, Total	20	0.40		mg/Kg	5	12/9/2021 1:28:35 PM	B84409
Surr: 4-Bromofluorobenzene	131	70-130	S	%Rec	5	12/9/2021 1:28:35 PM	B84409

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

Qualifiers:

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

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Lab Order 2112589

### Hall Environmental Analysis Laboratory, Inc. Date Reported: 12/15/2021

CLIENT: ENSOLUM Client Sample ID: S-10

 Project:
 6L 4 Lateral
 Collection Date: 12/8/2021 1:55:00 PM

 Lab ID:
 2112589-010
 Matrix: MEOH (SOIL)
 Received Date: 12/9/2021 7:25:00 AM

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: LRN
Chloride	ND	60	mg/Kg	20	12/10/2021 1:29:12 PM	64396
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst	: SB
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	12/9/2021 12:24:59 PM	64391
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/9/2021 12:24:59 PM	64391
Surr: DNOP	82.4	70-130	%Rec	1	12/9/2021 12:24:59 PM	64391
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: NSB
Gasoline Range Organics (GRO)	ND	3.4	mg/Kg	1	12/9/2021 1:51:56 PM	G84409
Surr: BFB	117	70-130	%Rec	1	12/9/2021 1:51:56 PM	G84409
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.017	mg/Kg	1	12/9/2021 1:51:56 PM	B84409
Toluene	0.039	0.034	mg/Kg	1	12/9/2021 1:51:56 PM	B84409
Ethylbenzene	ND	0.034	mg/Kg	1	12/9/2021 1:51:56 PM	B84409
Xylenes, Total	0.096	0.067	mg/Kg	1	12/9/2021 1:51:56 PM	B84409
Surr: 4-Bromofluorobenzene	106	70-130	%Rec	1	12/9/2021 1:51:56 PM	B84409

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

Qualifiers:

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

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# Analytical Report Lab Order 2112589

Date Reported: 12/15/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM Client Sample ID: S-11

 Project:
 6L 4 Lateral
 Collection Date: 12/8/2021 2:00:00 PM

 Lab ID:
 2112589-011
 Matrix: MEOH (SOIL)
 Received Date: 12/9/2021 7:25:00 AM

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: LRN
Chloride	ND	60	mg/Kg	20	12/10/2021 1:41:34 PM	64396
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	12/9/2021 11:00:31 AM	64391
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/9/2021 11:00:31 AM	64391
Surr: DNOP	106	70-130	%Rec	1	12/9/2021 11:00:31 AM	64391
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	3.7	mg/Kg	1	12/9/2021 11:12:00 AM	R84405
Surr: BFB	92.0	70-130	%Rec	1	12/9/2021 11:12:00 AM	R84405
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.019	mg/Kg	1	12/9/2021 11:12:00 AM	R84405
Toluene	ND	0.037	mg/Kg	1	12/9/2021 11:12:00 AM	R84405
Ethylbenzene	ND	0.037	mg/Kg	1	12/9/2021 11:12:00 AM	R84405
Xylenes, Total	ND	0.075	mg/Kg	1	12/9/2021 11:12:00 AM	R84405
Surr: 4-Bromofluorobenzene	83.4	70-130	%Rec	1	12/9/2021 11:12:00 AM	R84405

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

Qualifiers:

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

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**CLIENT: ENSOLUM** 

### **Analytical Report**

Lab Order **2112589** 

Date Reported: 12/15/2021

### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: S-12

**Project:** 6L 4 Lateral **Collection Date:** 12/8/2021 2:05:00 PM

**Lab ID:** 2112589-012 **Matrix:** MEOH (SOIL) **Received Date:** 12/9/2021 7:25:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: LRN
Chloride	ND	59	mg/Kg	20	12/10/2021 1:53:55 PM	64396
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	12/9/2021 11:24:11 AM	64391
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/9/2021 11:24:11 AM	64391
Surr: DNOP	105	70-130	%Rec	1	12/9/2021 11:24:11 AM	64391
EPA METHOD 8015D: GASOLINE RANGE					Analyst	RAA
Gasoline Range Organics (GRO)	ND	3.3	mg/Kg	1	12/9/2021 11:32:00 AM	R84405
Surr: BFB	95.5	70-130	%Rec	1	12/9/2021 11:32:00 AM	R84405
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.016	mg/Kg	1	12/9/2021 11:32:00 AM	R84405
Toluene	ND	0.033	mg/Kg	1	12/9/2021 11:32:00 AM	R84405
Ethylbenzene	ND	0.033	mg/Kg	1	12/9/2021 11:32:00 AM	R84405
Xylenes, Total	ND	0.065	mg/Kg	1	12/9/2021 11:32:00 AM	R84405
Surr: 4-Bromofluorobenzene	83.7	70-130	%Rec	1	12/9/2021 11:32:00 AM	R84405

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

Qualifiers:

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

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# Analytical Report Lab Order 2112589

Date Reported: 12/15/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM Client Sample ID: S-13

**Project:** 6L 4 Lateral **Collection Date:** 12/8/2021 2:10:00 PM

**Lab ID:** 2112589-013 **Matrix:** MEOH (SOIL) **Received Date:** 12/9/2021 7:25:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: LRN
Chloride	ND	60	mg/Kg	20	12/10/2021 2:06:16 PM	64396
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: SB
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	12/9/2021 11:47:59 AM	64391
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/9/2021 11:47:59 AM	64391
Surr: DNOP	106	70-130	%Rec	1	12/9/2021 11:47:59 AM	64391
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: RAA
Gasoline Range Organics (GRO)	ND	3.4	mg/Kg	1	12/9/2021 11:52:00 AM	R84405
Surr: BFB	89.0	70-130	%Rec	1	12/9/2021 11:52:00 AM	R84405
EPA METHOD 8021B: VOLATILES					Analyst	: RAA
Benzene	ND	0.017	mg/Kg	1	12/9/2021 11:52:00 AM	R84405
Toluene	ND	0.034	mg/Kg	1	12/9/2021 11:52:00 AM	R84405
Ethylbenzene	ND	0.034	mg/Kg	1	12/9/2021 11:52:00 AM	R84405
Xylenes, Total	ND	0.068	mg/Kg	1	12/9/2021 11:52:00 AM	R84405
Surr: 4-Bromofluorobenzene	79.3	70-130	%Rec	1	12/9/2021 11:52:00 AM	R84405

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

Qualifiers:

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

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**CLIENT: ENSOLUM** 

### **Analytical Report**

Lab Order **2112589** 

Date Reported: 12/15/2021

### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: S-14

**Project:** 6L 4 Lateral **Collection Date:** 12/8/2021 2:15:00 PM

**Lab ID:** 2112589-014 **Matrix:** MEOH (SOIL) **Received Date:** 12/9/2021 7:25:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: LRN
Chloride	ND	60	mg/Kg	20	12/10/2021 4:46:49 PM	64396
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: SB
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	12/9/2021 11:10:56 AM	64391
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	12/9/2021 11:10:56 AM	64391
Surr: DNOP	93.9	70-130	%Rec	1	12/9/2021 11:10:56 AM	64391
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: RAA
Gasoline Range Organics (GRO)	ND	3.6	mg/Kg	1	12/9/2021 12:11:00 PM	R84405
Surr: BFB	91.2	70-130	%Rec	1	12/9/2021 12:11:00 PM	R84405
EPA METHOD 8021B: VOLATILES					Analyst	: RAA
Benzene	ND	0.018	mg/Kg	1	12/9/2021 12:11:00 PM	R84405
Toluene	ND	0.036	mg/Kg	1	12/9/2021 12:11:00 PM	R84405
Ethylbenzene	ND	0.036	mg/Kg	1	12/9/2021 12:11:00 PM	R84405
Xylenes, Total	ND	0.072	mg/Kg	1	12/9/2021 12:11:00 PM	R84405
Surr: 4-Bromofluorobenzene	82.2	70-130	%Rec	1	12/9/2021 12:11:00 PM	R84405

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

Qualifiers:

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

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# Analytical Report Lab Order 2112589

Date Reported: 12/15/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM Client Sample ID: S-15

 Project:
 6L 4 Lateral
 Collection Date: 12/8/2021 2:20:00 PM

 Lab ID:
 2112589-015
 Matrix: MEOH (SOIL)
 Received Date: 12/9/2021 7:25:00 AM

Analyses	Result	PQL (	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	LRN
Chloride	ND	60	mg/Kg	20	12/10/2021 2:55:39 PM	64396
EPA METHOD 8015M/D: DIESEL RANGE ORGA	ANICS				Analyst	SB
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	12/9/2021 11:22:54 AM	64391
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/9/2021 11:22:54 AM	64391
Surr: DNOP	92.8	70-130	%Rec	1	12/9/2021 11:22:54 AM	64391
EPA METHOD 8015D: GASOLINE RANGE					Analyst:	RAA
Gasoline Range Organics (GRO)	ND	3.4	mg/Kg	1	12/9/2021 12:31:00 PM	R84405
Surr: BFB	92.8	70-130	%Rec	1	12/9/2021 12:31:00 PM	R84405
EPA METHOD 8021B: VOLATILES					Analyst	RAA
Benzene	ND	0.017	mg/Kg	1	12/9/2021 12:31:00 PM	R84405
Toluene	ND	0.034	mg/Kg	1	12/9/2021 12:31:00 PM	R84405
Ethylbenzene	ND	0.034	mg/Kg	1	12/9/2021 12:31:00 PM	R84405
Xylenes, Total	ND	0.068	mg/Kg	1	12/9/2021 12:31:00 PM	R84405
Surr: 4-Bromofluorobenzene	83.7	70-130	%Rec	1	12/9/2021 12:31:00 PM	R84405

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

Qualifiers:

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

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**CLIENT: ENSOLUM** 

### **Analytical Report**

Lab Order **2112589** 

Date Reported: 12/15/2021

### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: S-16

**Project:** 6L 4 Lateral **Collection Date:** 12/8/2021 2:25:00 PM

**Lab ID:** 2112589-016 **Matrix:** MEOH (SOIL) **Received Date:** 12/9/2021 7:25:00 AM

Analyses	Result	PQL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: LRN
Chloride	ND	60	mg/Kg	20	12/10/2021 3:08:00 PM	64396
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	: SB
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	12/9/2021 11:34:50 AM	64391
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/9/2021 11:34:50 AM	64391
Surr: DNOP	90.8	70-130	%Rec	1	12/9/2021 11:34:50 AM	64391
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: RAA
Gasoline Range Organics (GRO)	ND	3.8	mg/Kg	1	12/9/2021 12:51:00 PM	R84405
Surr: BFB	91.1	70-130	%Rec	1	12/9/2021 12:51:00 PM	R84405
EPA METHOD 8021B: VOLATILES					Analyst	: RAA
Benzene	ND	0.019	mg/Kg	1	12/9/2021 12:51:00 PM	R84405
Toluene	ND	0.038	mg/Kg	1	12/9/2021 12:51:00 PM	R84405
Ethylbenzene	ND	0.038	mg/Kg	1	12/9/2021 12:51:00 PM	R84405
Xylenes, Total	ND	0.075	mg/Kg	1	12/9/2021 12:51:00 PM	R84405
Surr: 4-Bromofluorobenzene	77.5	70-130	%Rec	1	12/9/2021 12:51:00 PM	R84405

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

Qualifiers:

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

Page 16 of 22

### Hall Environmental Analysis Laboratory, Inc.

WO#: 2112589

15-Dec-21

**Client: ENSOLUM Project:** 6L 4 Lateral

Sample ID: MB-64396 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 64396 RunNo: 84474

Prep Date: 12/9/2021 Analysis Date: 12/10/2021 SeqNo: 2968204 Units: mg/Kg

SPK value SPK Ref Val %REC LowLimit **RPDLimit** Analyte Result PQL HighLimit %RPD Qual

Chloride ND 1.5

Sample ID: LCS-64396 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 64396 RunNo: 84474

15

Prep Date: 12/9/2021 Analysis Date: 12/10/2021 SeqNo: 2968205 Units: mg/Kg

15.00

SPK value SPK Ref Val %REC LowLimit %RPD Analyte HighLimit **RPDLimit** Qual 0

96.8

110

Qualifiers:

Chloride

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND

POL Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix interference

Analyte detected in the associated Method Blank

Е Value above quantitation range

Analyte detected below quantitation limits

Sample pH Not In Range Р

RL Reporting Limit Page 17 of 22

### Hall Environmental Analysis Laboratory, Inc.

2112589 15-Dec-21

Qual

WO#:

**RPDLimit** 

%RPD

Client: ENSOLUM
Project: 6L 4 Lateral

 Sample ID: LCS-64391
 SampType: LCS
 TestCode: EPA Method 8015M/D: Diesel Range Organics

 Client ID: LCSS
 Batch ID: 64391
 RunNo: 84388

 Prep Date: 12/9/2021
 Analysis Date: 12/9/2021
 SeqNo: 2964799
 Units: mg/Kg

HighLimit Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit Diesel Range Organics (DRO) 44 10 50.00 0 88.1 68.9 135 Surr: DNOP 3.8 5.000 76.5 70 130

Sample ID: MB-64391 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 64391 RunNo: 84388

Prep Date: 12/9/2021 Analysis Date: 12/9/2021 SeqNo: 2964801 Units: mg/Kg

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 8.2 10.00 82.0 70 130

#### Qualifiers:

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

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**ENSOLUM** 

**Client:** 

### Hall Environmental Analysis Laboratory, Inc.

WO#: 2112589 15-Dec-21

**Project:** 6L 4 Lateral Sample ID: 2.5ug gro Ics SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: R84405 RunNo: 84405 Prep Date: Analysis Date: 12/9/2021 SeqNo: 2965226 Units: mq/Kq PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Analyte Result Gasoline Range Organics (GRO) 26 5.0 25.00 n 103 78 6 131 Surr: BFB 1300 1000 129 70 130 Sample ID: mb SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: PBS Batch ID: R84405 RunNo: 84405 Prep Date: Analysis Date: 12/9/2021 SeqNo: 2965227 Units: mg/Kg Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) ND 5.0 Surr: BFB 860 1000 86.4 70 130 TestCode: EPA Method 8015D: Gasoline Range Sample ID: mb SampType: MBLK Client ID: PBS Batch ID: G84409 RunNo: 84409 Prep Date: Analysis Date: 12/9/2021 SeqNo: 2965633 Units: mq/Kq Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) ND 5.0 Surr: BFB 1000 1000 103 70 130 Sample ID: 2.5ug gro Ics SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: G84409 RunNo: 84409 Prep Date: Analysis Date: 12/9/2021 SegNo: 2965634 Units: mg/Kg %RPD Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit **RPDLimit** Qual Gasoline Range Organics (GRO) 25 5.0 25.00 n 99.1 78.6 131 Surr: BFB 1200 1000 116 70 130 Sample ID: 2112589-011a ms SampType: MS TestCode: EPA Method 8015D: Gasoline Range Client ID: S-11 Batch ID: R84405 RunNo: 84405

#### Qualifiers:

Analyte

Prep Date:

Surr: BFB

Client ID:

Prep Date:

Analyte

- Value exceeds Maximum Contaminant Level
- D Sample Diluted Due to Matrix

Gasoline Range Organics (GRO)

Sample ID: 2112589-011A MSD

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference

Analysis Date: 12/9/2021

SampType: MSD

Batch ID: R84405

PQI

Analysis Date: 12/9/2021

POL

3.7

Result

19

740

Result

B Analyte detected in the associated Method Blank

SeqNo: 2965842

LowLimit

61.3

70

TestCode: EPA Method 8015D: Gasoline Range

%REC

103

99.1

RunNo: 84405

SeqNo: 2965843

%REC LowLimit

Units: mg/Kg

114

130

Units: mq/Kq

HighLimit

HighLimit

%RPD

%RPD

**RPDLimit** 

**RPDLimit** 

Qual

Qual

- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

0

SPK value SPK Ref Val

SPK value SPK Ref Val

18.74

749.6

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### Hall Environmental Analysis Laboratory, Inc.

WO#: **2112589** 

15-Dec-21

Client: ENSOLUM
Project: 6L 4 Lateral

Sample ID: 2112589-011A MSD SampType: MSD TestCode: EPA Method 8015D: Gasoline Range

Client ID: S-11 Batch ID: R84405 RunNo: 84405

Prep Date: Analysis Date: 12/9/2021 SeqNo: 2965843 Units: mg/Kg

SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Analyte Result **PQL** Qual Gasoline Range Organics (GRO) 19 3.7 18.74 0 102 61.3 114 0.390 20 Surr: BFB 760 749.6 102 70 130 0 0

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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### Hall Environmental Analysis Laboratory, Inc.

2112589 15-Dec-21

WO#:

Client:	ENSOLUM
Project:	6L 4 Lateral

Sample ID: 100ng btex lcs	Samp	Type: <b>LC</b>	S	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: LCSS	Bato	h ID: <b>R8</b>	4405	F	RunNo: 8	4405				
Prep Date:	Analysis I	Date: 12	2/9/2021	5	SeqNo: 2	965236	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	91.7	80	120			
Toluene	0.93	0.050	1.000	0	93.4	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.7	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.5	80	120			
Surr: 4-Bromofluorobenzene	0.93		1.000		93.4	70	130			
Sample ID: mb	Samp	Туре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: PBS	Bato	h ID: R8	4405	F	RunNo: 8	4405				
Prep Date:	Analysis I	Date: 12	2/9/2021	5	SeqNo: 2	965237	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025		•			•			

Sample ID: mb	Samn	Type: MF	RI K	Tes	tCode: FI	PA Method	8021B: Volat	iles		
Surr: 4-Bromofluorobenzene	0.80		1.000		79.6	70	130			
Xylenes, Total	ND	0.10								
Ethylbenzene	ND	0.050								
Toluene	ND	0.050								
Benzene	ND	0.025								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
·	•						•	•		

Sample ID: mb	Sampl	уре: <b>МЕ</b>	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: PBS	Batcl	h ID: <b>B8</b>	4409	F	RunNo: 8	4409				
Prep Date:	Analysis [	Date: 12	2/9/2021	8	SeqNo: 2	965662	Units: mg/K	g		
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	1.0		1.000		104	70	130			

Sample ID: 100ng btex Ics	Sampl	ype: <b>LC</b>	s	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batcl	h ID: <b>B8</b>	4409	F	RunNo: 8	4409				
Prep Date:	Analysis D	Date: 12	2/9/2021	S	SeqNo: 2	965663	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.8	80	120			
Toluene	0.94	0.050	1.000	0	94.5	80	120			
Ethylbenzene	0.94	0.050	1.000	0	93.5	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.5	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	70	130			

#### Qualifiers:

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

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### Hall Environmental Analysis Laboratory, Inc.

WO#: **2112589** 

15-Dec-21

Client: ENSOLUM
Project: 6L 4 Lateral

Sample ID: 2112589-012ams	Samp1	Гуре: МS	3	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: S-12	Batcl	h ID: <b>R8</b>	4405	F	RunNo: 8	4463				
Prep Date:	Analysis D	Date: 12	2/10/2021	8	SeqNo: 2	969441	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.58	0.016	0.6527	0	88.6	80	120			
Toluene	0.58	0.033	0.6527	0	89.3	80	120			
Ethylbenzene	0.59	0.033	0.6527	0	90.2	80	120			
Xylenes, Total	1.7	0.065	1.958	0	88.2	80	120			
Surr: 4-Bromofluorobenzene	0.55		0.6527		84.1	70	130			

Sample ID: 2112589-012amsd	SampT	уре: <b>м</b>	SD	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: S-12	Batcl	h ID: <b>R8</b>	4405	F	RunNo: 8	4463				
Prep Date:	Analysis D	Date: 12	2/10/2021	\$	SeqNo: 2	969442	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.55	0.016	0.6527	0	84.9	80	120	4.32	20	
Toluene	0.56	0.033	0.6527	0	85.7	80	120	4.16	20	
Ethylbenzene	0.57	0.033	0.6527	0	86.6	80	120	4.10	20	
Xylenes, Total	1.7	0.065	1.958	0	85.1	80	120	3.66	20	
Surr: 4-Bromofluorobenzene	0.59		0.6527		90.2	70	130	0	0	

#### Qualifiers:

Page 22 of 22

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

### Sample Log-In Check List

Client Name: ENSOLUM	Work	Order Num	ber: <b>211</b>	2589			RcptNo:	1
Received By: Desiree Domin	nguez 12/9/20	021 7:25:00	АМ		TD=	2		
Completed By: Desiree Domir	nguez 12/9/20	021 7:33:07	АМ		17			
Reviewed By: JN  2  9   7	21					3		
Chain of Custody								
1. Is Chain of Custody complete?			Yes	<b>V</b>	No		Not Present	
2. How was the sample delivered	?		Cou	<u>rier</u>				
<u>Log In</u>								
3. Was an attempt made to cool to	ne samples?		Yes	<b>V</b>	No		NA 🗆	
4. Were all samples received at a	temperature of >0° C	to 6.0°C	Yes	<b>V</b>	No		NA 🗆	
5. Sample(s) in proper container(s	i)?		Yes	<b>V</b>	No			
6. Sufficient sample volume for ind	licated test(s)?		Yes	<b>V</b>	No [			
7. Are samples (except VOA and C	ONG) properly preserve	ed?	Yes	<b>V</b>	No [			
8. Was preservative added to bottle	es?		Yes		No [	<b>~</b>	NA 🗆	
9. Received at least 1 vial with hea	dspace <1/4" for AQ \	/OA?	Yes		No [		NA 🗹	
10. Were any sample containers re	ceived broken?		Yes		No	<b>✓</b>	# = 6 = = = = = = 1	
11 Deep managed works to the term						_	# of preserved bottles checked	
<ol> <li>Does paperwork match bottle lal (Note discrepancies on chain of</li> </ol>			Yes	<b>V</b>	No L	-	for pH:	12 unless noted)
2. Are matrices correctly identified			Yes	<b>V</b>	No [		Adjusted?	12 unicos notea)
3. Is it clear what analyses were re				<b>V</b>	No [		/ -	
<ol> <li>Were all holding times able to be (If no, notify customer for author</li> </ol>			Yes	<b>v</b>	No [		Checked by: 71	LC 12/9/21
Special Handling (if applica								
15. Was client notified of all discrep		>	Yes		No [		NA 🗸	
Person Notified:		Date:		NAME OF TAXABLE PARTY.		Name of Street		
By Whom:		Via:	eMa	ail [	] Phone [] I	Fax	In Person	
Regarding:		AND DESCRIPTION OF THE PARTY OF		-		- Constitution of the Cons		
Client Instructions:			***********	NACT USING		w CONTRACTOR		
16. Additional remarks:								
17. Cooler Information								
Cooler No Temp °C Co	ndition   Seal Intact	Seal No	Seal Da	ate	Signed By	y		
1 1.7 Good	d Yes							

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3/2022 8:0
3/2022 8:08
3/2022 8:08:
3/2022 8:08:1
3/2022 8:08:
3/2022 8:08:12
3/2022 8:08:12 A
3/2022 8:08:12 A
3/2022 8:08:12 A

C	Chain	-of-Cu	ustody Record	Turn-Around	Time:	MEDAY	HALL ENVIRONMENTAL							eive							
Client:		olum,		☐ Standard		1_ 10070	HALL ENVIRONMENTAL ANALYSIS LABORATOR														
		21-111		Project Name		1	www.hallenvironmental.com						00								
Mailing	Address	5: /a/\la S	Si Rio Grando Suite A	6L-1	1 Late	ral		40	.04.1												): 2/
A2	tecini	M 87	-UIN	Project #: S	20000		1										M 87				15/20
Phone	,	11.1 0 1	410		٠.٥٢)			1	el. 50	)5-3 <sup>2</sup>	45-3	-	Company of the Paris of the			uest	-4107			STORY.	122 8
email o	r Fax#: }	(Summ	ers e ensolumicom	Project Mana	ager: VSIV	nn-iri	_	<u> </u>					V and the second		Rec						3:03:
	Package:			]	0 1-000		021	MR/	s's		S)	-	, SO <sub>4</sub>			sen					93:54 AM
□ Stan	ndard		☐ Level 4 (Full Validation)				8) 8,	0	PCB's		SSIN		PO4,			ıt/Ak					N
Accredi			ompliance	Sampler: Px			IMB's (8021)	/ R	Pesticides/8082	<del>-</del>	8270SIMS		$NO_2$	11		eser					
□ NEL		□ Other		On Ice:		-□ <sup>'</sup> No	$  \cdot  $	8	es/8	504.1)	or	8			OA)	(Pre	0				
	(Type)			# of Coolers:		6 +0.1= 1.7 (°C)	/-MTBE	9)0	ticid	(Method	8310	8 Metals	Br, NO <sub>3</sub> ,	(A	V-in	form	Chloride				
				Cooler Tellip	(molading or ).	1011-111 (0)	1	3015	Pes	Met	by	~		(V0	(Ser	Colii	101				
Date	Time	Matrix	Sample Name	Annual Control of the Control	Preservative Type	HEAL No.	BTEX	TPH:8015D(GRO / DRO / MRO)	8081	EDB (	PAHs	RCRA	CI, F,	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Ch				
12/8/21	1310	S	5-1	1x402Jar	C061	-001	X	X							-	_	X	$\dashv$	$\top$	$\top$	$\Box$
	1315	S	S-2	1×402Jer		-002	X	X				d					X		$\top$	+	$\Box$
	1320		S-3	1×402 Jer		- 003	X	X									X	$\top$		$\top$	T
12/8/21	1325	5	S-4	1x402Jar		-004	X	Χ									X	$\top$	$\top$	$\top$	$\forall$
12/8/21	1330	S	5-5	1×40250	cool	-005	X	X									X	$\top$		$\top$	$\Box$
12/8/21	1335	S	S-6	1×402Jar	. 1	-006	X	X									X		$\top$	1	
12/8/21	1340	S	S-7	1×402 Jar	0001	-007	X	X									X		$\top$	$\top$	П
12/8/21	1345	S	S-8	1x402Jar	COU	-008	X	Χ									X				П
	1350	S	S-9	1x4025cr	C001	-009	X	X									X			$\top$	$\Box$
12/8/21	1355	S	S-10	1 x 462 Jar	cool	-010	X	X									X			T	П
2/8/21	1400	5	5-11	1x402Jcr	cool	-011	X	X									X				П
12/8/21	1405	_5_	S-12	1×40250	CODI	-012	Remarks: PM-Tom Long (EPRGD) PNY Key-RB21200														
Date:	Time: 1742	Relinquishe	ed by:	Received by:	Via:	Date Time 12/8/2/ 1742	Rem	narks nJE	s: SOF	XY		PA	M -	-TI	- E	12	ong	LE	PRGI )	2)	$P_{\alpha}$
Date:		Relinquishe		Received by:	Via:	Date Time	Z	1,	. 549	-		(	1 '	1	,-		10	,	51		ige 6
12/8/21	1847	14	A Dav	123	Conner	12/9/21 7:25	5					Page 67 of									

Released to Imaging: 6/23/2022 8:08:12 AM

Client:	Ensi	lum,	LLC SIRIO Granda	Turn-Around  □ Standard  Project Nam	l ⊠(Rush	JAME DAY 1 100 0		400		A	www.	<b>AL</b> w.hal	YS lenv	ironi	<b>S</b> L	<b>A</b> tal.c	<b>30</b> om	RA	NT/		CD:
Suite Phone:	All	tec	NM 87410	Project #: S						lawki 05-34		975	F	ах	505		-410		35.11		2/15/2022
QA/QC	Package: dard		mese ensolumido.  □ Level 4 (Full Validation)				B's (8021)	RO / MRO)	2 PCB's		8270SIMS		PO <sub>4</sub> , SO <sub>4</sub>	0,0	r.cq						8:03:54 AM
Accredi		□ Az Co □ Other	mpliance	On Ice: # of Coolers:	Deechill  Yes  (including CF): 1. Le	力 No	MIBE / IMB's (8021)	TPH:8015D(GRO / DRO / MRO)	Pesticides/8082	(Method 504.1)	PAHs by 8310 or 827	RCRA 8 Metals	CI, F, Br, NO <sub>3</sub> , NO <sub>2</sub> ,	(OA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	hlande				
	Time		Sample Name	Container Type and #	Preservative Type	HEAL No. ユハスら89	BTEX/	TPH:80	8081 Pe	EDB (M	PAHs b	RCRA 8	CI, F, E	8260 (VOA)	8270 (S	Total Co	Ch		ai ai		
12/8/21	1410	S	S-13	1x40z Jur		-013	X	X		4	_						X	-	$\perp$	$\perp$	
12/8/21		5	S-14 S-15	1x Yoz Jar		-014	X	X		-	_	-	-	-			X	+	+	+	Н
12/8/21		S	S-16	1×402 Jar		-016	X	X									X X	$\pm$		$\pm$	
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,										,								+	+	_	
2/8/21	1742	Relinquishe		Received by:	Via: Walt Via:	Date Time  12/8/21/1742  Date Time  12/9/21 7:25	Ren SA	narks ME	:: DA	M			Pr Po	n-	Tor	n L	Lone RB	1/E	PE&		Page 68 of



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

December 20, 2021

Kyle Summers
ENSOLUM
606 S. Rio Grande Suite A
Aztec, NM 87410
TEL: (903) 821-5603

FAX

RE: 6L 4 Lateral OrderNo.: 2112830

#### Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 3 sample(s) on 12/14/2021 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 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,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

**CLIENT: ENSOLUM** 

### **Analytical Report**

Lab Order 2112830 Date Reported: 12/20/2021

### Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: S-17

Project: 6L 4 Lateral **Collection Date:** 12/13/2021 1:00:00 PM

Lab ID: 2112830-001 Matrix: MEOH (SOIL) **Received Date:** 12/14/2021 8:10:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JMT
Chloride	ND	60	mg/Kg	20	12/14/2021 2:07:53 PM	64488
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	12/14/2021 10:48:27 Al	M 64478
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/14/2021 10:48:27 Al	M 64478
Surr: DNOP	81.1	70-130	%Rec	1	12/14/2021 10:48:27 Al	M 64478
EPA METHOD 8015D: GASOLINE RANGE					Analyst	: mb
Gasoline Range Organics (GRO)	ND	3.8	mg/Kg	1	12/14/2021 9:11:00 AM	R84502
Surr: BFB	104	70-130	%Rec	1	12/14/2021 9:11:00 AM	R84502
EPA METHOD 8021B: VOLATILES					Analyst	: mb
Benzene	ND	0.019	mg/Kg	1	12/14/2021 9:11:00 AM	BS84502
Toluene	ND	0.038	mg/Kg	1	12/14/2021 9:11:00 AM	BS84502
Ethylbenzene	ND	0.038	mg/Kg	1	12/14/2021 9:11:00 AM	BS84502
Xylenes, Total	ND	0.077	mg/Kg	1	12/14/2021 9:11:00 AM	BS84502
Surr: 4-Bromofluorobenzene	86.3	70-130	%Rec	1	12/14/2021 9:11:00 AM	BS84502

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

Qualifiers:

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

Page 1 of 7

# Analytical Report Lab Order 2112830

Date Reported: 12/20/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM Client Sample ID: S-18

**Project:** 6L 4 Lateral **Collection Date:** 12/13/2021 1:05:00 PM

**Lab ID:** 2112830-002 **Matrix:** MEOH (SOIL) **Received Date:** 12/14/2021 8:10:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: <b>JMT</b>
Chloride	ND	61	mg/Kg	20	12/14/2021 2:20:17 PM	1 64488
EPA METHOD 8015M/D: DIESEL RANGE ORG	SANICS				Analys	t: BRM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	12/14/2021 11:12:39 A	M 64478
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/14/2021 11:12:39 A	M 64478
Surr: DNOP	77.1	70-130	%Rec	1	12/14/2021 11:12:39 A	M 64478
EPA METHOD 8015D: GASOLINE RANGE					Analys	t: <b>mb</b>
Gasoline Range Organics (GRO)	ND	3.5	mg/Kg	1	12/14/2021 9:30:00 AM	1 R84502
Surr: BFB	92.9	70-130	%Rec	1	12/14/2021 9:30:00 AM	1 R84502
EPA METHOD 8021B: VOLATILES					Analys	t: <b>mb</b>
Benzene	ND	0.017	mg/Kg	1	12/14/2021 9:30:00 AM	1 BS84502
Toluene	ND	0.035	mg/Kg	1	12/14/2021 9:30:00 AM	M BS84502
Ethylbenzene	ND	0.035	mg/Kg	1	12/14/2021 9:30:00 AM	M BS84502
Xylenes, Total	ND	0.070	mg/Kg	1	12/14/2021 9:30:00 AM	M BS84502
Surr: 4-Bromofluorobenzene	84.1	70-130	%Rec	1	12/14/2021 9:30:00 AM	M BS84502

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

Qualifiers:

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

Page 2 of 7

# Analytical Report Lab Order 2112830

Date Reported: 12/20/2021

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM Client Sample ID: S-19

**Project:** 6L 4 Lateral **Collection Date:** 12/13/2021 1:10:00 PM

**Lab ID:** 2112830-003 **Matrix:** MEOH (SOIL) **Received Date:** 12/14/2021 8:10:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	JMT
Chloride	ND	60	mg/Kg	20	12/14/2021 2:32:42 PM	64488
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst	BRM
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	12/14/2021 11:36:46 AM	/I 64478
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/14/2021 11:36:46 AM	A 64478
Surr: DNOP	80.4	70-130	%Rec	1	12/14/2021 11:36:46 AM	<i>l</i> 64478
EPA METHOD 8015D: GASOLINE RANGE					Analyst	mb
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	12/14/2021 9:50:00 AM	R84502
Surr: BFB	95.2	70-130	%Rec	1	12/14/2021 9:50:00 AM	R84502
EPA METHOD 8021B: VOLATILES					Analyst	mb
Benzene	ND	0.023	mg/Kg	1	12/14/2021 9:50:00 AM	BS84502
Toluene	ND	0.047	mg/Kg	1	12/14/2021 9:50:00 AM	BS84502
Ethylbenzene	ND	0.047	mg/Kg	1	12/14/2021 9:50:00 AM	BS84502
Xylenes, Total	ND	0.094	mg/Kg	1	12/14/2021 9:50:00 AM	BS84502
Surr: 4-Bromofluorobenzene	84.8	70-130	%Rec	1	12/14/2021 9:50:00 AM	BS84502

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

Qualifiers:

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

Page 3 of 7

### Hall Environmental Analysis Laboratory, Inc.

2112830 20-Dec-21

WO#:

Client: ENSOLUM
Project: 6L 4 Lateral

Sample ID: MB-64488 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 64488 RunNo: 84525

Prep Date: 12/14/2021 Analysis Date: 12/14/2021 SeqNo: 2971244 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride ND 1.5

Sample ID: LCS-64488 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 64488 RunNo: 84525

Prep Date: 12/14/2021 Analysis Date: 12/14/2021 SeqNo: 2971245 Units: mg/Kg

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Chloride 14 1.5 15.00 0 96.2 90 110

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 4 of 7

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2112830 20-Dec-21** 

Client: ENSOLUM
Project: 6L 4 Lateral

Sample ID: LCS-64478	SampT	ype: <b>LC</b>	S	TestCode: EPA Method 8015M/D: Diesel Range Organics											
Client ID: LCSS	Batch	n ID: <b>64</b> 4	478	R	RunNo: 8	4516									
Prep Date: 12/14/2021	Analysis D	ate: 12	2/14/2021	S	SeqNo: 2	970114	Units: mg/k	ίg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual					
Diesel Range Organics (DRO)	43	10	50.00	0	85.6	68.9	135								
Surr: DNOP	4.3		5.000		86.3	70	130								
Sample ID: <b>MB-64478</b>	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics						

Sample ID: MB-64478	SampT	уре: <b>МЕ</b>	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	organics	
Client ID: PBS	Batch	ID: <b>64</b> 4	478	F	RunNo: 84	4516				
Prep Date: 12/14/2021	Analysis D	ate: 12	2/14/2021	8	SeqNo: 29	970115	Units: mg/K	(g		
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	9.0		10.00		90.1	70	130			

Sample ID: 2112830-001AMS	SampT	ype: <b>MS</b>	}	Tes	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID: S-17	Batch	ID: <b>64</b> 4	<b>178</b>	R	RunNo: 8	4516				
Prep Date: 12/14/2021	Analysis D	ate: 12	/14/2021	S	SeqNo: 2	970823	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.3	46.51	0	95.9	39.3	155			
Surr: DNOP	2.6		4.651		56.1	70	130			S

Sample ID: 2112830-001AMSD	SampT	ype: <b>M</b> \$	SD	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: S-17	Batch	ID: <b>64</b>	478	F	RunNo: 8	4516				
Prep Date: 12/14/2021	Analysis D	ate: 12	2/14/2021	S	SeqNo: 2	970824	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	9.6	47.89	0	100	39.3	155	7.13	23.4	
Surr: DNOP	2.8		4.789		59.3	70	130	0	0	S

#### Qualifiers:

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

Page 5 of 7

### Hall Environmental Analysis Laboratory, Inc.

2112830 20-Dec-21

WO#:

Client: ENSOLUM
Project: 6L 4 Lateral

Sample ID: MB SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: R84502 RunNo: 84502

Prep Date: Analysis Date: 12/14/2021 SeqNo: 2969459 Units: mq/Kq

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
 105
 70
 130

Sample ID: 2.5ug gro Ics SampType: LCS TestCode: EPA Method 8015D: Gasoline Range

Client ID: LCSS Batch ID: R84502 RunNo: 84502

Prep Date: Analysis Date: 12/14/2021 SeqNo: 2969460 Units: mg/Kg

**RPDLimit** Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD Qual Gasoline Range Organics (GRO) 5.0 25.00 O 110 78.6 131

Surr: BFB 1200 1000 118 70 130

Sample ID: 2112830-001ams SampType: MS TestCode: EPA Method 8015D: Gasoline Range

Client ID: **S-17** Batch ID: **R84502** RunNo: **84502** 

Prep Date: Analysis Date: 12/14/2021 SeqNo: 2970569 Units: mg/Kg

Result PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte LowLimit Qual Gasoline Range Organics (GRO) 20 3.8 19.22 0 103 61.3 114 Surr: BFB 70 860 768.6 112 130

Sample ID: 2112830-001amsd SampType: MSD TestCode: EPA Method 8015D: Gasoline Range

Client ID: S-17 Batch ID: R84502 RunNo: 84502

Prep Date: Analysis Date: 12/14/2021 SeqNo: 2970571 Units: mq/Kq

SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte Result PQL LowLimit Qual Gasoline Range Organics (GRO) 20 3.8 19.22 106 61.3 2.18 114 20 Surr: BFB 830 768.6 108 70 130 0 0

#### Qualifiers:

Value exceeds Maximum Contaminant Level

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 6 of 7

### Hall Environmental Analysis Laboratory, Inc.

WO#: **2112830** 

20-Dec-21

Client: ENSOLUM
Project: 6L 4 Lateral

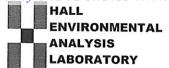
Sample ID: MB SampType: MBLK TestCode: EPA Method 8021B: Volatiles Client ID: PBS Batch ID: **BS84502** RunNo: 84502 Prep Date: Analysis Date: 12/14/2021 SeqNo: 2969467 Units: mg/Kg Analyte PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Result Benzene ND 0.025 Toluene ND 0.050 Ethylbenzene ND 0.050 Xylenes, Total ND 0.10 0.96 1.000 95.5 70 130 Surr: 4-Bromofluorobenzene

Sample ID: 100ng btex Ics	Samp <sup>-</sup>	Гуре: <b>LC</b>	s	TestCode: EPA Method 8021B: Volatiles									
Client ID: LCSS	Batc	h ID: BS	84502	F	RunNo: 8	4502							
Prep Date:	Analysis [	Date: 12	2/14/2021	\$	SeqNo: 2	969468	Units: mg/K	(g					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	0.87	0.025	1.000	0	87.4	80	120						
Toluene	0.90	0.050	1.000	0	90.0	80	120						
Ethylbenzene	0.93	0.050	1.000	0	92.6	80	120						
Xylenes, Total	2.7	0.10	3.000	0	91.1	80	120						
Surr: 4-Bromofluorobenzene	0.98		1.000		98.1	70	130						

#### Qualifiers:

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

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

### Sample Log-In Check List

Client Name: ENSOLUM	Work Order Num	ber: 2112830		RcptNo:	1
Received By: Desiree Dominguez	12/14/2021 8:10:00	) AM	Da		
Completed By: Sean Livingston Reviewed By:	12/14/2021 8:15:46 (Z/14/4	6 AM	Sala	got-	
Chain of Custody					
1. Is Chain of Custody complete?		Yes 🗸	No 🗌	Not Present	
2. How was the sample delivered?		Courier			
<u>Log In</u>					
3. Was an attempt made to cool the samples	?	Yes 🗸	No 🗌	NA 🗌	
4. Were all samples received at a temperature	e 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 🗆		
$7_{\cdot}$ Are samples (except VOA and ONG) prope	rly preserved?	Yes 🗸	No 🗌		
8. Was preservative added to bottles?		Yes 🗌	No 🗸	NA 🗌	
9. Received at least 1 vial with headspace <1/	4" for AQ VOA?	Yes 🗌	No 🗌	NA 🗸	
10. Were any sample containers received brok	en?	Yes	No 🗹	# of preserved	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗸	No 🗆	bottles checked for pH:	>12 upless noted)
12. Are matrices correctly identified on Chain of	Custody?	Yes 🗹	No 🗆	Adjusted?	
13. Is it clear what analyses were requested?		Yes 🗸	No 🗆		1 1
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗹	No 🗆	Checked by:	n 12/14/21
Special Handling (if applicable)			/		
15. Was client notified of all discrepancies with	this order?	Yes 🗌	No 🗌	NA 🗹	
Person Notified:	Date				
By Whom:	Via:	eMail	Phone  Fax	☐ In Person	
Regarding:					
Client Instructions:					
16. Additional remarks:					
17. Cooler Information					
Cooler No Temp °C Condition S	eal Intact Seal No	Seal Date	Signed By		
1 1.9 Good					

Chain-of-Custody Record  Client: Ensolum LLC  Mailing Address: 606 S. Rio Grando Suite A  Patec INIM 87410  Phone #: email or Fax#: Ksummers e.ensolum.com  QA/QC Package:  Standard Level 4 (Full Validation)				Project #: See notes			HALL ENVIRONMENTAL ANALYSIS LABORATORY  www.hallenvironmental.com  4901 Hawkins NE - Albuquerque, NM 87109  Tel. 505-345-3975 Fax 505-345-4107  Analysis Request  (1708)  Analysis Request											Received by OCD: 2/15/2012 8:03:54 AM	
Accred  NEL  EDD		□ Az Co □ Other	Sample Name	Container	✓ Yes	1-0.0=1.9° (°C)  HEAL No.  2117830	HE/	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082	hod 504	PAHS BY 8310 OF 8270	Cl, F, Br, NO <sub>3</sub> , NO <sub>2</sub> ,	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chloride			
12/13/21	1300	S	S-17	1 x 402 Jar	C001	201	×	X								X			
12/13/21	1305	S	S-18	1x402 Jar	C001	500	$\times$	×								X			
12/13/21	1310	S	S-19	1×4025ar	COOL	903	X	X			=1					X			
																	1 1		
Date:	Time:	Relinquished by:  Relinquished by:		Received by:	Via:	Date Time    12/13/21   628   Date Time		Remarks: SAME DAY PM-Tom Long (EPROD) PAYKEY-RB21200									Pag		
12/13/21	1802	M	witted to Hall Environmental may be subc	1003	Courier	12/14/21 8:10													Page 78 of

District I
1625 N. French Dr., Hobbs, NM 88240
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**State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505** 

CONDITIONS

Action 81535

#### **CONDITIONS**

Operator:	OGRID:
Enterprise Field Services, LLC	241602
PO Box 4324	Action Number:
Houston, TX 77210	81535
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By	Condition	Condition Date
nvelez	None	6/23/2022