

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

Responsible Party

Responsible Party: Enterprise Field Services, LLC	OGRID: 241602
Contact Name: Thomas Long	Contact Telephone: 505-599-2286
Contact email: tjlong@eprod.com	Incident # (assigned by OCD): nAPP2110632433
Contact mailing address: 614 Reilly Ave, Farmington, NM 87401	

Location of Release Source

Latitude **36.566719** Longitude **-107.456677** (NAD 83 in decimal degrees to 5 decimal places)

Site Name Lateral K-54 Condensate Tank Riser	Site Type Natural Gas Gathering Pipeline
Date Release Discovered: : 4/15/2021	Serial Number (if applicable): N/A

Unit Letter	Section	Township	Range	County
C	22	27N	6W	Rio Arriba

Surface Owner: State Federal Tribal Private (Name: **Scotty Cox**)

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Condensate	Volume Released (bbls): 15-20 BBLS	Volume Recovered (bbls): None
<input checked="" type="checkbox"/> Natural Gas	Volume Released (Mcf): 1 MCF	Volume Recovered (Mcf): None
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units):	Volume/Weight Recovered (provide units)

Cause of Release: On April 15, 2021, Enterprise had a release of natural gas and condensate from the Lateral K-54 Drip Tank Riser. The released fluids impacted an area of approximately three feet in diameter. No standing liquids. No washes/waterways were affected. No residences were affected. Remediation activities were completed on June 23, 2021. The final excavation dimensions measured approximately 63 feet long by 23 feet wide by 16 feet deep. Approximately 1,507 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.

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

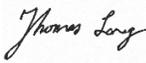
The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled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

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

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

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

Printed Name: Thomas Long Title: Senior Environmental Scientist

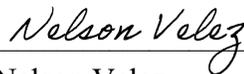
Signature:  Date: 12-7-2021

email: tjlong@eprod.com Telephone: (505) 599-2286

OCD Only

Received by: _____ Date: _____

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

Closure Approved by:  Date: 01/06/2022

Printed Name: Nelson Velez Title: Environmental Specialist - Adv

Closure Report Approved, Release Resolved.



CLOSURE REPORT

Property:

**Lateral K-54 Condensate Tank Riser (4/15/21)
Unit Letter C, S22 T27N R6W
Rio Arriba County, New Mexico**

NM EMNRD OCD Incident ID No. NAPP2110632433

September 1, 2021
Ensolum Project No. 05A1226145

Prepared for:

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

Prepared by:

A handwritten signature in blue ink, appearing to read "Chad D'Aponti".

Chad D'Aponti
Field Environmental Scientist

A handwritten signature in blue ink, appearing to read "Rane Deechilly".

Rane Deechilly
Environmental Scientist

A handwritten signature in blue ink, appearing to read "Kyle Summers".

Kyle Summers, CPG
Sr. Project Manager

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CLOSURE REPORT

**Lateral K-54 Condensate Tank Riser (4/15/21)
Unit Letter C, S22 T27N R6W
Rio Arriba County, New Mexico**

Ensolum Project No. 05A1226145

1.0 INTRODUCTION

1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
Site Name:	Lateral K-54 Condensate Tank Riser (4/15/21) (Site)
NM EMNRD OCD Incident ID No.	NAPP2110632433
Location:	36.566719° North, 107.456677° West Unit Letter C, Section 22, Township 27 North, Range 6 West Rio Arriba County, New Mexico
Property:	Private
Regulatory:	New Mexico (NM) Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On April 9, 2021, a release of natural gas and condensate occurred from the Lateral K-54 condensate tank riser. The resulting release was characterized by soil discoloration at the ground surface. Soil remediation activities began on April 14, 2021. On April 15, 2021, Enterprise upgraded the Site to a “reportable” release due to the estimated volume of impacted soil and the NM EMNRD OCD was notified.

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

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Enterprise Field Services, LLC
Lateral K-54 Condensate Tank Riser (4/15/21)
September 1, 2021



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 a one mile radius of the Site. In addition, no PODs were identified in the adjacent Public Land Survey System (PLSS) sections (**Figure A, Appendix B**).

- Numerous cathodic protection wells (CPWs) were identified in the NM EMNRD OCD imaging database within one mile of the Site and in adjacent PLSS sections. The approximate locations of the four closest CPWs are depicted on **Figure B (Appendix B)**. One CPW is associated with the San Juan 28-6 Unit #6, #95, #11 oil/gas production wells and is located approximately 0.3 miles northwest of the site and at a higher elevation (6,501 feet, according to the well record) than the Site (6,370 feet), with a reported depth to water of 180 feet bgs. The second CPW is associated with the Rincon #29A MV and Rincon #120 PC oil/gas production wells and is located approximately 0.3 miles southwest of the site and at a higher elevation (6,468 feet, according to the well record) than the Site, with a reported depth to water of 60 feet bgs. The third CPW is associated with the Rincon Unit #118 PC, Rincon Unit #29 MV, and Rincon #181 DK oil/gas production wells and is located approximately 0.4 miles southeast of the site and at a higher elevation (6,570 feet, according to the well record) than the Site, with reported depth to water ranging from 85 to 95 feet bgs. The fourth CPW is associated with the San Juan 28-6 Unit #27A and #84 oil/gas production wells and is located approximately 0.4 miles northeast of the site and at a higher elevation (6,462 feet, according to the well record) than the Site, with a reported depth to water of 130 feet bgs.
- The Site is located within 300 feet of a NM EMNRD OCD-defined continuously flowing watercourse or significant watercourse. The Site is located approximately 40 feet west of Martinez Canyon Wash (**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 is not located 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 unlikely to be located within a 100-year floodplain (**Figure H, Appendix B**).

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

Tier I Closure Criteria for Soils Impacted by a Release		
Constituent ¹	Method	Limit
Chloride	EPA 300.0 or SM4500 Cl B	600 mg/kg
TPH (GRO+DRO+MRO) ²	EPA SW-846 Method 8015	100 mg/kg
BTEX ³	EPA SW-846 Method 8021 or 8260	50 mg/kg
Benzene	EPA SW-846 Method 8021 or 8260	10 mg/kg

¹ – Constituent concentrations are in milligrams per kilograms (mg/kg).

² – Total Petroleum Hydrocarbons (TPH). Gasoline Range Organics (GRO). Diesel Range Organics (DRO). Motor Oil/Lube Oil Range Organics (MRO).

³ – Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX).

3.0 SOIL REMEDIATION ACTIVITIES

On April 14, 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 63 feet long and 23 feet wide at the maximum extents. The maximum depth of the excavation measured approximately 16 feet bgs. The lithology encountered during the completion of remediation activities consisted primarily of unconsolidated silty clay and weathered shale underlain by sandstone.

Approximately 1,507 cubic yards (yd³) of petroleum hydrocarbon affected soils/sandstone and 200 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**. At the request of the landowner, the excavation was backfilled with laboratory-confirmed stockpiled soils that were left over from a stock pond construction, and the area was then 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 pipelines (**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 20 composite soil samples (S-1 through S-20) from the excavation for laboratory analysis. Three composite soil samples (SP-1 through SP-3) were collected from the stockpiled soils to confirm the material was suitable to use as backfill. In addition, six composite soil samples were collected from test pits. The composite samples were comprised of five (5) 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 an excavator, operated by OFT, were utilized to obtain fresh aliquots from each area of the excavation. Wall sample depths were measured from the adjacent ground surface. The surface topography at the Site is sloped downward to the east/northeast resulting in shorter walls on the east side of the excavation. The floor samples were assigned an average depth based

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on the measured depth of the walls adjacent to the aliquot collection areas. The regulatory notification documentation is provided in **Appendix E**.

First Sampling Event

On May 24, 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 (14') was collected from the floor of the excavation near the release point.

Second Sampling Event

On May 26, 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 sample S-2 (14') and S-3 (13') were collected from the floor of the excavation.

Third Sampling Event

On June 2, 2021, a third 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-4 (10') and S-5 (8') were collected from the floor of the excavation. Composite soil sample S-6 (0'-8') was collected from the wall of the excavation.

Fourth Sampling Event

On June 14, 2021, a fourth sampling event was performed. The NM EMNRD OCD was notified of the sampling event although no representative was present during sampling activities. Composite soil sample S-7 (14') was collected from the floor of the excavation. Composite soil samples S-8 (0'-11'), S-9 (0'-12'), S-10 (0'-12'), S-11 (0'-12'), S-12 (0'-12'), S-13 (0'-16'), and S-14 (0'-16') were collected from the walls of the excavation. Subsequent soil analytical results identified COC concentrations that exceeded the NM EMNRD OCD closure criteria for composite soil sample S-14. Due to safety concerns regarding support of the 10-inch drip vessel, further excavation to the west was temporarily halted.

Fifth Sampling Event

On June 17, 2021, the NM EMNRD OCD approved a request by Enterprise to partially backfill the excavation and to advance test pits west of the 10-inch drip vessel to determine the extent of hydrocarbon impact to the west. During this time and with approval from the landowner, the United States Bureau of Land Management (BLM), and the NM EMNRD OCD, stockpiled native fill was obtained from a BLM stock pond and brought to the Site for use as backfill material. The fifth sampling event was performed on the same day. Composite soil samples (SP-1 through SP-3) were collected from the stockpiled soils to demonstrate that the soils did not exhibit COC impact and that they were suitable for use as backfill.

Sixth Sampling Event

On June 22, 2021, a sixth 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-15 (0'-15') and S-16 (0'-9') were collected from the walls of the excavation. Composite soil samples S-17 (12') and S-18 (12') were collected from floor of the excavation.

Seventh Sampling Event

On June 23, 2021, three test pits were advanced west of the 10-inch drip vessel and a seventh sampling event was performed. The NM EMNRD OCD was notified of the sampling event although no representative was present during sampling activities. Soil samples TP-1a (0'-8') (wall), TP-1b (9') (floor), TP-2a (0'-14') (wall), TP-2b (15') (floor), TP-3a (0'-15') (wall), and TP-3b (16') (floor) were collected from test pits. Subsequent soil analytical results identified COC concentrations that exceeded the NM EMNRD OCD closure criteria for soil sample TP-1a. The excavation was extended to the west in the vicinities of composite soil samples S-14 and TP-1a. Soils associated with composite soil samples S-14 and TP-1a were removed by excavation and transported to the landfarm for disposal/remediation.

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Eighth Sampling Event

On June 28, 2021, an eighth 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-19 (0'-9') and S-20 (0'-16') were collected from the walls of the excavation to replace soil samples S-14 and TP-1a.

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 or #8260; TPH GRO/DRO/MRO using EPA SW-846 Method #8015; and chlorides using EPA Method #300.0. The composite soil samples collected from the stockpiled BLM pond soils were also analyzed for sulfates using EPA Method #300.0.

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

6.0 DATA EVALUATION

Ensolum compared the BTEX, TPH, and chloride laboratory analytical results associated with the composite soil samples (S-1 through S-13, S-15 through S-20, SP-1 through SP-3, TP-1b, TP-2a, TP-2b, TP-3a, and TP-3b) to the applicable NM EMNRD OCD Tier I closure criteria. In the event that the laboratory did not quantify a result for BTEX or chloride, Ensolum compared the laboratory supplied practical quantitation limits (PQLs) / reporting limits (RLs) to the NM EMNRD OCD closure criteria. Due to the high PQLs/RLs associated with the TPH MRO range when using EPA SW-846 Method #8015, Ensolum only compared the quantified results to the NM EMNRD OCD closure criteria. The soils associated with composite soil samples S-14 and TP-1a were transported to Envirotech landfarm for disposal/remediation and are not included in the following discussion.

- The laboratory analytical result for composite soil sample S-3 indicates a benzene concentration of 0.021 mg/kg, which is less than the applicable NM 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 that 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-2, S-3, S-7, and S-15 indicate total BTEX concentrations ranging from 0.36 mg/kg (S-15) to 2.1 mg/kg (S-7), 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 that 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-2, S-3, S-6, S-7, S-10, S-15, S-16, and TP-1b indicate combined TPH GRO/DRO/MRO concentrations ranging from 11 mg/kg (TP-1b) to 72 mg/kg (S-15), which are less than the applicable NM EMNRD OCD closure criteria of 100 mg/kg. The laboratory analytical results for all other composite soil samples collected from soils remaining at the Site indicate that total combined TPH GRO/DRO/MRO is not present at

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Lateral K-54 Condensate Tank Riser (4/15/21)
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concentrations greater than the laboratory PQLs/RLs, which are less than the applicable NM EMNRD OCD closure criteria of 100 mg/kg.

- The laboratory analytical results for the composite soil samples collected from soils remaining at the Site indicate chloride concentrations ranging from below the laboratory PQLs/RLs to 180 mg/kg (S-10), which are less than the applicable NM EMNRD OCD closure criteria of 600 mg/kg.
- The laboratory analytical results for composite soil samples SP-1, SP-2, and SP-3 indicate sulfate concentrations of 24 mg/kg, 21 mg/kg, and 28 mg/kg, respectively. The NM EMNRD OCD has no established closure criteria for sulfate.

The laboratory analytical results are summarized in **Table 1 (Appendix F)**.

7.0 RECLAMATION AND REVEGETATION

The excavation was backfilled with laboratory-confirmed stockpiled soil and was then contoured to surrounding grade.

8.0 FINDINGS AND RECOMMENDATION

- Twenty-nine 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 1,507 yd³ of petroleum hydrocarbon affected soils/sandstone and 200 bbls of hydro-excavation soil cuttings and water were transported to the Envirotech landfarm for disposal/remediation. The excavation was backfilled with imported fill and laboratory-confirmed stockpiled soils 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

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Enterprise Field Services, LLC
Lateral K-54 Condensate Tank Riser (4/15/21)
September 1, 2021



encountered at actual sample locations. Ensolum's findings and recommendation are based solely upon data available to Ensolum at the time of these services.

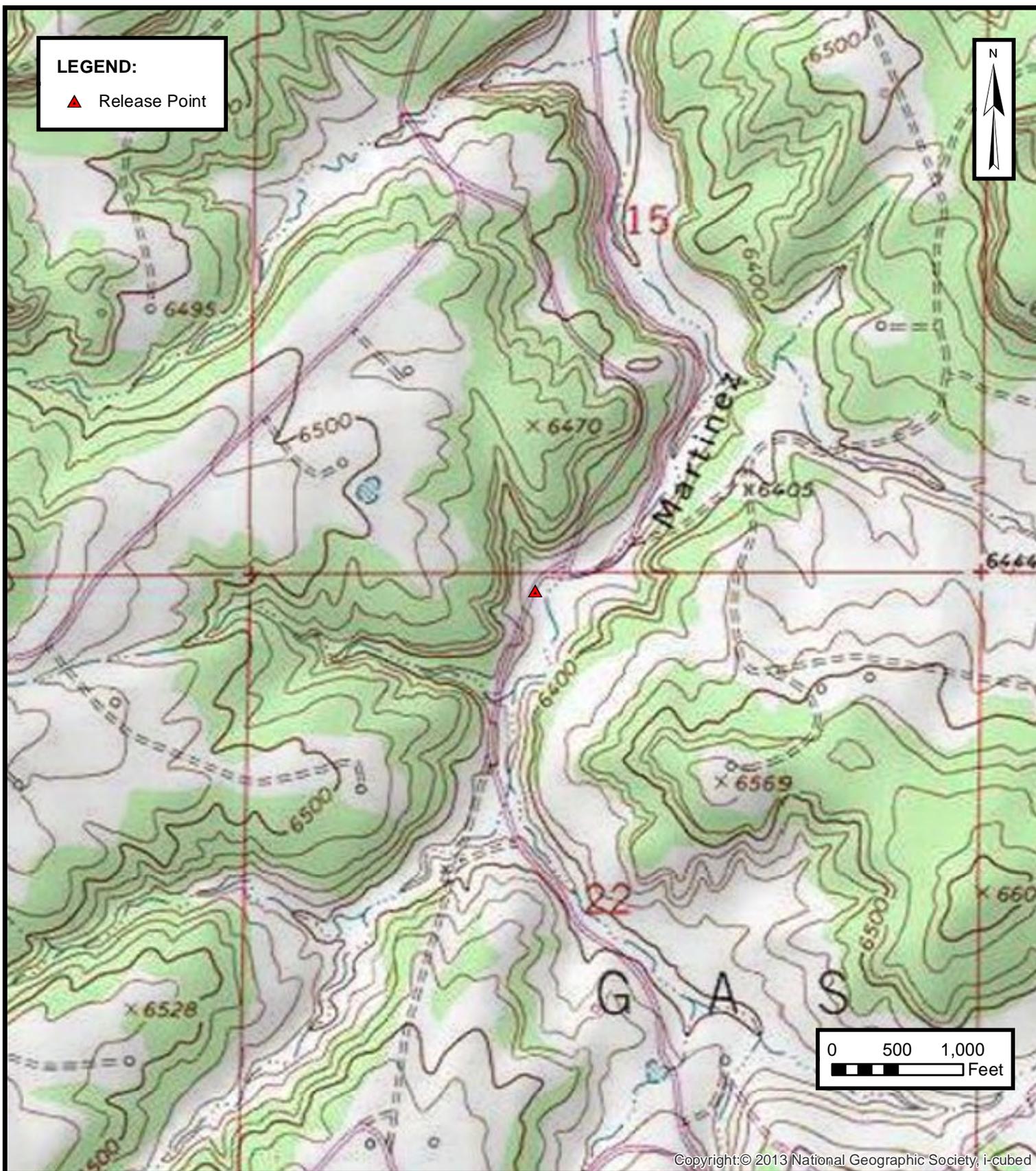
9.3 Reliance

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



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ENSOLUM
Environmental & Hydrogeologic Consultants

TOPOGRAPHIC MAP

ENTERPRISE FIELD SERVICES, LLC
 LATERAL K-54 CONDENSATE TANK RISER
 Unit Letter C, S22 T27N R6W, Rio Arriba County, New Mexico
 36.566719° N, 107.456677° W

PROJECT NUMBER: 05A1226145

FIGURE
1

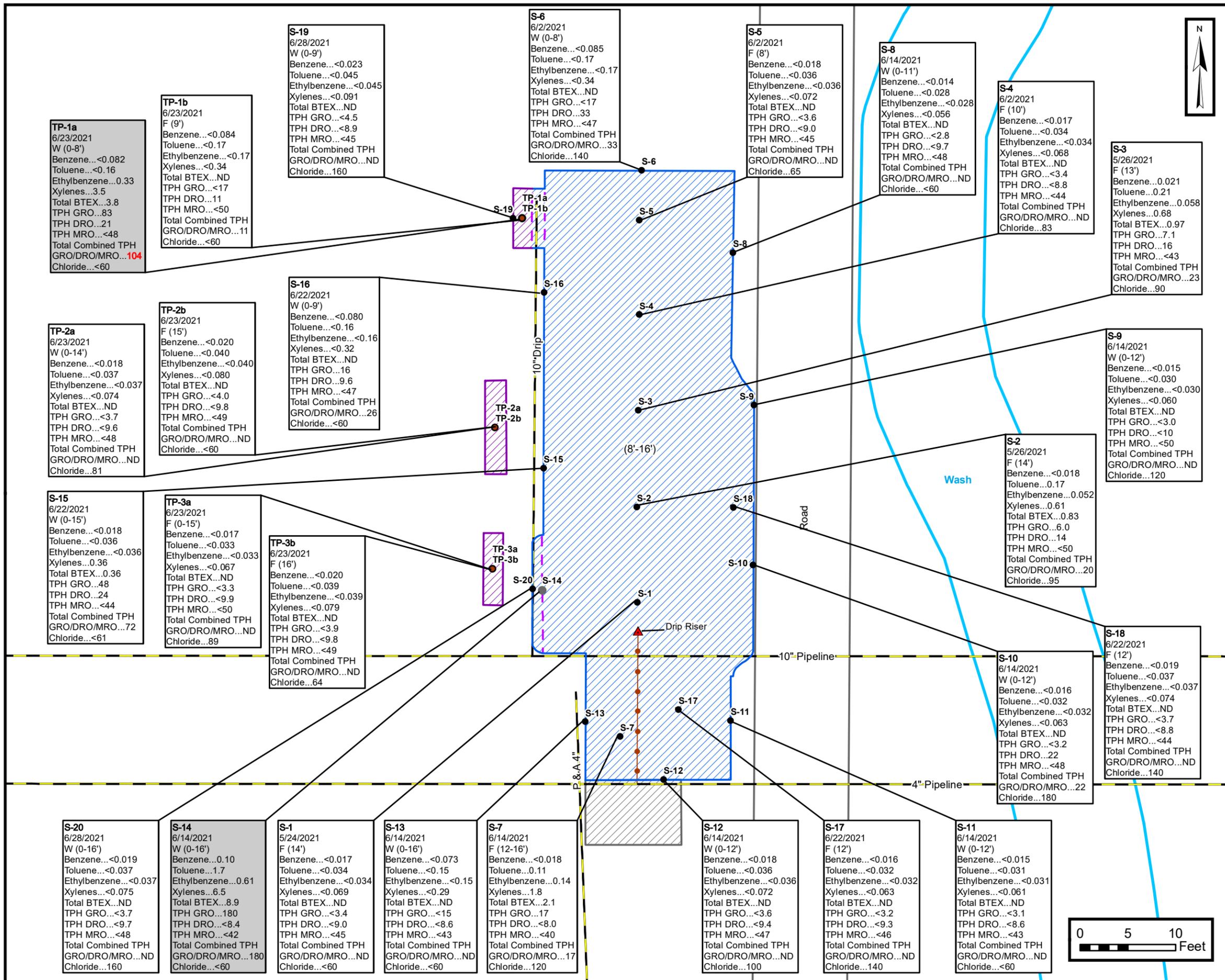


SITE VICINITY MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL K-54 CONDENSATE TANK RISER
Unit Letter C, S22 T27N R6W, Rio Arriba County, New Mexico
36.566719° N, 107.456677° W

PROJECT NUMBER: 05A1226145

FIGURE
2



LEGEND:

- ▲ Release Point
- Composite Soil Sample Location
- Composite Soil Sample Location Removed by Excavation
- Test Pit Soil Sample Location
- Extent of Excavation
- Test Pit
- Bench
- Former Sidewall
- Approximate Pipeline Location
- Former Drip Line

NOTES:

- All Concentrations Are Listed in mg/Kg.
- All Depths Are Listed in Feet BGS.
- W - Wall Sample
- F - Floor Sample
- Concentrations in **Red** Exceed the Applicable NM EMNRD OCD Closure Criteria.
- Analytical Callouts in Gray Denote Sampling Location Removed by Excavation.



SITE MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL K-54 CONDENSATE TANK RISER

Unit Letter C, NW ¼, S22 T27N R6W
Rio Arriba County, New Mexico
36.566719° N, 107.456677° W

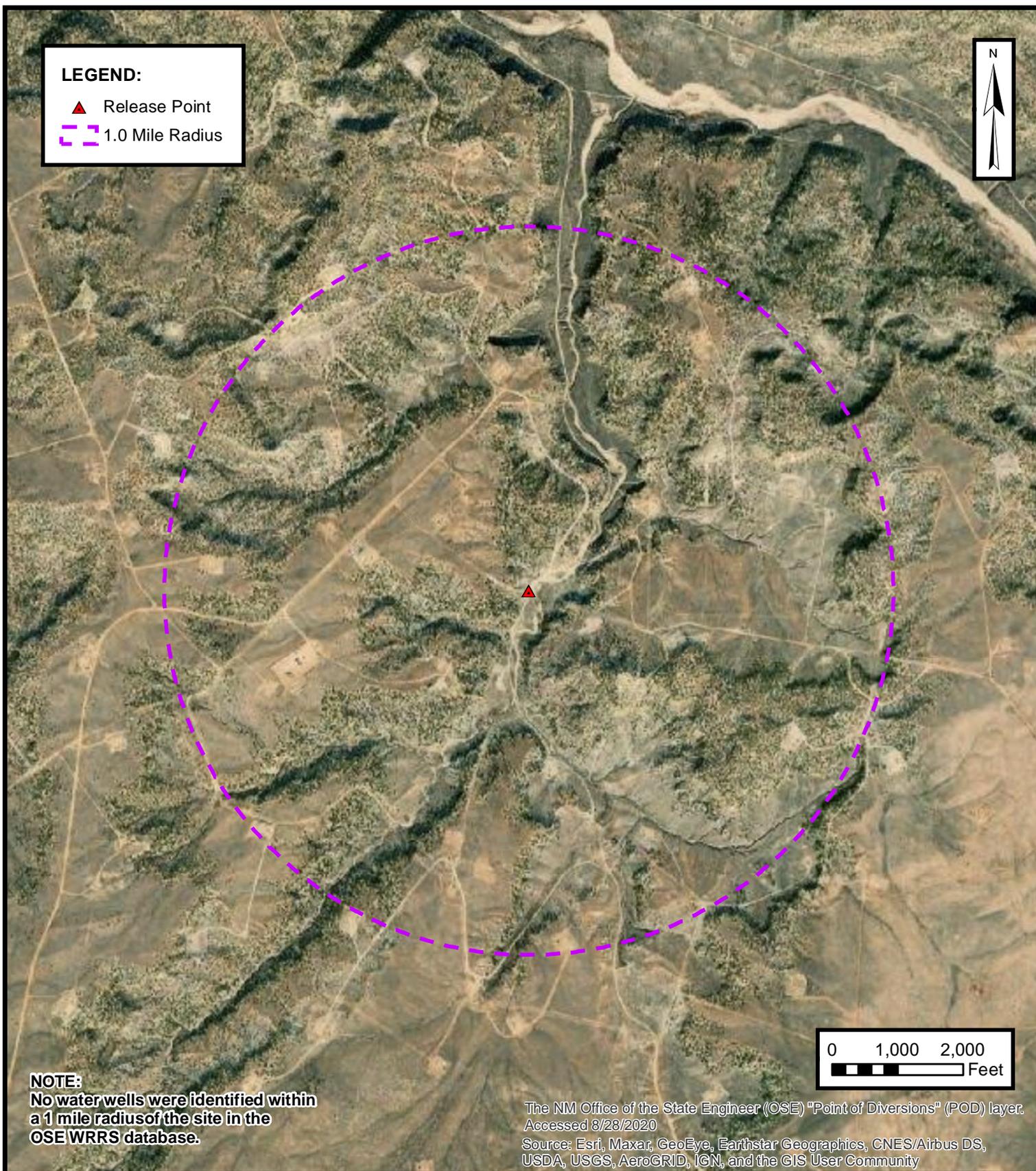
FIGURE 3

PROJECT NUMBER: 05A1226145



APPENDIX B

Siting Figures and Documentation

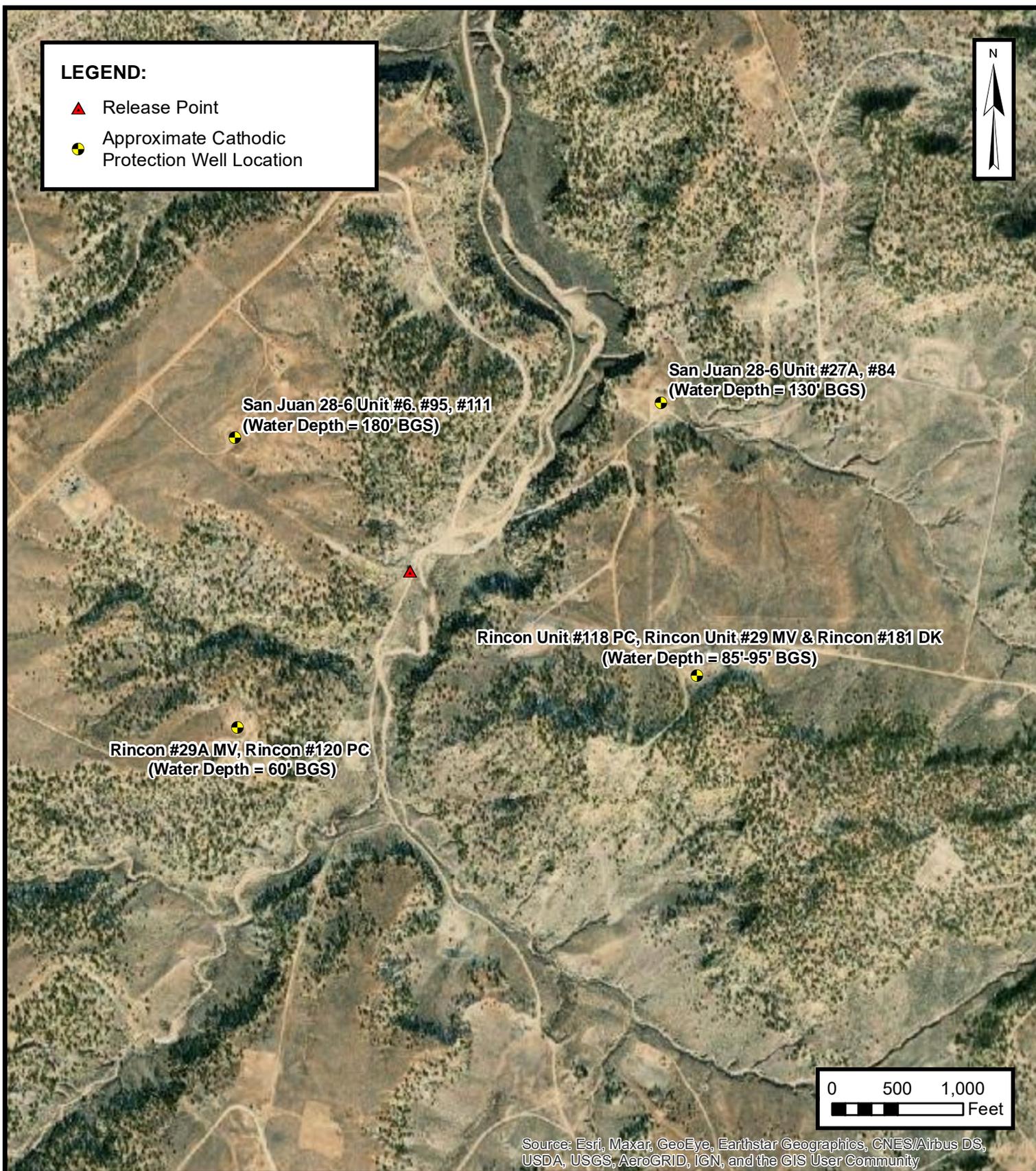


1.0 MILE RADIUS WATER WELL/ POD LOCATION MAP

ENTERPRISE FIELD SERVICES, LLC
 LATERAL K-54 CONDENSATE TANK RISER
 Unit Letter C, S22 T27N R6W, Rio Arriba County, New Mexico
 36.566719° N, 107.456677° W

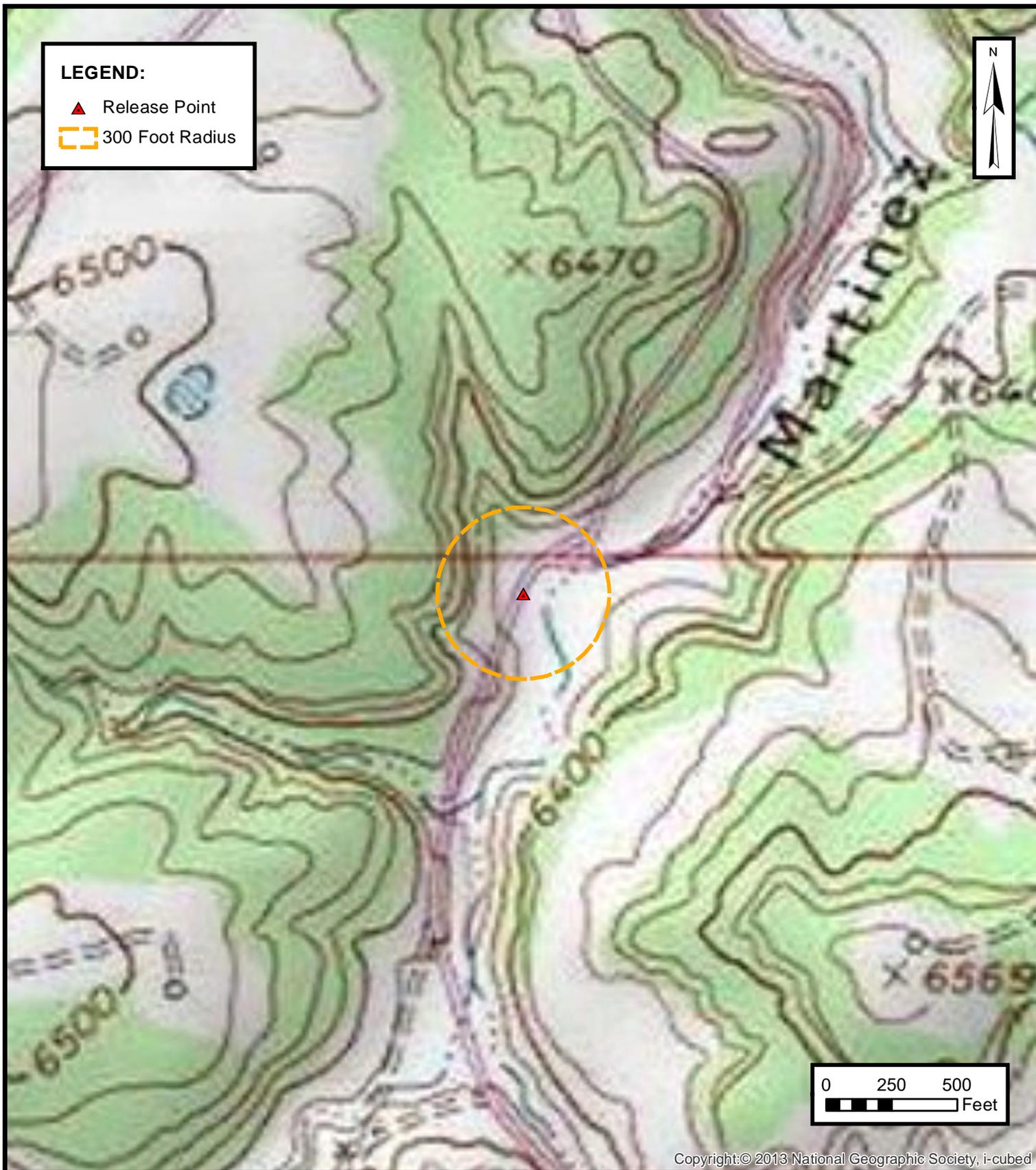
PROJECT NUMBER: 05A1226145

FIGURE
A



**CATHODIC PROTECTION WELL RECORDED
 DEPTH TO WATER**
 ENTERPRISE FIELD SERVICES, LLC
 LATERAL K-54 CONDENSATE TANK RISER
 Unit Letter C, S22 T27N R6W, Rio Arriba County, New Mexico
 36.566719° N, 107.456677° W
 PROJECT NUMBER: 05A1226145

**FIGURE
 B**



ENSOLUM
Environmental & Hydrogeologic Consultants

300 FOOT RADIUS
WATERCOURSE AND DRAINAGE IDENTIFICATION
 ENTERPRISE FIELD SERVICES, LLC
 LATERAL K-54 CONDENSATE TANK RISER
 Unit Letter C, S22 T27N R6W, Rio Arriba County, New Mexico
 36.566719° N, 107.456677° W
 PROJECT NUMBER: 05A1226145

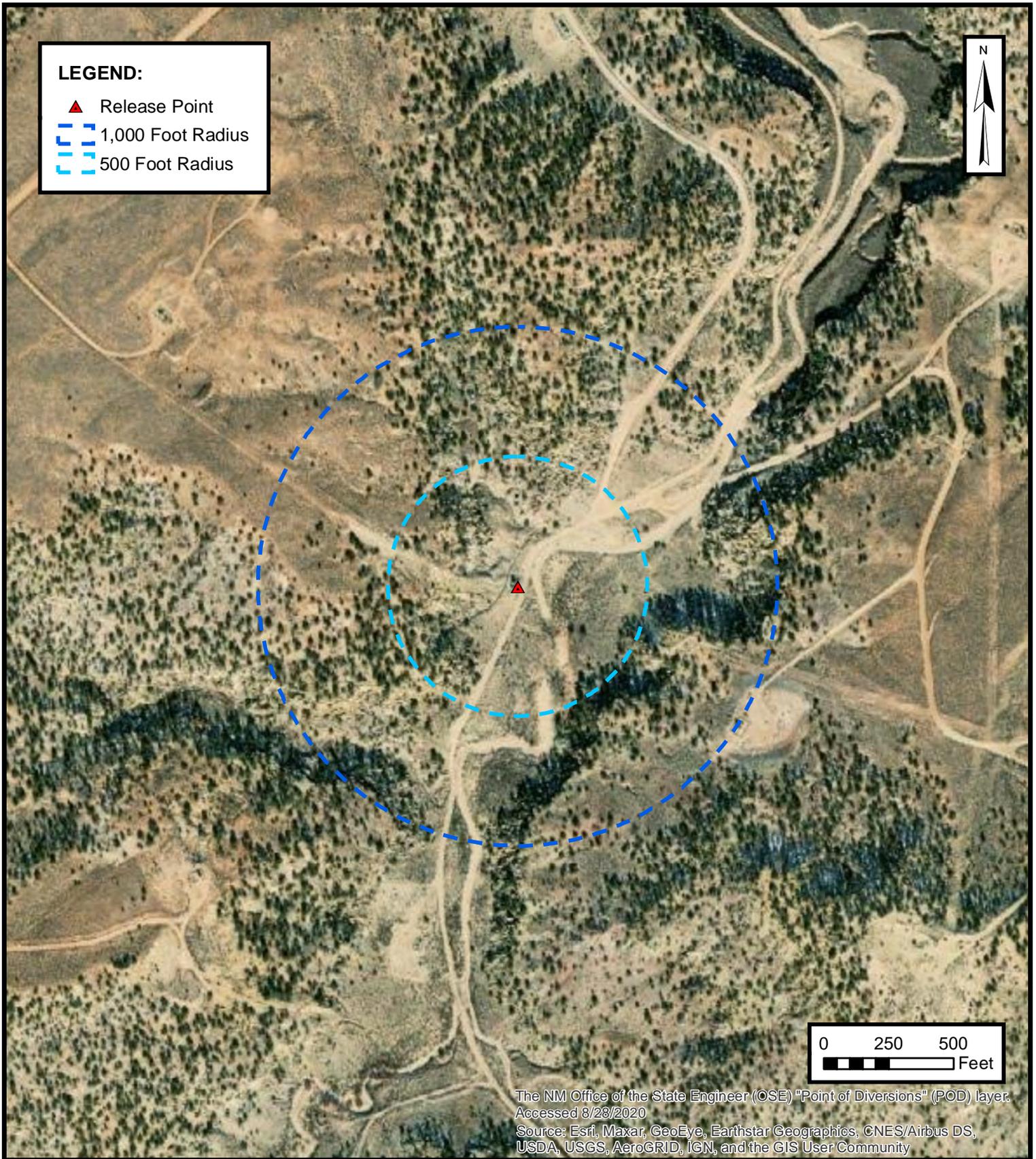
FIGURE
C



ENSOLUM
Environmental & Hydrogeologic Consultants

**300 FOOT RADIUS
OCCUPIED STRUCTURE IDENTIFICATION**
ENTERPRISE FIELD SERVICES, LLC
LATERAL K-54 CONDENSATE TANK RISER
Unit Letter C, S22 T27N R6W, Rio Arriba County, New Mexico
36.566719° N, 107.456677° W
PROJECT NUMBER: 05A1226145

**FIGURE
D**

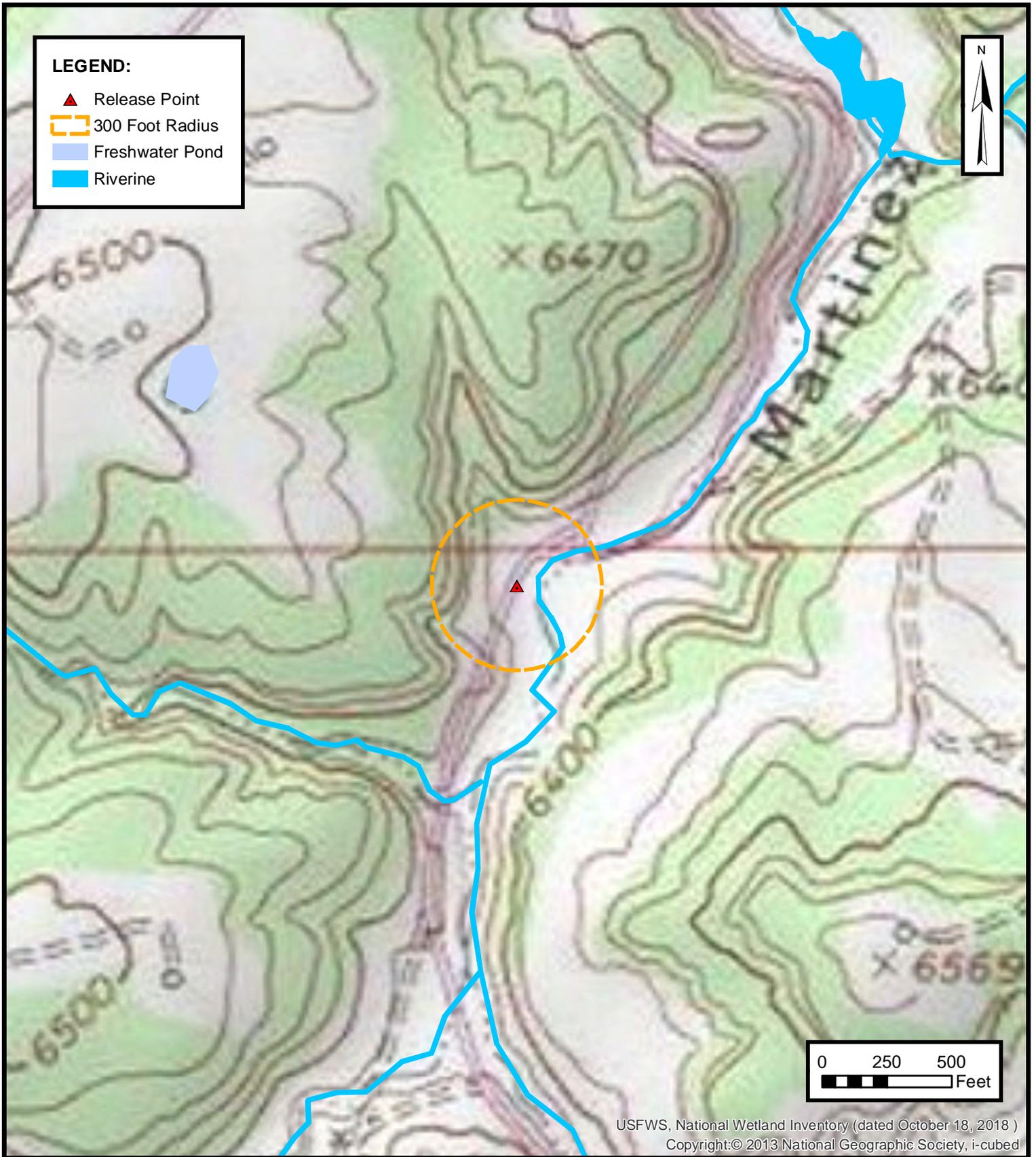


WATER WELL AND NATURAL SPRING LOCATION

ENTERPRISE FIELD SERVICES, LLC
 LATERAL K-54 CONDENSATE TANK RISER
 Unit Letter C, S22 T27N R6W, Rio Arriba County, New Mexico
 36.566719° N, 107.456677° W

PROJECT NUMBER: 05A1226145

FIGURE
E



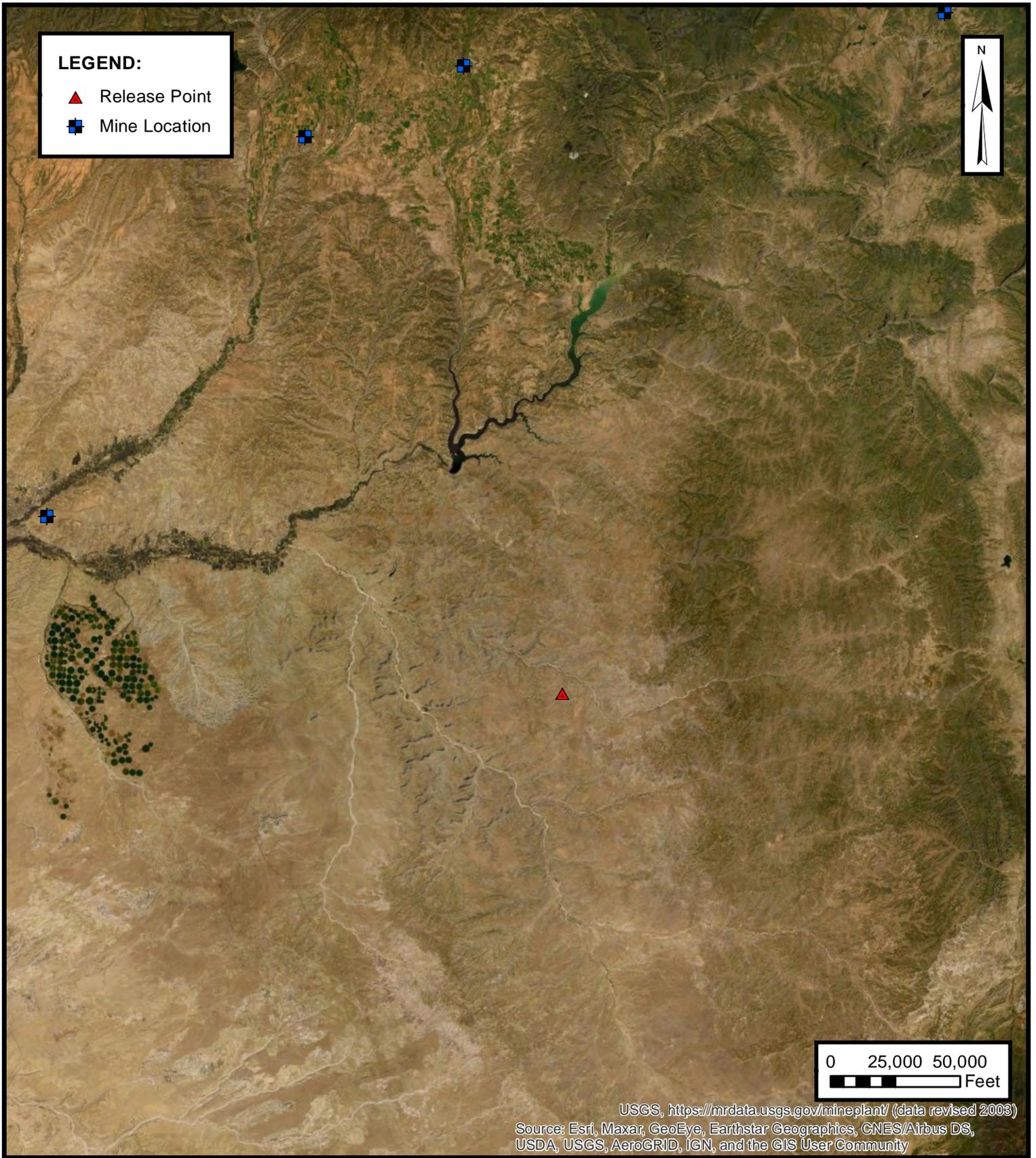
ENSOLUM
Environmental & Hydrogeologic Consultants

WETLANDS

ENTERPRISE FIELD SERVICES, LLC
LATERAL K-54 CONDENSATE TANK RISER
Unit Letter C, S22 T27N R6W, Rio Arriba County, New Mexico
36.566719° N, 107.456677° W

PROJECT NUMBER: 05A1226145

FIGURE
F



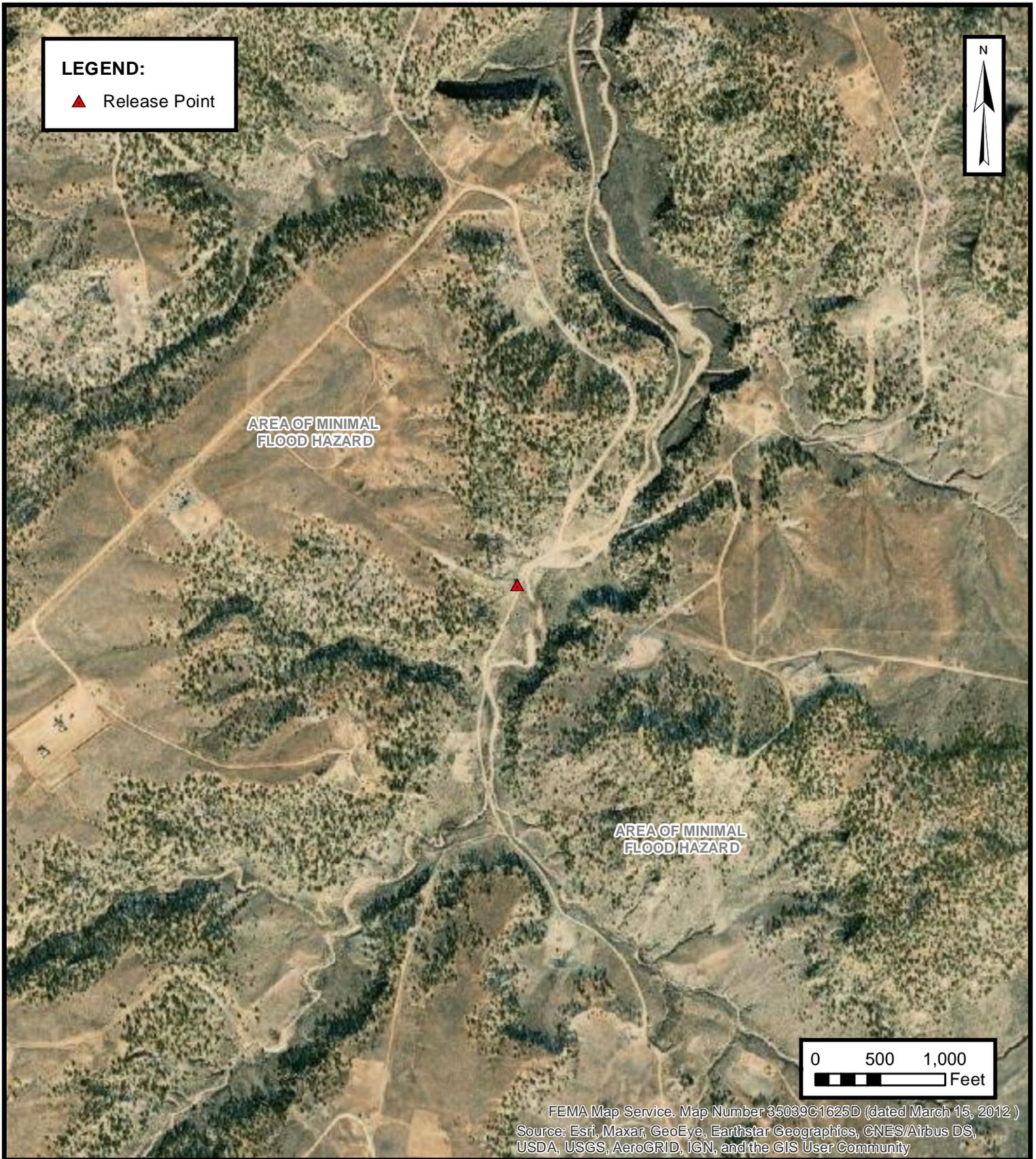
ENSOLUM
Environmental & Hydrogeologic Consultants

MINES, MILLS AND QUARRIES

ENTERPRISE FIELD SERVICES, LLC
LATERAL K-54 CONDENSATE TANK RISER
Unit Letter C, S22 T27N R6W, Rio Arriba County, New Mexico
36.566719° N, 107.456677° W

PROJECT NUMBER: 05A1226145

FIGURE
G




ENSOLUM
Environmental & Hydrogeologic Consultants

100-YEAR FLOOD PLAIN MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL K-54 CONDENSATE TANK RISER
Unit Letter C, S22 T27N R6W, Rio Arriba County, New Mexico
36.566719° N, 107.456677° W

PROJECT NUMBER: 05A1226145

FIGURE
H



New Mexico Office of the State Engineer Water Column/Average Depth to Water

No records found.

PLSS Search:

Section(s): 22, 15, 16, 14,
23, 21, 26, 27,
28 **Township:** 27N **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, usability, or suitability for any particular purpose of the data.

#120 30-039-06988

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator Union Oil Company of California Location: Unit Sec. 22 Twp 27N Rng 6W

Name of Well/Wells or Pipeline Serviced Rincon #29A MV Rincon #120 PC

Elevation 6468' Completion Date 8/22/79 Total Depth 380' Land Type* F

Casing, Sizes, Types & Depths None

If Casing is cemented, show amounts & types used None

If Cement or Bentonite Plugs have been placed, show depths & amounts used
None

Depths & thickness of water zones with description of water when possible:
Fresh, Clear, Salty, Sulphur, Etc. 35' to 65' deep 30' thick Fresh

Depths gas encountered: NA

Type & amount of coke breeze used: type unknown 3400 lbs

Depths anodes placed: 115' to 265'

Depths vent pipes placed: 360'

Vent pipe perforations: 300'

Remarks: El Paso Natural Gas Co. was the operator at the time this ground bed was installed.
First ground bed installed at this location

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.

RECEIVED
MAY 14 1990
OIL CON. DIV.
DIST. 3

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

CONTRACT # 2

Drawing Log (Attach Hereto)

Completion Date 8-22-79

Well Name Rinson U. #29A & 120		Location NW 22-27-6		CPS No. 1390W	
Type & Size Pit Used 6 3/4"		2" x 60" DURIRON		Work Order No. 57365.21 & 53441.19	
Anode Hole Depth 380-375 TD		Total Drilling Feet 3900		No. Sacks Mud Used	
Anode Depth		Anode Output (Amps)		No. 2 C.P. Cable Used	
# 1	265	# 2	255	# 3	220
# 4	210	# 5	200	# 6	190
# 7	180	# 8	170	# 9	125
# 10	115				
# 1	3.4	# 2	3.4	# 3	2.3
# 4	3.0	# 5	3.1	# 6	3.2
# 7	3.7	# 8	3.4	# 9	3.8
# 10	5.2				
Anode Depth		Anode Output (Amps)		No. 2 C.P. Cable Used	
# 11		# 12		# 13	
# 14		# 15		# 16	
# 17		# 18		# 19	
# 20					
Total Circuit Resistance		No. 1 C.P. Cable Used		No. 2 C.P. Cable Used	
Volts	11.3	Amps	14.7	Ohms	.77

Remarks: ST 1/3 #29A NW = .89 #120 SW = .74

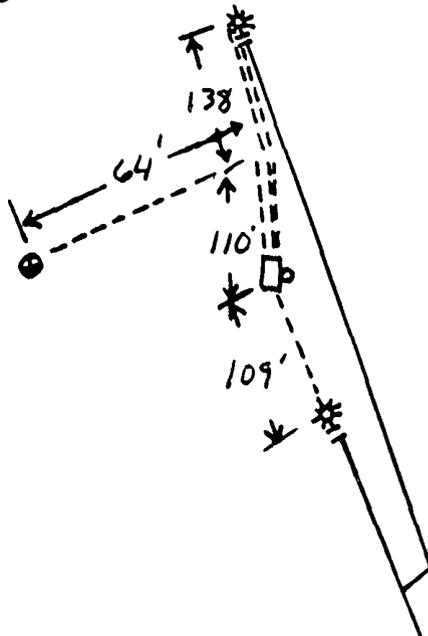
WATER AT 60' DRILLED TO 120' WATER STANDING IN HOLE
NEXT AM (APPROX 30 FT OFF WATER) SECOND WATER ZONE
AT 300' DRILLED 380' LOGGED 375' INSTALLED 360 FT
OF VENT PIPE 300 FT PERFORATED SLURRIED 39
SACKS OF COKE

Hole depth = -125
COU 30A Rect
STUB POLE
DITCH + CABLE = 421
EXTRA CABLE = 383

All Construction Completed

Robert J. Balnick
(Signature)

GROUND BED LAYOUT SKETCH



DISTRIBUTION:

- WHITE - Division Corrosion Office
- YELLOW - Area Corrosion Office
- PINK - Originator File

EL PASO NATURAL GAS COMPANY
 SAN JUAN DIVISION
 FARMINGTON, NEW MEXICO
 PRODUCTION DEPARTMENT WATER ANALYSIS

Analysis No. 1-9751 Date 10-24-79

Operator EPNG Well Name Rincon # 29 A

Location NW 22-27-6 County Rio Arriba State N.M.

Field _____ Formation _____

Sampled From 1390 W

Date Sampled _____ By _____

Tbg. Press. _____ Csg. Press. _____ Surface Csg. Press _____
 ppm epm ppm epm

Sodium 346 15 Chloride 20 .6

Calcium 8 .4 Bicarbonate 307 5

Magnesium 3 .2 Sulfate 485 10

Iron Present _____ Carbonate 0 0

H₂S Absent _____ Hydroxide 0 0

cc: D.C.Adams
 R.A.Ullrich
 E.R.Paulek
 J.W.McCarthy
 A.M.Smith
 W.B.Shropshire
 File
 C. B. O'Nan

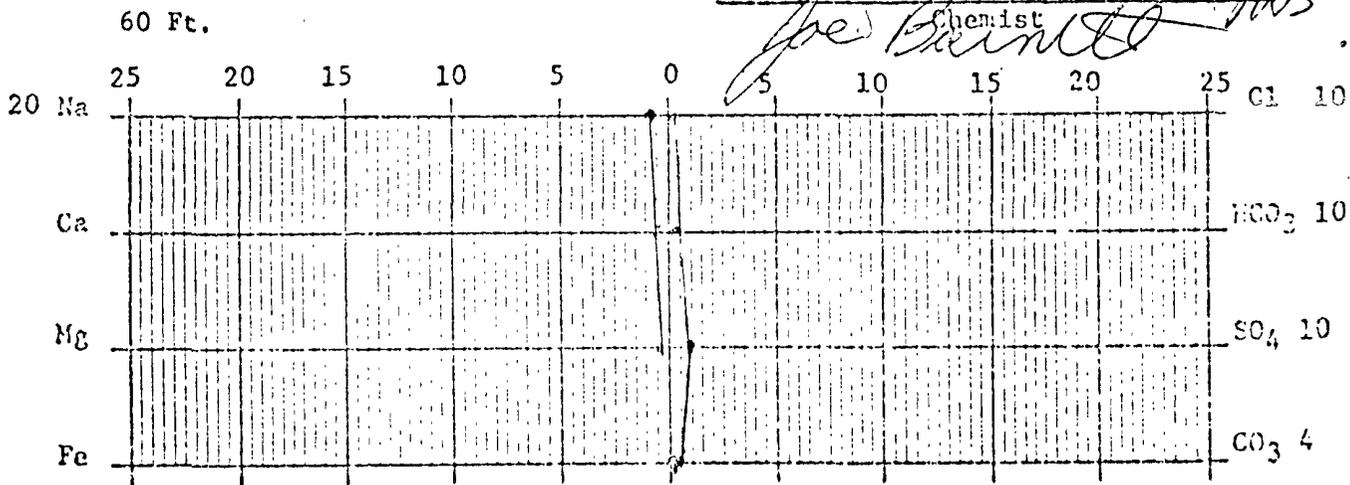
Total Solids Dissolved 1072

pH 8.0

Sp. Gr. 1.0015 at 60°F

Resistivity 635 ohm-cm at 77°F

Joe Burnett
 Chemist *JWS*



Scale: epm

1390-W NW 22-27-6
RINCON U. # 29A 57365.21 ST% = .89 NE
RINCON U. # 120 53441.19 ST% = .74 SW

11 hrs

MW		gals/mol
16 04	C ₁	6.4
30 07	C ₂	10.12
44 10	C ₃	10.42
58 12	iC ₄	12.38
58 12	nC ₄	11.93
72 15	iC ₅	13.85
72 15	nC ₅	13.71
86 18	iC ₆	15.50
86 18	C ₆	15.57
100 21	iC ₇	17.2
100 21	C ₇	17.46
114 23	C ₈	19.39
28 05	C ₂	9.64
42 08	C ₃	9.67

MW	MISC	gals/mol
32 00	O ₂	3.37
28 01	CO	4.19
44.01	CO ₂	6.38
64 06	SO ₂	5.50
34.08	H ₂ S	5.17
28.01	N ₂	4.16
2 02	H ₂	3.38

5		25	1.0-
10		30	.7
15		35	.6
20		40	.6
25		45	.6
30		50	.8
35		55	1.3-2
40		60	1.8
45		65	1.9-1
50		70	.9
55		75	.7
60		80	.5
65		85	.6
70	2.0	90	.8
75	2.1	95	.5
80	1.7	300	.4
85	1.7	5	.3
90	1.4	10	.3
95	1.4	15	.4
100		20	.4
5		25	.4
10	1.8	30	.5
15	2.1 - 10	35	.7
20	1.9	40	.4
25	1.5 - 9	45	.4
30	.8	50	.4
35	.6	55	.4
40	.6	60	.4
45	.4	65	.8
50	.5	70	
55	.5	75	
60	.5	80	
65	.5		
70	1.4 - 8		
75	1.9 -		
80	2.1 - 7		
85	1.9 -		
90	1.6 - 6		
95	1.5 -		
200	1.4 - 5		
5	1.4 -		
10	1.4 - 4		
15	1.3 -		
20	1.2 - 3		

WATER AT 60' DRILLED TO 120
WATER STANDING IN HOLE NEXT AM
DRILLED 380' LOGGED 375'
INSTALLED 360FT VENT
PIPE 300 FT PERFORATED
SLURRIED 39 SACKS OF
COKE

HOLE DEPTH = -125
600 30A Rect
STUB POLE
DITCH + CABLE = 421
EXTRA CABLE = 383
(INCLUDES 25' HOOKUP WIRE)

- ① 265 - 2.1 - 3.4
- ② 255 - 2.0 - 3.4
- ③ 220 - 1.2 - 2.3
- ④ 210 - 1.4 - 3.0
- ⑤ 200 - 1.5 - 3.1
- ⑥ 190 - 1.6 - 3.2
- ⑦ 180 - 2.1 - 3.7
- ⑧ 170 - 2.0 - 3.4
- ⑨ 125 - 1.6 - 3.8
- ⑩ 115 - 2.7 - 5.2

11.3 v 14.7A = .77 ohms

EL PASO NATURAL GAS COMPANY

DRILLING DEPARTMENT

DAILY DRILLING REPORT

1390W

Contract # 2

O'Briant

LEASE WELL NO. CONTRACTOR RIG NO. REPORT NO. DATE Aug 22 1979

MORNING

DAYLIGHT

EVENING

Table with columns for Driller, Total Men In Crew, and sub-columns for FROM, TO, FORMATION, WT-BIT, R.P.M. for Morning, Daylight, and Evening periods.

Table with columns for BIT NO., SERIAL NO., SIZE, TYPE, and TOTAL DEPTH for Morning, Daylight, and Evening periods.

MUD RECORD MUD, ADDITIVES USED AND RECEIVED

Mud record table with handwritten entries: 0-25 Sandstone, 25-35 Shale, 35-65 Sand - damp-water, 65-85 Sandy Shale.

Mud record table with handwritten entries: 85-90 Sandstone, 90-95 Shale, 95-100 Sandy Shale, 1-140 Sandstone, 140-150 Sandy Shale, 150-170 Sandstone.

REMARKS - Drilled 380 w/6 3/4, Logged 375, Water @ 60 ft, Estimate 15 gpm.

SIGNED: Toolpusher Tom O'Briant Company Supervisor

546 6-30-039-07048
95-30-039-07043

111-30-039-82308

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

Operator Meridian Oil Location: Unit M Sec. 15 Twp 27 Rng 6

Name of Well/Wells or Pipeline Served San Juan 286 #11, 95, 6
CPS # 682-W

Elevation 6501 Completion Date 8-31-91 Total Depth 500' Land Type F

Casing Strings, Sizes, Types & Depths 100' 8" PVC

If Casing Strings are cemented, show amounts & types used yes - 24 sacks

If Cement or Bentonite Plugs have been placed, show depths & amounts used
None

Depths & thickness of water zones with description of water: Fresh, Clear,
Salty, Sulphur, Etc. 180' - Fresh

Depths gas encountered: None

Ground bed depth with type & amount of coke breeze used: 500'
Asbury Coke - 152 Bags

Depths anodes placed: #1-485, #2-475, #3-465, #4-420, #5-410, #6-395, #7-260
#8-250, #9-225, #10-215, #11-205, #12-195

Depths vent pipes placed: From Surface to 500'

Vent pipe perforations: From 180' to 500'

Remarks: _____

RECEIVED
R FEB 24 1992

OIL CON DIV.
PCT 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.

CPS GROUND BED CONSTRUCTION WORKSHEET

CPS# 682 P/L NAME (S), NUMBER (S) San Juan 28-6 # 111, 95, 6
 WO # 44847A 50823A TOTAL VOLTS 12.6 AMPS 22.0 OHMS 1.57 DATE 8-31-91 NAME D. Ashworth

REMARKS (notes for construction log)

40-180'
 Per F-180-500'

DEPTH	LOG ANODE	ANODE	DEPTH	LOG ANODE	ANODE	DEPTH	LOG ANODE	ANODE	DEPTH	LOG ANODE	ANODE		
100			295	.7		490	1.6		685				
105			300	.5		495	2.0		690				
110			305	.5		500	TD-500		695				
115			310	.7		505			700				
120			315	.5		510			ANODE	DEPTH	NO.	FULLY	
125			320	.5		515					COKE	COK' E	
130			325	.5		520			1	485	2.1	5.3	
135			330	.5		525			2	475	1.9	5.4	
140			335	.5		530			3	465	2.2	5.3	
145			340	.5		535			4	420	2.0	4.9	
150			345	.6		540			5	410	1.6	4.8	
155			350	.6		545			6	395 400	1.9	4.5	
160			355	1.1		550			7	260	1.9	5.9	
165			360	.7		555			8	250	2.6	6.6	
170			365	.5		560			9	225	1.5	5.5	
175			370	.4		565			10	215	1.7	5.7	
180			375	.4		570			11	205	1.7	5.9	
185	2.8		380	.4		575			12	195	2.3	6.4	
190	2.5		385	.4		580			13				
195	2.2	12	390	.5		585			14				
200	2.1		395	1.5	6	590			15				
205	1.7	11	400	1.6		595			16				
210	1.8		405	1.2		600			17				
215	1.6	10	410	1.5	5	605			18				
220	1.3		415	1.6		610			19				
225	1.5	9	420	2.2	4	615			20				
230	1.3		425	1.1		620			21				
235	1.3		430	1.0		625			22				
240	1.2		435	1.0		630			23				
245	1.2		440	1.0		635			24				
250	2.3	8	445	.9		640			25				
255	2.6		450	1.0		645			26				
260	1.9	7	455	1.1		650			27				
265	1.5		460	1.2		655			28				
270	1.3		465	1.9	3	660			29				
275	1.2		470	2.1		665			30				
280	.9		475	1.9	2	670							
285	.7		480	1.9		675							
290	.8		485	2.0	1	680							

DISTRIBUTION - original - permanent CPS FILE
 copy - Division Corrosion Supervisor
 copy - Region Corrosion Specialist

API WATER ANALYSIS REPORT FORM

Laboratory No. 25910909-1F 682W

Company <u>MERIDIAN OIL</u>		Sample No.	Date Sampled <u>8/31/91</u>	
Field	Legal Description <u>M-15 27-6</u>	County or Parish <u>RIO ARRIBA</u>	State <u>N.M.</u>	
Lease or Unit	Well <u>SJ 28-6 #111</u>	Depth <u>180'</u>	Formation <u>Water Table</u>	Water, B/D
Type of Water (Produced, Supply, etc.)		Sampling Point <u>DEEPWELL GR. BED FOR C.P.</u>	Sampled By <u>D. ASHWORTH</u>	



TECH, Inc.
333 East Main
Farmington
New Mexico
87401
505/327-3311

DISSOLVED SOLIDS

CATIONS	mg/l	me/l
Sodium, Na (calc.)	<u>790</u>	<u>34</u>
Calcium, Ca	<u>310</u>	<u>16</u>
Magnesium, Mg	<u>10</u>	<u>0.9</u>
Barium, Ba		

OTHER PROPERTIES

pH	<u>7.8</u>
Specific Gravity, 60/60 F.	<u>1.0044</u>
Resistivity (ohm-meters) <u>72</u> F.	<u>3.15</u>

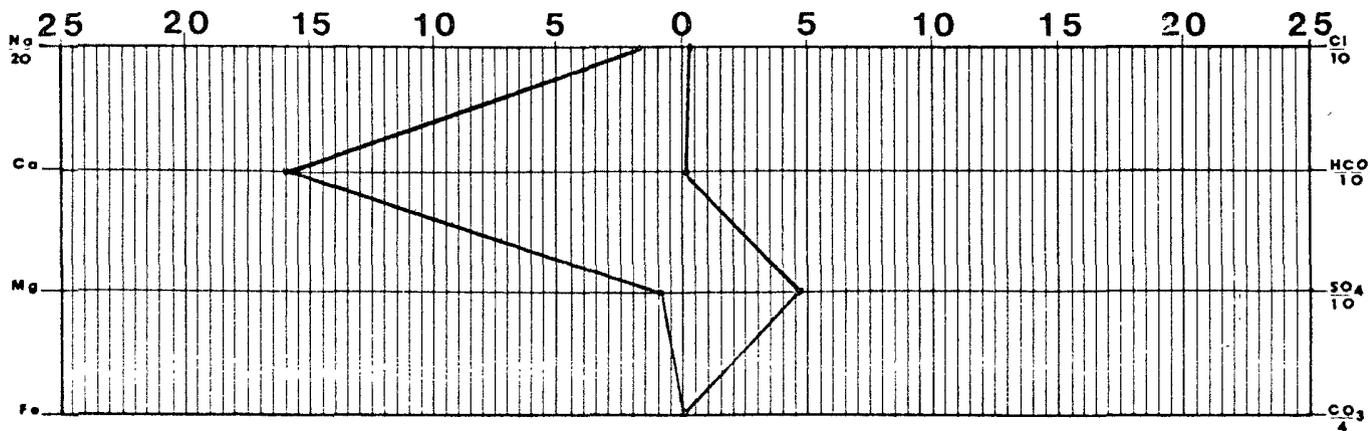
Total Dissolved Solids (calc.) 3500.

ANIONS

Chloride, Cl	<u>110</u>	<u>3.0</u>
Sulfate, So ₄	<u>2200</u>	<u>47</u>
Carbonate, CO ₃	<u>0</u>	<u>0</u>
Bicarbonate, HCO ₃	<u>65</u>	<u>1.1</u>

Iron, Fe (total) _____
Sulfide, as H₂S _____

REMARKS & RECOMMENDATIONS:



Date Received <u>9/9/91</u>	Preserved <u>No</u>	Date Analyzed <u>9/9-10/91</u>	Analyzed By <u>ES</u>
--------------------------------	------------------------	-----------------------------------	--------------------------

#27A 30-039-22226

#84 30-039-07053

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit SE Sec. 15 Twp 27 Rng 6

Name of Well/Wells or Pipeline Serviced SAN JUAN 28-6 UNIT #27A, #84
cps 1609w

Elevation 6462' Completion Date 7/14/81 Total Depth 460' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used
N/A

Depths & thickness of water zones with description of water when possible:
Fresh, Clear, Salty, Sulphur, Etc. 130' SAMPLE WOULD NOT SETTLE OUT

Depths gas encountered: N/A

Type & amount of coke breeze used: 5500 lbs.

Depths anodes placed: 430', 420', 410', 400', 390', 380', 360', 345', 330', 315'

Depths vent pipes placed: 452'

Vent pipe perforations: 340'

Remarks: gb #1

RECEIVED
MAY 31 1991
OIL CON. DIV.
DIST. 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.

El Paso Natural Gas Company
Form 7-238 (Rev. 11-71)

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

Drilling Log (Attach Hereto)

(2" x 60" Durion)

Completion Date 7/14/81

Well Name <u>S.J. 28-6 #27 A</u> <u>S.J. 28-6 #84</u>		Location <u>SE 15-27-6</u>		CPS No. <u>1609 W</u>						
Type & Size Bit Used <u>6 3/4"</u>				Work Order No. <u>57849-21-50-20</u> <u>53572-19-50-20</u>						
Anode Hole Depth <u>460 T.D. 452'</u>	Total Drilling Rig Time	Total Lbs. Coke Used <u>5,500'</u>	Loss of Circulation Material Used		No. Sacks Mud Used					
Anode Depth	# 1 <u>430'</u>	# 2 <u>420'</u>	# 3 <u>410'</u>	# 4 <u>400'</u>	# 5 <u>390'</u>	# 6 <u>380'</u>	# 7 <u>360'</u>	# 8 <u>345'</u>	# 9 <u>330'</u>	# 10 <u>315'</u>
Anode Output (Amps)	# 1 <u>3.2</u>	# 2 <u>2.9</u>	# 3 <u>3.1</u>	# 4 <u>3.4</u>	# 5 <u>3.3</u>	# 6 <u>3.0</u>	# 7 <u>3.3</u>	# 8 <u>2.9</u>	# 9 <u>2.7</u>	# 10 <u>3.3</u>
Anode Depth	# 11	# 12	# 13	# 14	# 15	# 16	# 17	# 18	# 19	# 20
Anode Output (Amps)	# 11	# 12	# 13	# 14	# 15	# 16	# 17	# 18	# 19	# 20
Total Circuit Resistance	Volts <u>12.2</u>		Amps <u>15.2</u>		Ohms <u>.8</u>		No. 8 C.P. Cable Used		No. 2 C.P. Cable Used	

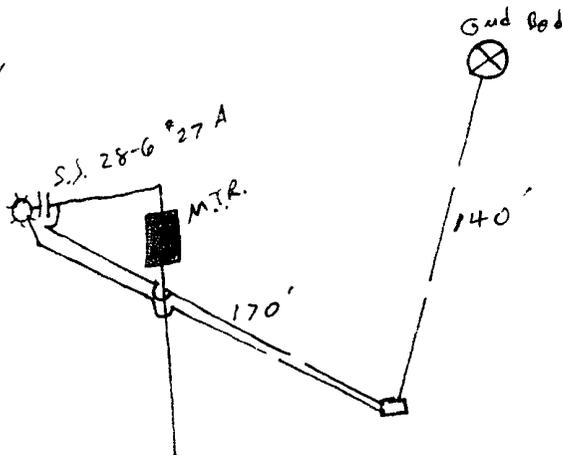
Remarks: STATIC ON S.J. 28-6 #27 A 600' N = .85 V. STATIC ON S.J. 28-6 #84 600' N = .77 V unions checked OK. Driller said WATER AT 130', Approx. 1 gal/min. Drilled To 160', could not drill deeper without INJ. WATER standing in Hole next A.M. AT 130', Hole making Approx. 10 gal/min. AT 300', Drilled To 460', logged 452'. INSTALLED 452' of 1" P.V.C. VENT pipe. Perforated 340'. WATER SAMPLE would NOT settle out COKE Breeze WAS HAULd IN Bulk, EST. 5500 LB. COKE IN Hole
All Construction Completed

All Construction Completed

J.E. Stalk
(Signature)

Ditch + 1 cable = 310'
extra cable = 190'
60 V 30 A Rect.
Stub Pole
Hole Depth - 48'

GROUND BED LAYOUT SKETCH



	Req.	O.T.
Nrs.	8	2

letter 2

DISTRIBUTION

- WHITE - Division Corrosion Office
- YELLOW - Area Corrosion Office
- PINK - Originator File

28-6-27-A CPS # 1609 W SE 15 27-6 57849-21-50-20 28-6-28-4 53572-19-50-20

MW#	gals/mol
16.04	C1 6.4
30.07	C2 10.12
44.10	C3 10.42
58.12	IC4 12.38
58.12	nC4 11.93
72.15	IC5 13.85
72.15	nC5 13.71
86.18	IC6 15.50
86.18	C6 15.57
100.21	IC7 17.25
100.21	C7 17.46
114.23	C8 19.39
28.05	C2 9.64
42.08	C3 9.67

MW#	MISC	gals/mol
32.00	O2	3.37
28.01	CO	4.19
44.01	CO2	6.38
64.06	SO2	5.50
34.08	H2S	5.17
28.01	N2	4.16
2.02	H2	3.38

130 -	310 - .4	Driller said water AT 130'
	1.4 - ⑩	Drilled To 160', could not
40 -	20 - 1.2	Drill deeper with out 100'
	1.2	water standing in Hole next
50 -	30 - 1.2 - ⑨	1. M. AT 130' Took water sample
	1.1	Hole making approx. 1 gal/min
60 -	40 - 1.2	10 gal/min AT 300' Drilled To
	1.2 - ⑧	460', Logged 452' installed
70 - 1.1	50 - 1.1	452' of 1 P.V.C. Vent Pipe
	1.0	for Perforated 340'
80 - .7	60 - 1.2 - ⑦	Water sample would not
	1.2	settle out
90 - .5	70 - .8	
	1.1	
200 - .4	80 - 1.3 - ⑥	12.2 V 15.2 A = 8 Q
	1.3	7/14/81
10 - .4	90 - 1.4 - ⑤	<i>jl</i>
	1.3	
20 - .3	400 - 1.3 - ④	
	1.2	
30 - .4	10 - 1.2 - ③	1-430-2.0-3.2
	1.3	2-420-1.6-2.9
40 - .4	20 - 1.2 - ②	3-410-1.5-3.1
	1.2	4-400-1.7-3.4
50 - .7	30 - 1.4 - ①	5-390-1.7-3.3
	1.3	6-380-1.7-3.0
60 - .4	40 - 1.1	7-360-1.5-3.3
	1.3	8-345-1.6-2.9
70 - .7	50 - 1.3	9-330-1.6-2.7
	4.52 T.P.	10-315-2.2-3.3
80 - .7	60 - Drilled	
90 - .5		
300 - .4		

DAILY DRILLING REPORT

SJ 28-6[#]27A 28-6[#]84

CPS 1609W

CONTRACTOR *Stony Drilling*

RIG NO. 2

REPORT NO.

DATE July 14 19 81

LEASE WELL NO. CONTRACTOR RIG NO. REPORT NO. DATE

MORNING					DAYLIGHT					EVENING				
Driller		Total Men In Crew			Driller		Total Men In Crew			Driller		Total Men In Crew		
FROM	TO	FORMATION	WT-BIT	R.P.M.	FROM	TO	FORMATION	WT-BIT	R.P.M.	FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO.		NO. DC		SIZE		LENG.		BIT NO.		NO. DC		SIZE		LENG.	
SERIAL NO.		STANDS		SINGLES		TYPE		SERIAL NO.		STANDS		SINGLES		TYPE	

MUD RECORD			MUD, ADDITIVES USED AND RECEIVED			MUD RECORD			MUD, ADDITIVES USED AND RECEIVED			MUD RECORD			MUD, ADDITIVES USED AND RECEIVED			
Time	Wt.	Vis.	Time	Wt.	Vis.	Time	Wt.	Vis.	Time	Wt.	Vis.	Time	Wt.	Vis.	Time	Wt.	Vis.	

FROM	TO	TIME BREAKDOWN	FROM	TO	TIME BREAKDOWN	FROM	TO	TIME BREAKDOWN
0	130	Sandy shale	420	460	Sandy shale			
130	160	Sandy shale						
160	190	Shale						
190	220	Sandy						
220	320	Sand						
320	420	Shale						

REMARKS -
 Water 130 1 gallon Min
 300 10 gallon Min
 Drilled 460 TD 4.52

SIGNED: Toolpusher *Steve Stony* Company Supervisor

118 30-039-07018
29 30-039-07001

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator Union Oil Company of California Location: Unit Sec. 22 Twp 27N Rng 6W

Name of Well/Wells or Pipeline Serviced Rincon Unit #118 PC, Rincon Unit #29 MV
and Rincon #181 DK

Elevation 6570' Completion Date 11-29-1965 Total Depth 360' Land Type* F

Casing, Sizes, Types & Depths None

If Casing is cemented, show amounts & types used None

If Cement or Bentonite Plugs have been placed, show depths & amounts used
None

RECEIVED
MAY 09 1990

Depths & thickness of water zones with description of water possible:
Fresh, Clear, Salty, Sulphur, Etc. 85'-95' 10' thick

Depths gas encountered: NA

Type & amount of coke breeze used: Type unknown 5175 lbs

Depths anodes placed: 191' - 283'

Depths vent pipes placed: 201'

Vent pipe perforations: ?

Remarks: El Paso Natural Gas was the operator when this ground be was installed
First ground bed installed.

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.

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

4 3/4" Dr⁹ Bit = 200'

Date 11-29-65

Well Name Kivcon # 118, # 29 & # 181			CPS No. 696W		
Location NE 22-27-6			Work Order No. 53449 184. 52500 -50-20 54272		
Anode Hole Depth 360	Total Drilling Rig Time 23 1/2 Hrs	Type & Size Bit Used 7 7/8" - 886216 = 360		No. Sacks Mud Used 0	
No. Sacks Lost Circulation Mat'l Used 0	Anode Depth		# 7 209	# 8 203	# 9 197
			# 1 283	# 2 277	# 3 271
Total Lbs. Coke Used 5175	Anode Output (Volts)		# 4 265	# 5 259	# 6 215
			# 7 5.4	# 8 5.8	# 9 4.5
			# 1 2.6	# 2 3.6	# 3 3.8
			# 4 4.8	# 5 4.3	# 6 3.8
Total Circuit Resistance	No. Ft. Surface Cable Conduit		840'		
Volts 11.5	Amps 11.5	Ohms 1.0 ~			

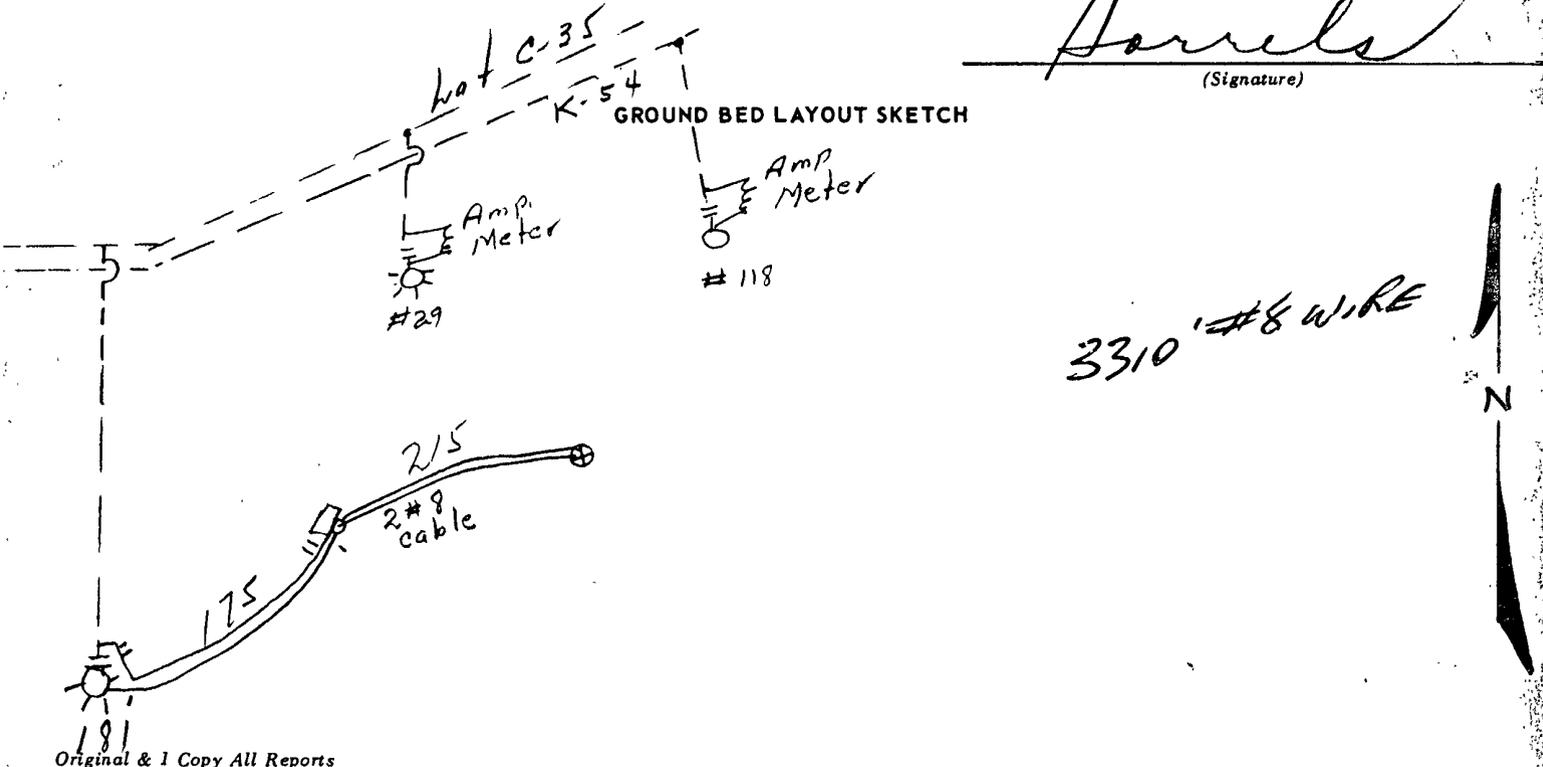
Drilling Log (Attach Hereto)

Remarks: Static # 181 = .64 (Phelps) 600' N # 29 = .74, 600' SE # 118 = .76 (OHS) (OHS)
 3/4" Plastic Hose to # 10 Anode = 201' - 4 lbs Chem to GB.
 Install Goodall Rectifier 45V 30A 2NEG - Ser # 65C6646

All Construction Completed

Signature
(Signature)

GROUND BED LAYOUT SKETCH



Original & 1 Copy All Reports

Wm # 4 200 4 1/4

DRILLING DEPARTMENT

DAILY DRILLING REPORT

LEASE WELL NO. 696-W CONTRACTOR J. E. Wilson RIG NO. D-6 REPORT NO. DATE 11-18-1965

Table with columns for Morning, Daylight, and Evening. Rows include Driller (Denver), Total Men In Crew (2), and formation logs with columns for FROM, TO, FORMATION, WT-BIT, and R.P.M.

Table for equipment details including BIT NO. (886216), SERIAL NO., SIZE, TYPE, MAKE, and TOTAL DEPTH for Morning, Daylight, and Evening sections.

MUD RECORD table with columns for Time, Wt., and Vis. for Morning, Daylight, and Evening sections.

TIME BREAKDOWN table with columns for FROM, TO, and TIME BREAKDOWN for Morning, Daylight, and Evening sections.

REMARKS section containing handwritten notes for dates 11-18-65, 11-19-65, and 11-22-65, detailing drilling activities and rig movements.

SIGNED: Toolpusher

Company Supervisor

Handwritten signature: Barrels

118-30-039-07018

29-30-039-07001

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator Union Oil Company of California Location: Unit Sec. 22 Twp 27N Rng 6W

Name of Well/Wells or Pipeline Serviced Rincon #118 PC Rincon #29 MV and
Rincon #181 DK

Elevation 6570' Completion Date 5/13/1974 Total Depth 580' Land Type*

Casing, Sizes, Types & Depths None

If Casing is cemented, show amounts & types used None

If Cement or Bentonite Plugs have been placed, show depths & amounts used
 None

Depths & thickness of water zones with description of water when possible:
Fresh, Clear, Salty, Sulphur, Etc. 220' Deep Thickness?

Depths gas encountered:

Type & amount of coke breeze used: Type unknown 9800 lbs

Depths anodes placed: 265'-485'

Depths vent pipes placed: ?

Vent pipe perforations: 297'

Remarks: El Paso Natural Gas was the operator at the time this ground bed was installed.
Second ground bed installed on this location.

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.

RECEIVED
MAY 09 1990
OIL CON. DIV.
DIST. 3

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

Logged

Drilling Log (Attach Hereto)

Completion Date 5/23/74

Well Name Rincon #118, #29, #181			Location NE 22-27N-6W				CPS No. 696W			
Type & Size Bit Used 6 3/4"			Total Drilling Rig Time				Work Order No. 184-53449.19-50-20 184-52500.19-50-20 184-54272.19-50-20			
Anode Hole Depth 580		Total Drilling Rig Time		Total Lbs. Coke Used 9,800		Lost Circulation Mat'l Used		No. 8 C.P. Cable Used		
Anode Depth	# 1 485	# 2 475	# 3 355	# 4 345	# 5 330	# 6 305	# 7 295	# 8 285	# 9 275	# 10 265
Anode Output (Amps)	# 1 3.1	# 2 3.6	# 3 3.4	# 4 3.2	# 5 3.0	# 6 3.1	# 7 3.3	# 8 3.5	# 9 3.9	# 10 3.1
Anode Depth	# 11	# 12	# 13	# 14	# 15	# 16	# 17	# 18	# 19	# 20
Anode Output (Amps)	# 11	# 12	# 13	# 14	# 15	# 16	# 17	# 18	# 19	# 20
Total Circuit Resistance Volts 11.2		Amps 12.0		Ohms 0.93		No. 8 C.P. Cable Used 77'		No. 2 C.P. Cable Used		

Remarks: Driller said wet @ 220 start induction @ 260'. water standing @ 290' after 2 hrs. log from 290'. fill with water log from 220' water standing on 5/23/74 @ 265' after 16 hrs pumped to above water zone 2 loads water complete by slurry vent hose perforated 297'

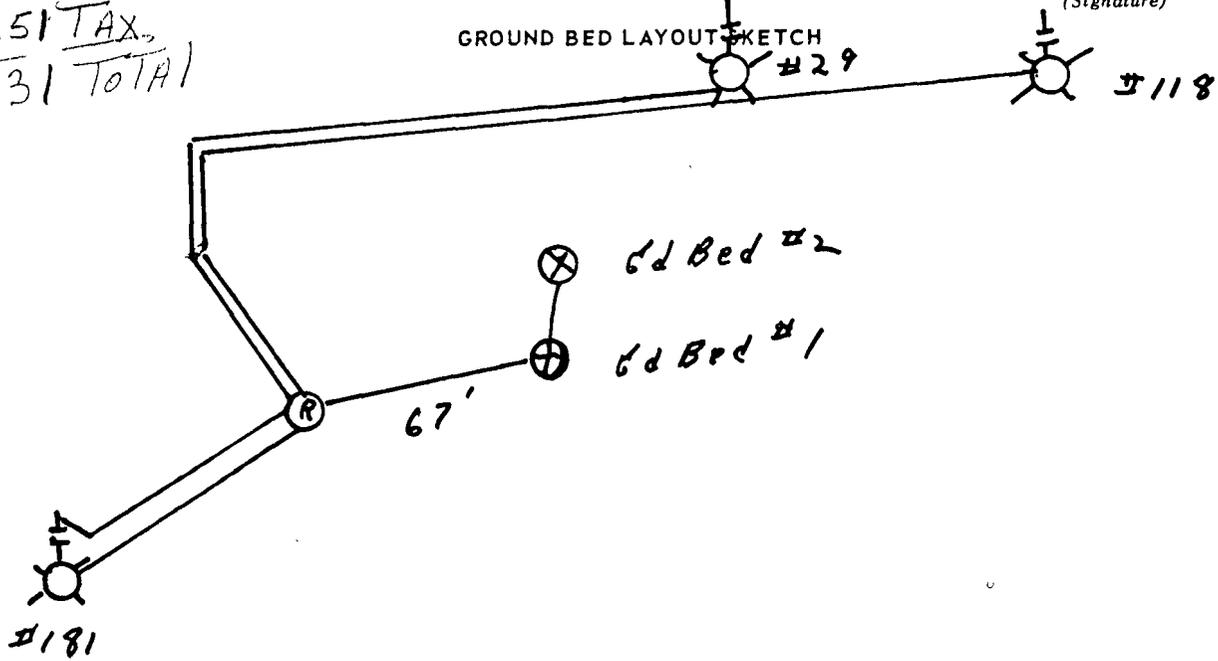
#3,409.00
28.80 Cable
75.00 Extra Depth

All Construction Completed

Paul H. Saville
(Signature)

\$3,512.80
140.51 TAX
\$3,653.31 TOTAL

GROUND BED LAYOUT SKETCH



By: 45V 30A Rect

6.96 W

X ① 7.5 ③ 4.0
② 4.0 ④ F/L 2.0
TOTAL = 17.5 4

MW	gas/mol	
16	C1	6.4
30	C2	9.96
44	C3	10.22
58	C4	12.36
72	NGA	11.93
72	IGA	13.91
86	NGA	13.71
86	IGA	15.50
100	C6	15.37
100	EA	17.2
114	C8	17.46
114	C8	19.38
28	C1	9.64
42	C1	9.57

220	1.2	400	.5	wet @ 220 In Vertical 260'		
	.8		.6	Main Water @ 380'		
30	1.6	10	.5	Water Standing @ 290		
	.5		.6	Water 2 hrs logged		
40	.6	20	1.0	from 290' F. 11 with		
	.6		1.0	Water logged from 220'		
50	.5	30	.5	Water Stand 5-23-74 @		
	.6		.4	265' Water 16 hrs		
60	.8	40	.4	Vent Perforated 297'		
⑩	1.3		.4	Log	Water	Coke
70	2.0	50	.4	1	485	1.5 1.6 3.1
⑨	2.0		.6	2	475	1.4 1.8 3.6
80	1.8	60	.6	3	355	1.5 1.5 3.4
⑧	1.7		.5	4	345	1.5 1.5 3.2
90	1.4 1.6	70	.5	5	330	1.3 1.3 3.0
⑦	1.4 1.6		1.6	6	305	1.4 1.4 3.1
300	1.4 1.5	80	1.7	7	295	1.6 1.4 3.3
⑥	1.3 1.4		1.6	8	285	1.7 1.5 3.5
10	1.2 1.0	90	1.3	9	275	2.0 1.8 3.9
	.9		1.4	10	265	1.3 1.2 3.1
⑤	.9	500	1.3	11.2V 12A .93-Ω		
	.8		1.5			
30	1.3	10	1.6			
	1.3		1.4			
40	1.7	20	1.4			
④	1.5		1.5			
50	1.3	30	1.6			
③	1.5		1.6			
60	.8	40	1.5			
	.5		1.7	543 BOT 5/23/74		
70	.5	50	1.8			
	.4		1.7			
80	.4	60	1.7	546 BOT 5/22/74		
	.6		1.6			
90	.5	70				
	.5					

MW	MISC	gas/mol
44	CO2	6.38
34	H2S	6.17
28	N2	3.26
2	H2	2.26

STORM WATER WELL DRILLING INC.

DIAMOND CORE DRILLING
 DIAMOND DRILLING EQUIPMENT
 GROUTING
 FOUNDATION TESTING
 MINING
 QUARRYING
 SHAFT SINKING
 WATER WELL DRILLING

CONTRACTORS
 14991 W. 44TH AVENUE
 GOLDEN, COLORADO 80401
 PHONE (303) 278-9505

GENERAL OFFICE
 14991 W. 44TH AVENUE
 BAILEY OFFICE
 CALL 1-838-4821

Drill CP 670

Date 5-21-74

Owner _____ CP5-696W

Location _____
 City _____ State _____ County _____

From	To	Formation	Color	Hardness
0	10	TOP SOIL	Brown	SOFT
10	30	CLAY + SAND stone	TAN	SOFT
30	40	" "	" "	SOFT
40	50	SHALE	Red	med
50	60	"	Grey	med
60	80	SAND + CLAY	TAN	SOFT
80	90	SHALE + SAND	Grey	med
90	100	SHALE	Grey	med
100	260	SHALE + SAND	Grey	med
260	380	" + "	Grey + Red	med
380	500	SAND stone	Grey	med
500	540	SHALE + SAND	Grey + Br.	med
540	580	SHALE	BLUE	SOFT
<i>Water injection @ 26</i>				

Total Hours _____
 Equipment Down Time _____
 Hours Drilling _____
 Driller _____
 Helper _____
 Helper _____

C.P.S. Time _____
 S.W.W.D.I. Time _____
 Total Footage _____
 Approval of
 C.P.S. Engineer _____



APPENDIX C

Executed C-138 Solid Waste Acceptance Form

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

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

Form C-138
Revised 08/01/11

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

97057-1125

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address:
Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401
PayKey: RB21200
PM: Dwayne Dixon
AFE: N53447

2. Originating Site:
Lateral K-54

3. Location of Material (Street Address, City, State or ULSTR):
UL C Section 22 T27N R6W; 36.566719, -107.456677

4. Source and Description of Waste:
Source: Remediation activities associated with a natural gas pipeline leak.
Description: Hydrocarbon/Condensate impacted soil associated natural gas pipeline release.
Estimated Volume 20 yd³/ bbls Known Volume (to be entered by the operator at the end of the haul) 1507/200 yd³/ bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

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

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

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

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

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Thomas Long *Thomas Long* 5-11-2021, representative for Enterprise Products Operating authorizes Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

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

5. Transporter: Riley Industrial/OFT and Subcontractors

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: **Envirotech Inc. Soil Remediation Facility * Permit #: NM 01-0011**
Address of Facility: **Hilltop, NM**
Method of Treatment and/or Disposal:
 Evaporation Injection Treating Plant Landfarm Landfill Other

Waste Acceptance Status:
 APPROVED **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: Greg Crabtree TITLE: Enviro Manager DATE: 4/13/21
SIGNATURE: *Greg Crabtree* TELEPHONE NO.: 505-632-0615
Surface Waste Management Facility Authorized Agent



APPENDIX D

Photographic Documentation

SITE PHOTOGRAPHS

Closure Report
Enterprise Field Services, LLC
Lateral K-54 Condensate Drip Riser (4/15/21)
Ensolum Project No. 05A1226145



<p>Photograph 1</p> <p>Photograph Description: View of the release area.</p>	 A photograph showing a deep, narrow excavation pit in the ground. A red bucket is visible on the left side of the pit. In the background, there is a large green cylindrical tank and some metal structures.
<p>Photograph 2</p> <p>Photograph Description: View of in-process excavation activities.</p>	 A photograph showing a long, narrow excavation trench. A large pipe or riser is visible in the center of the trench. The trench is surrounded by dirt and some construction equipment in the background.
<p>Photograph 3</p> <p>Photograph Description: View of in-process excavation activities.</p>	 A photograph showing a wide excavation site. An orange excavator is visible in the background, working on the site. The foreground shows a deep trench with a pipe or riser in the center.

SITE PHOTOGRAPHS

Closure Report
Enterprise Field Services, LLC
Lateral K-54 Condensate Drip Riser (4/15/21)
Ensolum Project No. 05A1226145



<p>Photograph 4</p> <p>Photograph Description: View of in-process excavation activities.</p>	
<p>Photograph 5</p> <p>Photograph Description: View of in-process excavation activities.</p>	
<p>Photograph 6</p> <p>Photograph Description: View of in-process excavation activities.</p>	

SITE PHOTOGRAPHS

Closure Report
Enterprise Field Services, LLC
Lateral K-54 Condensate Drip Riser (4/15/21)
Ensolum Project No. 05A1226145



<p>Photograph 7</p> <p>Photograph Description: View of test pit #1</p>	 A vertical view of a deep test pit. The pit walls are composed of light-colored, sandy soil. A vertical pipe or riser is visible on the left side of the pit, extending from the top edge down into the soil.
<p>Photograph 8</p> <p>Photograph Description: View of test pits #2 and #3.</p>	 A wide view of a construction site showing two adjacent test pits. An orange excavator is positioned on the right side of the pits. The ground is uneven and appears to be recently excavated.
<p>Photograph 9</p> <p>Photograph Description: View of test pit #3.</p>	 A vertical view of a deep test pit, similar to photograph 7. The pit walls are light-colored and sandy. The bottom of the pit is dark and appears to contain some material or debris.

SITE PHOTOGRAPHS

Closure Report
Enterprise Field Services, LLC
Lateral K-54 Condensate Drip Riser (4/15/21)
Ensolum Project No. 05A1226145



Photograph 10

Photograph Description: View of the excavation after initial restoration.



Photograph 11

Photograph Description: View of the excavation after initial restoration.





APPENDIX E

Regulatory Correspondence

From: [Long, Thomas](#)
To: ["Smith, Cory, EMNRD \(Cory.Smith@state.nm.us\)"](#)
Cc: [Stone, Brian](#)
Subject: FW: Lateral K-54 Drip Tank Riser - UL C Section 22 T27N R6W; 36.566719, -107.456677
Date: Friday, June 25, 2021 6:13:00 PM

Cory,

This email is to notify you that Enterprise will be collecting soil samples for laboratory analysis Monday, June 28, 2021 at 10:00 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)
tjlong@eprod.com



From: Long, Thomas
Sent: Monday, June 21, 2021 1:17 PM
To: 'Smith, Cory, EMNRD' <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: RE: Lateral K-54 Drip Tank Riser - UL C Section 22 T27N R6W; 36.566719, -107.456677

Cory,

This email is to notify you that Enterprise will be collecting soil samples for laboratory analysis at the Latera K-54 drip riser excavation tomorrow, June 22, 2021 at 10:00 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)
tjlong@eprod.com



From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Thursday, June 17, 2021 12:22 PM
To: Long, Thomas <tjlong@eprod.com>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: [EXTERNAL] RE: Lateral K-54 Drip Tank Riser - UL C Section 22 T27N R6W; 36.566719, -107.456677

[Use caution with links/attachments]

Tom,

That is fine.. Has Enterprise considered removing the drip pot as they historically have high levels of integrity issues?

Cory Smith • Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1000 Rio Brazos | Aztec, NM 87410
505.334.6178 x115 | Cory.Smith@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>

From: Long, Thomas <tjlong@eprod.com>
Sent: Thursday, June 17, 2021 8:15 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: [EXT] FW: Lateral K-54 Drip Tank Riser - UL C Section 22 T27N R6W; 36.566719, -107.456677

Cory,

This email is an update to the Lateral K-54 remediation. As to date, all sample results are below the NMOCD Tier I remediation standards, except the S-14 and the western wall north of S-14. Due to the 10" Drip vessel on the west wall, Enterprise would like to backfill the excavation up to the west wall with clean fill material. Then potentially install test pits to determine wester extent of contamination. Test pits are illustrated on the site sketch. After test pits are installed, continue remediation in a manner in which we can support the 10" Drip vessel, as that the current excavation is creating a safety concern. I will keep you informed on the progress. 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: Friday, June 11, 2021 7:26 AM
To: 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: RE: Lateral K-54 Drip Tank Riser - UL C Section 22 T27N R6W; 36.566719, -107.456677

Cory,

This email is a notification that Enterprise will be collecting soil samples for laboratory analysis on Monday June 14, 2021 at 10:00 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)
tjlong@eprod.com



From: Long, Thomas
Sent: Friday, June 4, 2021 7:38 AM
To: 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: FW: Lateral K-54 Drip Tank Riser - UL C Section 22 T27N R6W; 36.566719, -107.456677

Cory,

This email is an update on the remediation activities at the Lateral K-54 Drip Tank Riser excavation. Please see the attached site sketch and lab reports. We are making progress. I will keep you informed as to when are next sampling event is scheduled. 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, June 1, 2021 9:45 AM
To: 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: FW: Lateral K-54 Drip Tank Riser - UL C Section 22 T27N R6W; 36.566719, -107.456677

Cory,

The is an email notification that Enterprise will be collecting soil samples for laboratory analysis at the Lateral K-54 Drip Tank Riser excavation tomorrow June 2, 2021 at 10:00 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)
tjlong@eprod.com



From: Long, Thomas
Sent: Tuesday, May 25, 2021 12:43 PM
To: 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: FW: Lateral K-54 Drip Tank Riser - UL C Section 22 T27N R6W; 36.566719, -107.456677

Cory,

Please find the attached lab report for the Lateral K-54 excavation. The bottom is below NMOCD Tier I standards. This email is also a notification that Enterprise will be collecting soil samples for laboratory analysis, tomorrow May 26, 2021 at 10:00 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)
tjlong@eprod.com



From: Long, Thomas
Sent: Thursday, May 20, 2021 2:40 PM
To: 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: FW: Lateral K-54 Drip Tank Riser - UL C Section 22 T27N R6W; 36.566719, -107.456677

Cory,

This email is an update to the remediation activities at the Lateral K-54 Drip Tank Riser. We have been excavating impacted soil for the past week and we think we may have found bottom. This email also serves as a notification that Enterprise will be collecting a bottom sample for laboratory analysis on Monday, May 24, 2021 at 10:00 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)
tjlong@eprod.com



From: Long, Thomas
Sent: Thursday, April 15, 2021 2:20 PM
To: 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: Lateral K-54 Drip Tank Riser - UL C Section 22 T27N R6W; 36.566719, -107.456677

Cory,

This is a notification that Enterprise has a release of condensate from a the Lateral K-54 Drip Tank riser on April 9, 2021. Stained soil of an area of approximately three feet in diameter was observed. No staining liquids. No washes were affected. No residences have been affected. We began remediation yesterday and a sizeable amount of contaminated soil has been discovered making the release reportable today. The release is located UL C Section 22 T27N R6W; 36.566719, -107.456677. I will keep you informed as to when we will collect soil samples for analysis. 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



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

Table 1 – Soil Analytical Summary



TABLE 1
Lateral K-54 Condensate Tank Riser (4/15/21)
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Type	Sample Depth	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX ¹	TPH GRO	TPH DRO	TPH MRO	Total Combined TPH (GRO/DRO/MRO) ¹	Chloride	Sulfate
		C- Composite G - Grab	(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Division Closure Criteria (Tier I)				10	NE	NE	NE	50				100	600	NE
Composite Soil Samples Removed by Excavation and Transported to the Landfarm for Diposal/Remediation														
S-14	6.14.21	C	0 to 16	0.10	1.7	0.61	6.5	8.9	180	<8.4	<42	180	<60	NA
TP-1a	6.23.21	C	0 to 8	<0.082	<0.16	0.33	3.5	3.8	83	21	<48	104	<60	NA
Composite Soil Samples Collected from Stockpiled Soils														
SP-1	6.17.21	C	Stockpile	<0.018	<0.037	<0.037	<0.073	ND	<3.7	<9.9	<49	ND	<7.5	24
SP-2	6.17.21	C	Stockpile	<0.029	<0.057	<0.057	<0.11	ND	<5.7	<9.8	<49	ND	<7.5	21
SP-3	6.17.21	C	Stockpile	<0.017	<0.033	<0.033	<0.066	ND	<3.3	<9.2	<46	ND	<7.5	28
Excavation Composite Soil Samples														
S-1	5.24.21	C	14	<0.017	<0.034	<0.034	<0.069	ND	<3.4	<9.0	<45	ND	<60	NA
S-2	5.26.21	C	14	<0.018	0.17	0.052	0.61	0.83	6.0	14	<50	20	95	NA
S-3	5.26.21	C	13	0.021	0.21	0.058	0.68	0.97	7.1	16	<43	23	90	NA
S-4	6.02.21	C	10	<0.017	<0.034	<0.034	<0.068	ND	<3.4	<8.8	<44	ND	83	NA
S-5	6.02.21	C	8	<0.018	<0.036	<0.036	<0.072	ND	<3.6	<9.0	<45	ND	65	NA
S-6	6.02.21	C	0 to 8	<0.085	<0.17	<0.17	<0.34	ND	<17	33	<47	33	140	NA
S-7	6.14.21	C	12 to 16	<0.018	0.11	0.14	1.8	2.1	17	<8.0	<40	17	120	NA
S-8	6.14.21	C	0 to 11	<0.014	<0.028	<0.028	<0.056	ND	<2.8	<9.7	<48	ND	<60	NA
S-9	6.14.21	C	0 to 12	<0.015	<0.030	<0.030	<0.060	ND	<3.0	<10	<50	ND	120	NA
S-10	6.14.21	C	0 to 12	<0.016	<0.032	<0.032	<0.063	ND	<3.2	22	<48	22	180	NA
S-11	6.14.21	C	0 to 12	<0.015	<0.031	<0.031	<0.061	ND	<3.1	<8.6	<43	ND	<60	NA
S-12	6.14.21	C	0 to 12	<0.018	<0.036	<0.036	<0.072	ND	<3.6	<9.4	<47	ND	100	NA
S-13	6.14.21	C	0 to 16	<0.073	<0.15	<0.15	<0.29	ND	<15	<8.6	<43	ND	<60	NA
S-15	6.22.21	C	0 to 15	<0.018	<0.036	<0.036	0.36	0.36	48	24	<44	72	<61	NA
S-16	6.22.21	C	0 to 9	<0.080	<0.16	<0.16	<0.32	ND	16	9.6	<47	26	<60	NA
S-17	6.22.21	C	12	<0.016	<0.032	<0.032	<0.063	ND	<3.2	<9.3	<46	ND	140	NA
S-18	6.22.21	C	12	<0.019	<0.037	<0.037	<0.074	ND	<3.7	<8.8	<44	ND	140	NA
S-19	6.28.21	C	0 to 9	<0.023	<0.045	<0.045	<0.091	ND	<4.5	<8.9	<45	ND	160	NA
S-20	6.28.21	C	0 to 16	<0.019	<0.037	<0.037	<0.075	ND	<3.7	<9.7	<48	ND	160	NA



TABLE 1
Lateral K-54 Condensate Tank Riser (4/15/21)
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Type	Sample Depth	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX ¹	TPH GRO	TPH DRO	TPH MRO	Total Combined TPH (GRO/DRO/MRO) ¹	Chloride	Sulfate	
		C- Composite G - Grab	(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Division Closure Criteria (Tier I)				10	NE	NE	NE	50				100	600	NE	
Test Pit Soil Samples															
TP-1b	6.23.21	C	9	<0.084	<0.17	<0.17	<0.34	ND	<17	11	<50	11	<60	NA	
TP-2a	6.23.21	C	0 to 14	<0.018	<0.037	<0.037	<0.074	ND	<3.7	<9.6	<48	ND	81	NA	
TP-2b	6.23.21	C	15	<0.020	<0.040	<0.040	<0.080	ND	<4.0	<9.8	<49	ND	<60	NA	
TP-3a	6.23.21	C	0 to 15	<0.017	<0.033	<0.033	<0.067	ND	<3.3	<9.9	<50	ND	89	NA	
TP-3b	6.23.21	C	16	<0.020	<0.039	<0.039	<0.079	ND	<3.9	<9.8	<49	ND	64	NA	

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

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

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



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

May 28, 2021

Kyle Summers

ENSOLUM

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX

RE: Lateral K-54

OrderNo.: 2105A39

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/25/2021 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,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order **2105A39**

Date Reported: **5/28/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-1

Project: Lateral K-54

Collection Date: 5/24/2021 10:00:00 AM

Lab ID: 2105A39-001

Matrix: MEOH (SOIL)

Received Date: 5/25/2021 7:22:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	5/25/2021 8:38:15 AM	60237
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	5/25/2021 9:53:47 AM	60236
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	5/25/2021 9:53:47 AM	60236
Surr: DNOP	97.6	70-130		%Rec	1	5/25/2021 9:53:47 AM	60236
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	5/25/2021 10:01:22 AM	60213
Surr: BFB	91.4	70-130		%Rec	1	5/25/2021 10:01:22 AM	60213
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	5/25/2021 10:01:22 AM	60213
Toluene	ND	0.034		mg/Kg	1	5/25/2021 10:01:22 AM	60213
Ethylbenzene	ND	0.034		mg/Kg	1	5/25/2021 10:01:22 AM	60213
Xylenes, Total	ND	0.069		mg/Kg	1	5/25/2021 10:01:22 AM	60213
Surr: 4-Bromofluorobenzene	99.5	70-130		%Rec	1	5/25/2021 10:01:22 AM	60213

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2105A39

28-May-21

Client: ENSOLUM

Project: Lateral K-54

Sample ID: MB-60237	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 60237	RunNo: 77623								
Prep Date: 5/25/2021	Analysis Date: 5/25/2021	SeqNo: 2756623	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-60237	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 60237	RunNo: 77623								
Prep Date: 5/25/2021	Analysis Date: 5/25/2021	SeqNo: 2756624	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.6	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2105A39

28-May-21

Client: ENSOLUM

Project: Lateral K-54

Sample ID: MB-60236	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 60236	RunNo: 77627								
Prep Date: 5/25/2021	Analysis Date: 5/25/2021	SeqNo: 2755640	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	9.1		10.00		91.4	70	130			

Sample ID: LCS-60236	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 60236	RunNo: 77627								
Prep Date: 5/25/2021	Analysis Date: 5/25/2021	SeqNo: 2755641	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	81.3	68.9	141			
Surr: DNOP	4.3		5.000		85.4	70	130			

Sample ID: 2105A39-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: S-1	Batch ID: 60236	RunNo: 77628								
Prep Date: 5/25/2021	Analysis Date: 5/25/2021	SeqNo: 2755798	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.9	49.46	5.829	77.6	15	184			
Surr: DNOP	4.3		4.946		87.4	70	130			

Sample ID: 2105A39-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: S-1	Batch ID: 60236	RunNo: 77628								
Prep Date: 5/25/2021	Analysis Date: 5/25/2021	SeqNo: 2755799	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.4	46.95	5.829	83.1	15	184	1.43	23.9	
Surr: DNOP	4.3		4.695		90.7	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2105A39

28-May-21

Client: ENSOLUM

Project: Lateral K-54

Sample ID: mb-60213	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 60213	RunNo: 77631								
Prep Date: 5/24/2021	Analysis Date: 5/25/2021	SeqNo: 2756716	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	900		1000		90.4	70	130			

Sample ID: ics-60213	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 60213	RunNo: 77631								
Prep Date: 5/24/2021	Analysis Date: 5/25/2021	SeqNo: 2756717	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.5	78.6	131			
Surr: BFB	1000		1000		102	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2105A39

28-May-21

Client: ENSOLUM

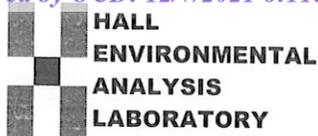
Project: Lateral K-54

Sample ID: mb-60213	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 60213	RunNo: 77631								
Prep Date: 5/24/2021	Analysis Date: 5/25/2021	SeqNo: 2756760	Units: mg/Kg							
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		102	70	130			

Sample ID: LCS-60213	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 60213	RunNo: 77631								
Prep Date: 5/24/2021	Analysis Date: 5/25/2021	SeqNo: 2756761	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.2	80	120			
Toluene	0.98	0.050	1.000	0	98.5	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.8	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.9	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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 Number: **2105A39** RcptNo: **1**

Received By: **Juan Rojas** 5/25/2021 7:22:00 AM *Juan Rojas*
 Completed By: **Cheyenne Cason** 5/25/2021 7:35:19 AM *Cason*
 Reviewed By: *NB 5/25/21*

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples? Yes No NA
 4. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
 5. Sample(s) in proper container(s)? Yes No
 6. Sufficient sample volume for indicated test(s)? Yes No
 7. Are samples (except VOA and ONG) properly preserved? Yes No
 8. Was preservative added to bottles? Yes No NA
 9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes No NA
 10. Were any sample containers received broken? Yes No
 11. Does paperwork match bottle labels? Yes No
 (Note discrepancies on chain of custody)
 12. Are matrices correctly identified on Chain of Custody? Yes No
 13. Is it clear what analyses were requested? Yes No
 14. Were all holding times able to be met? Yes No
 (If no, notify customer for authorization.)

of preserved bottles checked for pH:
 (<2 or >12 unless noted)
 Adjusted?
 Checked by: *JR 5/25/21*

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	Seal Intact	Seal No	Seal Date	Signed By
1	0.6	Good				



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

May 28, 2021

Kyle Summers

ENSOLUM

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX

RE: Lateral K 54

OrderNo.: 2105B39

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 2 sample(s) on 5/27/2021 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,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order **2105B39**

Date Reported: **5/28/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-2

Project: Lateral K 54

Collection Date: 5/26/2021 11:00:00 AM

Lab ID: 2105B39-001

Matrix: MEOH (SOIL)

Received Date: 5/27/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	95	60		mg/Kg	20	5/27/2021 9:18:36 AM	60295
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	14	9.9		mg/Kg	1	5/27/2021 10:07:28 AM	60294
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/27/2021 10:07:28 AM	60294
Surr: DNOP	108	70-130		%Rec	1	5/27/2021 10:07:28 AM	60294
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	6.0	3.6		mg/Kg	1	5/27/2021 9:13:31 AM	A77699
Surr: BFB	122	70-130		%Rec	1	5/27/2021 9:13:31 AM	A77699
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	5/27/2021 9:13:31 AM	C77699
Toluene	0.17	0.036		mg/Kg	1	5/27/2021 9:13:31 AM	C77699
Ethylbenzene	0.052	0.036		mg/Kg	1	5/27/2021 9:13:31 AM	C77699
Xylenes, Total	0.61	0.072		mg/Kg	1	5/27/2021 9:13:31 AM	C77699
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	5/27/2021 9:13:31 AM	C77699

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

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

Analytical Report

Lab Order **2105B39**

Date Reported: **5/28/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-3

Project: Lateral K 54

Collection Date: 5/26/2021 11:05:00 AM

Lab ID: 2105B39-002

Matrix: MEOH (SOIL)

Received Date: 5/27/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	90	60		mg/Kg	20	5/27/2021 9:31:01 AM	60295
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	16	8.7		mg/Kg	1	5/27/2021 10:17:02 AM	60294
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	5/27/2021 10:17:02 AM	60294
Surr: DNOP	121	70-130		%Rec	1	5/27/2021 10:17:02 AM	60294
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	7.1	3.8		mg/Kg	1	5/27/2021 9:37:04 AM	A77699
Surr: BFB	124	70-130		%Rec	1	5/27/2021 9:37:04 AM	A77699
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.021	0.019		mg/Kg	1	5/27/2021 9:37:04 AM	C77699
Toluene	0.21	0.038		mg/Kg	1	5/27/2021 9:37:04 AM	C77699
Ethylbenzene	0.058	0.038		mg/Kg	1	5/27/2021 9:37:04 AM	C77699
Xylenes, Total	0.68	0.076		mg/Kg	1	5/27/2021 9:37:04 AM	C77699
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	5/27/2021 9:37:04 AM	C77699

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2105B39

28-May-21

Client: ENSOLUM

Project: Lateral K 54

Sample ID: MB-60295	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 60295	RunNo: 77692								
Prep Date: 5/27/2021	Analysis Date: 5/27/2021	SeqNo: 2758472	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-60295	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 60295	RunNo: 77692								
Prep Date: 5/27/2021	Analysis Date: 5/27/2021	SeqNo: 2758473	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	90.9	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

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

WO#: 2105B39

28-May-21

Client: ENSOLUM

Project: Lateral K 54

Sample ID: LCS-60294	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 60294		RunNo: 77689							
Prep Date: 5/27/2021	Analysis Date: 5/27/2021		SeqNo: 2757992		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.3	68.9	141			
Surr: DNOP	5.0		5.000		100	70	130			

Sample ID: MB-60294	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 60294		RunNo: 77689							
Prep Date: 5/27/2021	Analysis Date: 5/27/2021		SeqNo: 2757993		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	11		10.00		108	70	130			

Sample ID: 2105B39-001AMS	SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: S-2	Batch ID: 60294		RunNo: 77689							
Prep Date: 5/27/2021	Analysis Date: 5/27/2021		SeqNo: 2758069		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	8.7	43.48	14.12	94.4	15	184			
Surr: DNOP	3.9		4.348		90.1	70	130			

Sample ID: 2105B39-001AMSD	SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: S-2	Batch ID: 60294		RunNo: 77689							
Prep Date: 5/27/2021	Analysis Date: 5/27/2021		SeqNo: 2758070		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	8.2	41.22	14.12	90.3	15	184	7.17	23.9	
Surr: DNOP	4.0		4.122		96.4	70	130	0	0	

Sample ID: MB-60255	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 60255		RunNo: 77689							
Prep Date: 5/25/2021	Analysis Date: 5/27/2021		SeqNo: 2758380		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	12		10.00		115	70	130			

Sample ID: LCS-60255	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 60255		RunNo: 77689							
Prep Date: 5/25/2021	Analysis Date: 5/27/2021		SeqNo: 2758382		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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 Quantitative Limit
S % Recovery outside of range due to dilution or matrix

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2105B39

28-May-21

Client: ENSOLUM

Project: Lateral K 54

Sample ID: LCS-60255	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 60255	RunNo: 77689								
Prep Date: 5/25/2021	Analysis Date: 5/27/2021	SeqNo: 2758382	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.2		5.000		105	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2105B39

28-May-21

Client: ENSOLUM
Project: Lateral K 54

Sample ID: mb	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: A77699	RunNo: 77699								
Prep Date:	Analysis Date: 5/27/2021	SeqNo: 2758739			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	1000		1000		102	70	130			

Sample ID: 2.5ug gro lcs	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: A77699	RunNo: 77699								
Prep Date:	Analysis Date: 5/27/2021	SeqNo: 2758740			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	78.6	131			
Surr: BFB	1100		1000		112	70	130			

Sample ID: 2105b39-001ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: S-2	Batch ID: A77699	RunNo: 77699								
Prep Date:	Analysis Date: 5/27/2021	SeqNo: 2758748			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	3.6	18.12	6.007	106	61.3	114			
Surr: BFB	1000		724.6		138	70	130			S

Sample ID: 2105b39-001amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: S-2	Batch ID: A77699	RunNo: 77699								
Prep Date:	Analysis Date: 5/27/2021	SeqNo: 2758749			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	3.6	18.12	6.007	100	61.3	114	4.03	20	
Surr: BFB	990		724.6		136	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

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

WO#: 2105B39

28-May-21

Client: ENSOLUM

Project: Lateral K 54

Sample ID: mb	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: C77699	RunNo: 77699								
Prep Date:	Analysis Date: 5/27/2021	SeqNo: 2758784			Units: mg/Kg					
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		103	70	130			

Sample ID: 100ng btex lcs	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: C77699	RunNo: 77699								
Prep Date:	Analysis Date: 5/27/2021	SeqNo: 2758785			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	1.000	0	99.5	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.0	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	70	130			

Sample ID: 2105b39-002ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: S-3	Batch ID: C77699	RunNo: 77699								
Prep Date:	Analysis Date: 5/27/2021	SeqNo: 2758794			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.78	0.019	0.7645	0.02057	99.7	76.3	120			
Toluene	1.0	0.038	0.7645	0.2085	105	78.5	120			
Ethylbenzene	0.85	0.038	0.7645	0.05787	103	78.1	124			
Xylenes, Total	3.1	0.076	2.294	0.6814	105	79.3	125			
Surr: 4-Bromofluorobenzene	0.85		0.7645		111	70	130			

Sample ID: 2105b39-002amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: S-3	Batch ID: C77699	RunNo: 77699								
Prep Date:	Analysis Date: 5/27/2021	SeqNo: 2758795			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.78	0.019	0.7645	0.02057	98.8	76.3	120	0.853	20	
Toluene	1.0	0.038	0.7645	0.2085	104	78.5	120	1.36	20	
Ethylbenzene	0.84	0.038	0.7645	0.05787	103	78.1	124	0.498	20	
Xylenes, Total	3.1	0.076	2.294	0.6814	104	79.3	125	0.519	20	
Surr: 4-Bromofluorobenzene	0.86		0.7645		112	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 Quantitative Limit
S % Recovery outside of range due to dilution or matrix

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 7 of 7



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 Number: 2105B39 RcptNo: 1

Received By: Juan Rojas 5/27/2021 7:10:00 AM
Completed By: Desiree Dominguez 5/27/2021 7:41:05 AM
Reviewed By: JR 5/27/21

Chain of Custody

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

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [] NA []
4. Were all samples received at a temperature of >0° C to 6.0° C Yes [checked] No [] NA []
5. Sample(s) in proper container(s)? Yes [checked] No []
6. Sufficient sample volume for indicated test(s)? Yes [checked] No []
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No []
8. Was preservative added to bottles? Yes [] No [checked] NA []
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [] No [] NA [checked]
10. Were any sample containers received broken? Yes [] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No []
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No []
13. Is it clear what analyses were requested? Yes [checked] No []
14. Were all holding times able to be met? Yes [checked] No []

of preserved bottles checked for pH:
(<2 or >12 unless noted)
Adjusted?
Checked by: KPG 5/27/21

Special Handling (if applicable)

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

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

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 0.4, Good, Yes, , ,



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

June 10, 2021

Kyle Summers

ENSOLUM

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX

RE: Lateral K 54

OrderNo.: 2106165

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 3 sample(s) on 6/3/2021 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,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order **2106165**

Date Reported: **6/10/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-4

Project: Lateral K 54

Collection Date: 6/2/2021 10:00:00 AM

Lab ID: 2106165-001

Matrix: MEOH (SOIL)

Received Date: 6/3/2021 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	83	60		mg/Kg	20	6/3/2021 9:20:51 AM	60416
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	6/4/2021 11:36:24 AM	60414
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	6/4/2021 11:36:24 AM	60414
Surr: DNOP	84.2	70-130		%Rec	1	6/4/2021 11:36:24 AM	60414
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	6/3/2021 11:09:08 AM	60379
Surr: BFB	105	70-130		%Rec	1	6/3/2021 11:09:08 AM	60379
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	6/3/2021 11:09:08 AM	60379
Toluene	ND	0.034		mg/Kg	1	6/3/2021 11:09:08 AM	60379
Ethylbenzene	ND	0.034		mg/Kg	1	6/3/2021 11:09:08 AM	60379
Xylenes, Total	ND	0.068		mg/Kg	1	6/3/2021 11:09:08 AM	60379
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	6/3/2021 11:09:08 AM	60379

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

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

Analytical Report

Lab Order **2106165**

Date Reported: **6/10/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-5

Project: Lateral K 54

Collection Date: 6/2/2021 10:05:00 AM

Lab ID: 2106165-002

Matrix: MEOH (SOIL)

Received Date: 6/3/2021 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	65	60		mg/Kg	20	6/3/2021 9:33:16 AM	60416
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	6/4/2021 11:49:13 AM	60414
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	6/4/2021 11:49:13 AM	60414
Surr: DNOP	81.6	70-130		%Rec	1	6/4/2021 11:49:13 AM	60414
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	6/3/2021 11:32:37 AM	60379
Surr: BFB	103	70-130		%Rec	1	6/3/2021 11:32:37 AM	60379
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	6/3/2021 11:32:37 AM	60379
Toluene	ND	0.036		mg/Kg	1	6/3/2021 11:32:37 AM	60379
Ethylbenzene	ND	0.036		mg/Kg	1	6/3/2021 11:32:37 AM	60379
Xylenes, Total	ND	0.072		mg/Kg	1	6/3/2021 11:32:37 AM	60379
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	6/3/2021 11:32:37 AM	60379

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

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

Analytical Report

Lab Order **2106165**

Date Reported: **6/10/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-6

Project: Lateral K 54

Collection Date: 6/2/2021 10:10:00 AM

Lab ID: 2106165-003

Matrix: MEOH (SOIL)

Received Date: 6/3/2021 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	140	60		mg/Kg	20	6/3/2021 9:45:40 AM	60416
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	33	9.4		mg/Kg	1	6/4/2021 12:02:30 PM	60414
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/4/2021 12:02:30 PM	60414
Surr: DNOP	83.6	70-130		%Rec	1	6/4/2021 12:02:30 PM	60414
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	6/3/2021 11:56:10 AM	60379
Surr: BFB	112	70-130		%Rec	5	6/3/2021 11:56:10 AM	60379
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.085		mg/Kg	5	6/3/2021 11:56:10 AM	60379
Toluene	ND	0.17		mg/Kg	5	6/3/2021 11:56:10 AM	60379
Ethylbenzene	ND	0.17		mg/Kg	5	6/3/2021 11:56:10 AM	60379
Xylenes, Total	ND	0.34		mg/Kg	5	6/3/2021 11:56:10 AM	60379
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	5	6/3/2021 11:56:10 AM	60379

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106165

10-Jun-21

Client: ENSOLUM
Project: Lateral K 54

Sample ID: MB-60416	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 60416	RunNo: 78817								
Prep Date: 6/3/2021	Analysis Date: 6/3/2021	SeqNo: 2765651	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-60416	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 60416	RunNo: 78817								
Prep Date: 6/3/2021	Analysis Date: 6/3/2021	SeqNo: 2765652	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.9	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106165

10-Jun-21

Client: ENSOLUM
Project: Lateral K 54

Sample ID: MB-60414	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 60414	RunNo: 78853								
Prep Date: 6/3/2021	Analysis Date: 6/4/2021	SeqNo: 2765917			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	8.5		10.00		85.0	70	130			

Sample ID: LCS-60414	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 60414	RunNo: 78853								
Prep Date: 6/3/2021	Analysis Date: 6/4/2021	SeqNo: 2765918			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	35	10	50.00	0	69.5	68.9	141			
Surr: DNOP	3.8		5.000		75.5	70	130			

Sample ID: 2106165-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: S-4	Batch ID: 60414	RunNo: 78853								
Prep Date: 6/3/2021	Analysis Date: 6/4/2021	SeqNo: 2765966			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	9.4	47.21	6.709	69.3	15	184			
Surr: DNOP	3.8		4.721		79.7	70	130			

Sample ID: 2106165-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: S-4	Batch ID: 60414	RunNo: 78853								
Prep Date: 6/3/2021	Analysis Date: 6/4/2021	SeqNo: 2765967			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	10	49.85	6.709	66.5	15	184	1.02	23.9	
Surr: DNOP	4.1		4.985		81.3	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106165

10-Jun-21

Client: ENSOLUM

Project: Lateral K 54

Sample ID: mb-60379	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 60379	RunNo: 78826								
Prep Date: 6/1/2021	Analysis Date: 6/3/2021	SeqNo: 2765214	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	1000		1000		104	70	130			

Sample ID: ics-60379	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 60379	RunNo: 78826								
Prep Date: 6/1/2021	Analysis Date: 6/3/2021	SeqNo: 2765215	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	78.6	131			
Surr: BFB	1200		1000		116	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106165

10-Jun-21

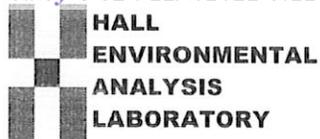
Client: ENSOLUM
Project: Lateral K 54

Sample ID: mb-60379	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 60379	RunNo: 78826								
Prep Date: 6/1/2021	Analysis Date: 6/3/2021	SeqNo: 2765239	Units: mg/Kg							
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		102	70	130			

Sample ID: LCS-60379	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 60379	RunNo: 78826								
Prep Date: 6/1/2021	Analysis Date: 6/3/2021	SeqNo: 2765240	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	97.5	80	120			
Toluene	0.99	0.050	1.000	0	99.3	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.5	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.4	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		105	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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 Number: 2106165 RcptNo: 1

Received By: Juan Rojas 6/3/2021 7:55:00 AM

Juan Rojas (handwritten signature)

Completed By: Sean Livingston 6/3/2021 8:06:22 AM

Sean Livingston (handwritten signature)

Reviewed By: JR 6/3/21

Chain of Custody

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

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [] NA []
4. Were all samples received at a temperature of >0° C to 6.0°C Yes [checked] No [] NA []
5. Sample(s) in proper container(s)? Yes [checked] No []
6. Sufficient sample volume for indicated test(s)? Yes [checked] No []
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No []
8. Was preservative added to bottles? Yes [] No [checked] NA []
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [] No [] NA [checked]
10. Were any sample containers received broken? Yes [] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No []
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No []
13. Is it clear what analyses were requested? Yes [checked] No []
14. Were all holding times able to be met? Yes [checked] No []

of preserved bottles checked for pH: (≤2 or >12 unless noted) Adjusted? Checked by: KRC 6/05/21

Special Handling (if applicable)

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

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

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 2.0, Good, [], [], []



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

June 21, 2021

Kyle Summers

Ensolum

606 S Rio Grande Ste A

Aztec, NM 87410

TEL: (903) 821-5603

FAX

RE: Lateral K 54

OrderNo.: 2106764

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 8 sample(s) on 6/15/2021 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,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order **2106764**

Date Reported: **6/21/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Ensolum

Client Sample ID: S-7

Project: Lateral K 54

Collection Date: 6/14/2021 11:00:00 AM

Lab ID: 2106764-001

Matrix: MEOH (SOIL) **Received Date:** 6/15/2021 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	120	59		mg/Kg	20	6/15/2021 9:31:03 AM	60634
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	8.0		mg/Kg	1	6/15/2021 11:53:25 AM	60633
Motor Oil Range Organics (MRO)	ND	40		mg/Kg	1	6/15/2021 11:53:25 AM	60633
Surr: DNOP	79.5	70-130		%Rec	1	6/15/2021 11:53:25 AM	60633
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	17	3.6		mg/Kg	1	6/15/2021 9:11:13 AM	60623
Surr: BFB	194	70-130	S	%Rec	1	6/15/2021 9:11:13 AM	60623
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	6/15/2021 9:11:13 AM	60623
Toluene	0.11	0.036		mg/Kg	1	6/15/2021 9:11:13 AM	60623
Ethylbenzene	0.14	0.036		mg/Kg	1	6/15/2021 9:11:13 AM	60623
Xylenes, Total	1.8	0.072		mg/Kg	1	6/15/2021 9:11:13 AM	60623
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	6/15/2021 9:11:13 AM	60623

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

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

Analytical Report

Lab Order **2106764**

Date Reported: **6/21/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Ensolum

Client Sample ID: S-8

Project: Lateral K 54

Collection Date: 6/14/2021 11:05:00 AM

Lab ID: 2106764-002

Matrix: MEOH (SOIL)

Received Date: 6/15/2021 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	6/15/2021 9:43:27 AM	60634
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/15/2021 10:29:26 AM	60633
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/15/2021 10:29:26 AM	60633
Surr: DNOP	86.5	70-130		%Rec	1	6/15/2021 10:29:26 AM	60633
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	2.8		mg/Kg	1	6/15/2021 9:34:42 AM	60623
Surr: BFB	105	70-130		%Rec	1	6/15/2021 9:34:42 AM	60623
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.014		mg/Kg	1	6/15/2021 9:34:42 AM	60623
Toluene	ND	0.028		mg/Kg	1	6/15/2021 9:34:42 AM	60623
Ethylbenzene	ND	0.028		mg/Kg	1	6/15/2021 9:34:42 AM	60623
Xylenes, Total	ND	0.056		mg/Kg	1	6/15/2021 9:34:42 AM	60623
Surr: 4-Bromofluorobenzene	98.7	70-130		%Rec	1	6/15/2021 9:34:42 AM	60623

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

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

Analytical Report

Lab Order **2106764**

Date Reported: **6/21/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Ensolum

Client Sample ID: S-9

Project: Lateral K 54

Collection Date: 6/14/2021 11:10:00 AM

Lab ID: 2106764-003

Matrix: MEOH (SOIL)

Received Date: 6/15/2021 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	120	60		mg/Kg	20	6/15/2021 9:55:51 AM	60634
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/15/2021 10:41:26 AM	60633
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/15/2021 10:41:26 AM	60633
Surr: DNOP	84.8	70-130		%Rec	1	6/15/2021 10:41:26 AM	60633
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.0		mg/Kg	1	6/15/2021 9:58:12 AM	60623
Surr: BFB	106	70-130		%Rec	1	6/15/2021 9:58:12 AM	60623
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.015		mg/Kg	1	6/15/2021 9:58:12 AM	60623
Toluene	ND	0.030		mg/Kg	1	6/15/2021 9:58:12 AM	60623
Ethylbenzene	ND	0.030		mg/Kg	1	6/15/2021 9:58:12 AM	60623
Xylenes, Total	ND	0.060		mg/Kg	1	6/15/2021 9:58:12 AM	60623
Surr: 4-Bromofluorobenzene	96.0	70-130		%Rec	1	6/15/2021 9:58:12 AM	60623

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

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

Analytical Report

Lab Order **2106764**

Date Reported: **6/21/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Ensolum

Client Sample ID: S-10

Project: Lateral K 54

Collection Date: 6/14/2021 11:15:00 AM

Lab ID: 2106764-004

Matrix: MEOH (SOIL)

Received Date: 6/15/2021 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	180	60		mg/Kg	20	6/15/2021 10:08:16 AM	60634
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	22	9.6		mg/Kg	1	6/15/2021 10:53:25 AM	60633
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/15/2021 10:53:25 AM	60633
Surr: DNOP	82.7	70-130		%Rec	1	6/15/2021 10:53:25 AM	60633
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	6/15/2021 10:21:40 AM	60623
Surr: BFB	101	70-130		%Rec	1	6/15/2021 10:21:40 AM	60623
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.016		mg/Kg	1	6/15/2021 10:21:40 AM	60623
Toluene	ND	0.032		mg/Kg	1	6/15/2021 10:21:40 AM	60623
Ethylbenzene	ND	0.032		mg/Kg	1	6/15/2021 10:21:40 AM	60623
Xylenes, Total	ND	0.063		mg/Kg	1	6/15/2021 10:21:40 AM	60623
Surr: 4-Bromofluorobenzene	96.8	70-130		%Rec	1	6/15/2021 10:21:40 AM	60623

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

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

Analytical Report

Lab Order **2106764**

Date Reported: **6/21/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Ensolum

Client Sample ID: S-11

Project: Lateral K 54

Collection Date: 6/14/2021 11:20:00 AM

Lab ID: 2106764-005

Matrix: MEOH (SOIL)

Received Date: 6/15/2021 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	6/15/2021 10:20:41 AM	60634
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	8.6		mg/Kg	1	6/15/2021 11:05:22 AM	60633
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	6/15/2021 11:05:22 AM	60633
Surr: DNOP	86.5	70-130		%Rec	1	6/15/2021 11:05:22 AM	60633
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	6/15/2021 10:45:05 AM	60623
Surr: BFB	108	70-130		%Rec	1	6/15/2021 10:45:05 AM	60623
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.015		mg/Kg	1	6/15/2021 10:45:05 AM	60623
Toluene	ND	0.031		mg/Kg	1	6/15/2021 10:45:05 AM	60623
Ethylbenzene	ND	0.031		mg/Kg	1	6/15/2021 10:45:05 AM	60623
Xylenes, Total	ND	0.061		mg/Kg	1	6/15/2021 10:45:05 AM	60623
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	6/15/2021 10:45:05 AM	60623

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

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

Analytical Report

Lab Order **2106764**

Date Reported: **6/21/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Ensolum

Client Sample ID: S-12

Project: Lateral K 54

Collection Date: 6/14/2021 11:25:00 AM

Lab ID: 2106764-006

Matrix: MEOH (SOIL)

Received Date: 6/15/2021 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	100	60		mg/Kg	20	6/15/2021 10:33:05 AM	60634
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	6/15/2021 11:17:17 AM	60633
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/15/2021 11:17:17 AM	60633
Surr: DNOP	104	70-130		%Rec	1	6/15/2021 11:17:17 AM	60633
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	6/15/2021 11:08:37 AM	60623
Surr: BFB	107	70-130		%Rec	1	6/15/2021 11:08:37 AM	60623
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	6/15/2021 11:08:37 AM	60623
Toluene	ND	0.036		mg/Kg	1	6/15/2021 11:08:37 AM	60623
Ethylbenzene	ND	0.036		mg/Kg	1	6/15/2021 11:08:37 AM	60623
Xylenes, Total	ND	0.072		mg/Kg	1	6/15/2021 11:08:37 AM	60623
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	6/15/2021 11:08:37 AM	60623

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

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

Analytical Report

Lab Order **2106764**

Date Reported: **6/21/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Ensolum

Client Sample ID: S-13

Project: Lateral K 54

Collection Date: 6/14/2021 11:30:00 AM

Lab ID: 2106764-007

Matrix: MEOH (SOIL)

Received Date: 6/15/2021 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	6/15/2021 10:45:29 AM	60634
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	8.6		mg/Kg	1	6/15/2021 11:29:19 AM	60633
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	6/15/2021 11:29:19 AM	60633
Surr: DNOP	87.0	70-130		%Rec	1	6/15/2021 11:29:19 AM	60633
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	15		mg/Kg	5	6/15/2021 11:32:12 AM	60623
Surr: BFB	112	70-130		%Rec	5	6/15/2021 11:32:12 AM	60623
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.073		mg/Kg	5	6/15/2021 11:32:12 AM	60623
Toluene	ND	0.15		mg/Kg	5	6/15/2021 11:32:12 AM	60623
Ethylbenzene	ND	0.15		mg/Kg	5	6/15/2021 11:32:12 AM	60623
Xylenes, Total	ND	0.29		mg/Kg	5	6/15/2021 11:32:12 AM	60623
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	5	6/15/2021 11:32:12 AM	60623

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

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

Analytical Report

Lab Order 2106764

Date Reported: 6/21/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Ensolum

Client Sample ID: S-14

Project: Lateral K 54

Collection Date: 6/14/2021 11:35:00 AM

Lab ID: 2106764-008

Matrix: MEOH (SOIL) Received Date: 6/15/2021 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	6/15/2021 10:57:53 AM	60634
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	8.4		mg/Kg	1	6/15/2021 11:41:22 AM	60633
Motor Oil Range Organics (MRO)	ND	42		mg/Kg	1	6/15/2021 11:41:22 AM	60633
Surr: DNOP	88.0	70-130		%Rec	1	6/15/2021 11:41:22 AM	60633
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	180	3.1		mg/Kg	1	6/15/2021 11:55:50 AM	60623
Surr: BFB	588	70-130	S	%Rec	1	6/15/2021 11:55:50 AM	60623
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.10	0.015		mg/Kg	1	6/15/2021 11:55:50 AM	60623
Toluene	1.7	0.031		mg/Kg	1	6/15/2021 11:55:50 AM	60623
Ethylbenzene	0.61	0.031		mg/Kg	1	6/15/2021 11:55:50 AM	60623
Xylenes, Total	6.5	0.062		mg/Kg	1	6/15/2021 11:55:50 AM	60623
Surr: 4-Bromofluorobenzene	131	70-130	S	%Rec	1	6/15/2021 11:55:50 AM	60623

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106764

21-Jun-21

Client: Ensolum
Project: Lateral K 54

Sample ID: MB-60634	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 60634	RunNo: 79075								
Prep Date: 6/15/2021	Analysis Date: 6/15/2021	SeqNo: 2776293	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-60634	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 60634	RunNo: 79075								
Prep Date: 6/15/2021	Analysis Date: 6/15/2021	SeqNo: 2776294	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.1	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106764

21-Jun-21

Client: Ensolum
Project: Lateral K 54

Sample ID: MB-60633	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 60633	RunNo: 79081								
Prep Date: 6/15/2021	Analysis Date: 6/15/2021	SeqNo: 2775483			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	9.7		10.00		97.0	70	130			

Sample ID: LCS-60633	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 60633	RunNo: 79081								
Prep Date: 6/15/2021	Analysis Date: 6/15/2021	SeqNo: 2775484			Units: mg/Kg					
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	141			
Surr: DNOP	4.1		5.000		82.0	70	130			

Sample ID: 2106764-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: S-7	Batch ID: 60633	RunNo: 79081								
Prep Date: 6/15/2021	Analysis Date: 6/15/2021	SeqNo: 2775499			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	9.7	48.45	0	111	15	184			
Surr: DNOP	3.8		4.845		78.8	70	130			

Sample ID: 2106764-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: S-7	Batch ID: 60633	RunNo: 79081								
Prep Date: 6/15/2021	Analysis Date: 6/15/2021	SeqNo: 2775512			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	9.6	48.12	0	112	15	184	0.0141	23.9	
Surr: DNOP	3.5		4.812		73.3	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106764

21-Jun-21

Client: Ensolum
Project: Lateral K 54

Sample ID: mb-60623	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 60623	RunNo: 79078								
Prep Date: 6/14/2021	Analysis Date: 6/15/2021	SeqNo: 2775948	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	1100		1000		110	70	130			

Sample ID: ics-60623	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 60623	RunNo: 79078								
Prep Date: 6/14/2021	Analysis Date: 6/15/2021	SeqNo: 2775949	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	78.6	131			
Surr: BFB	1200		1000		115	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106764

21-Jun-21

Client: Ensolum
Project: Lateral K 54

Sample ID: mb-60623	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 60623	RunNo: 79078								
Prep Date: 6/14/2021	Analysis Date: 6/15/2021	SeqNo: 2775995	Units: mg/Kg							
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		103	70	130			

Sample ID: LCS-60623	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 60623	RunNo: 79078								
Prep Date: 6/14/2021	Analysis Date: 6/15/2021	SeqNo: 2775996	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	99.7	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		100	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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 Number: 2106764

RcptNo: 1

Received By: Juan Rojas 6/15/2021 7:55:00 AM

[Signature]

Completed By: Sean Livingston 6/15/2021 8:00:47 AM

[Signature]

Reviewed By: SPA 6.15.21

Chain of Custody

1. Is Chain of Custody complete? Yes [checked] No [] Not Present []

2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes [checked] No [] NA []

4. Were all samples received at a temperature of >0° C to 6.0°C Yes [checked] No [] NA []

5. Sample(s) in proper container(s)? Yes [checked] No []

6. Sufficient sample volume for indicated test(s)? Yes [checked] No []

7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No []

8. Was preservative added to bottles? Yes [] No [checked] NA []

9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [] No [] NA [checked]

10. Were any sample containers received broken? Yes [] No [checked]

11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes [checked] No []

12. Are matrices correctly identified on Chain of Custody? Yes [checked] No []

13. Is it clear what analyses were requested? Yes [checked] No []

14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes [checked] No []

of preserved bottles checked for pH: (<2 or >12 unless noted) Adjusted? Checked by: JR/KFG 6/15/21

Special Handling (if applicable)

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

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

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 1.7, Good, [], [], []

Chain-of-Custody Record

Client: Ensolun LLC

Mailing Address: 666 S Rio Grande

Phone #: 970-216-5235

email or Fax#:

QA/QC Package: Standard Level 4 (Full Validation)

Accreditation: Az Compliance

NELAC Other

EDD (Type)

Turn-Around Time: 100%

Standard Rush 6-15-21

Project Name: Lateral K-54

Project #:

05A1221445

Project Manager: K Summers

Sampler: ADPentL

On Ice: Yes No

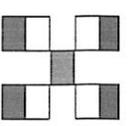
Cooler Temp (including CF): 19.0-2=1.7 (°C)

Container Type and #	Preservative Type	HEAL No.
<u>1465a1</u>	<u>NaCl</u>	<u>2106764</u>

Date	Time	Matrix	Sample Name
<u>6/14</u>	<u>1100</u>	<u>S</u>	<u>S-7</u>
<u>6/14</u>	<u>1105</u>	<u>S</u>	<u>S-8</u>
<u>6/14</u>	<u>1110</u>	<u>S</u>	<u>S-9</u>
<u>6/14</u>	<u>1115</u>	<u>S</u>	<u>S-10</u>
<u>6/14</u>	<u>1130</u>	<u>S</u>	<u>S-11</u>
<u>6/14</u>	<u>1135</u>	<u>S</u>	<u>S-12</u>
<u>6/14</u>	<u>1130</u>	<u>S</u>	<u>S-13</u>
<u>6/14</u>	<u>1135</u>	<u>S</u>	<u>S-14</u>

Date	Time	Received by:	Via:	Date	Time
<u>6/14</u>	<u>15:32</u>	<u>[Signature]</u>	<u>Hand Delivered</u>	<u>6/14/21</u>	<u>15:32</u>
<u>6/14</u>	<u>16:31</u>	<u>[Signature]</u>	<u>Carrier</u>	<u>6/15/21</u>	<u>7:55</u>

Remarks:	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
<u>Hand Delivered</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>Carrier</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

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



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

June 24, 2021

Kyle Summers

ENSOLUM

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX

RE: Lateral K 54

OrderNo.: 2106974

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 3 sample(s) on 6/18/2021 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,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order **2106974**

Date Reported: **6/24/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: SP-1

Project: Lateral K 54

Collection Date: 6/17/2021 11:00:00 AM

Lab ID: 2106974-001

Matrix: SOIL

Received Date: 6/18/2021 7:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	7.5		mg/Kg	5	6/18/2021 9:49:19 AM	60733
Sulfate	24	7.5		mg/Kg	5	6/18/2021 9:49:19 AM	60733
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/18/2021 10:33:05 AM	60725
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/18/2021 10:33:05 AM	60725
Surr: DNOP	81.6	70-130		%Rec	1	6/18/2021 10:33:05 AM	60725
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	6/18/2021 8:41:45 AM	G79210
Surr: BFB	105	70-130		%Rec	1	6/18/2021 8:41:45 AM	G79210
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	6/18/2021 8:41:45 AM	B79210
Toluene	ND	0.037		mg/Kg	1	6/18/2021 8:41:45 AM	B79210
Ethylbenzene	ND	0.037		mg/Kg	1	6/18/2021 8:41:45 AM	B79210
Xylenes, Total	ND	0.073		mg/Kg	1	6/18/2021 8:41:45 AM	B79210
Surr: 4-Bromofluorobenzene	96.8	70-130		%Rec	1	6/18/2021 8:41:45 AM	B79210

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

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

Analytical Report

Lab Order **2106974**

Date Reported: **6/24/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: SP-2

Project: Lateral K 54

Collection Date: 6/17/2021 11:05:00 AM

Lab ID: 2106974-002

Matrix: SOIL

Received Date: 6/18/2021 7:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	7.5		mg/Kg	5	6/18/2021 10:14:07 AM	60733
Sulfate	21	7.5		mg/Kg	5	6/18/2021 10:14:07 AM	60733
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/18/2021 10:45:27 AM	60725
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/18/2021 10:45:27 AM	60725
Surr: DNOP	80.5	70-130		%Rec	1	6/18/2021 10:45:27 AM	60725
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.7		mg/Kg	1	6/18/2021 9:05:10 AM	G79210
Surr: BFB	106	70-130		%Rec	1	6/18/2021 9:05:10 AM	G79210
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.029		mg/Kg	1	6/18/2021 9:05:10 AM	B79210
Toluene	ND	0.057		mg/Kg	1	6/18/2021 9:05:10 AM	B79210
Ethylbenzene	ND	0.057		mg/Kg	1	6/18/2021 9:05:10 AM	B79210
Xylenes, Total	ND	0.11		mg/Kg	1	6/18/2021 9:05:10 AM	B79210
Surr: 4-Bromofluorobenzene	97.7	70-130		%Rec	1	6/18/2021 9:05:10 AM	B79210

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

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

Analytical Report

Lab Order 2106974

Date Reported: 6/24/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: SP-3

Project: Lateral K 54

Collection Date: 6/17/2021 11:10:00 AM

Lab ID: 2106974-003

Matrix: SOIL

Received Date: 6/18/2021 7:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	7.5		mg/Kg	5	6/18/2021 10:38:56 AM	60733
Sulfate	28	7.5		mg/Kg	5	6/18/2021 10:38:56 AM	60733
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	6/18/2021 10:57:57 AM	60725
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/18/2021 10:57:57 AM	60725
Surr: DNOP	82.9	70-130		%Rec	1	6/18/2021 10:57:57 AM	60725
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	6/18/2021 9:28:39 AM	G79210
Surr: BFB	106	70-130		%Rec	1	6/18/2021 9:28:39 AM	G79210
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	6/18/2021 9:28:39 AM	B79210
Toluene	ND	0.033		mg/Kg	1	6/18/2021 9:28:39 AM	B79210
Ethylbenzene	ND	0.033		mg/Kg	1	6/18/2021 9:28:39 AM	B79210
Xylenes, Total	ND	0.066		mg/Kg	1	6/18/2021 9:28:39 AM	B79210
Surr: 4-Bromofluorobenzene	97.0	70-130		%Rec	1	6/18/2021 9:28:39 AM	B79210

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

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

Page 3 of 7

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106974

24-Jun-21

Client: ENSOLUM
Project: Lateral K 54

Sample ID: MB-60733	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 60733	RunNo: 79166								
Prep Date: 6/18/2021	Analysis Date: 6/18/2021	SeqNo: 2780115	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								
Sulfate	ND	1.5								

Sample ID: LCS-60733	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 60733	RunNo: 79166								
Prep Date: 6/18/2021	Analysis Date: 6/18/2021	SeqNo: 2780116	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	99.1	90	110			
Sulfate	30	1.5	30.00	0	99.6	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106974

24-Jun-21

Client: ENSOLUM
Project: Lateral K 54

Sample ID: MB-60725	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 60725	RunNo: 79195								
Prep Date: 6/17/2021	Analysis Date: 6/18/2021	SeqNo: 2779732	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	11		10.00		105	70	130			

Sample ID: LCS-60725	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 60725	RunNo: 79195								
Prep Date: 6/17/2021	Analysis Date: 6/18/2021	SeqNo: 2779733	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	90.0	68.9	141			
Surr: DNOP	4.2		5.000		83.1	70	130			

Sample ID: 2106974-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SP-1	Batch ID: 60725	RunNo: 79195								
Prep Date: 6/18/2021	Analysis Date: 6/18/2021	SeqNo: 2782403	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	9.4	46.90	5.004	75.9	15	184			
Surr: DNOP	4.1		4.690		87.6	70	130			

Sample ID: 2106974-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: SP-1	Batch ID: 60725	RunNo: 79195								
Prep Date: 6/18/2021	Analysis Date: 6/18/2021	SeqNo: 2782404	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.9	49.65	5.004	76.3	15	184	5.51	23.9	
Surr: DNOP	4.4		4.965		88.7	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106974

24-Jun-21

Client: ENSOLUM
Project: Lateral K 54

Sample ID: mb	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: G79210	RunNo: 79210								
Prep Date:	Analysis Date: 6/18/2021	SeqNo: 2780536			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	1100		1000		106	70	130			

Sample ID: 2.5ug gro lcs	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: G79210	RunNo: 79210								
Prep Date:	Analysis Date: 6/18/2021	SeqNo: 2780537			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	106	78.6	131			
Surr: BFB	1200		1000		118	70	130			

Sample ID: 2106974-001ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: SP-1	Batch ID: G79210	RunNo: 79210								
Prep Date:	Analysis Date: 6/18/2021	SeqNo: 2780548			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	3.7	18.36	0	109	61.3	114			
Surr: BFB	910		734.2		123	70	130			

Sample ID: 2106974-001amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: SP-1	Batch ID: G79210	RunNo: 79210								
Prep Date:	Analysis Date: 6/18/2021	SeqNo: 2780549			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	3.7	18.36	0	109	61.3	114	0.293	20	
Surr: BFB	920		734.2		126	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106974

24-Jun-21

Client: ENSOLUM
Project: Lateral K 54

Sample ID: mb	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: B79210	RunNo: 79210								
Prep Date:	Analysis Date: 6/18/2021	SeqNo: 2780631	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.97		1.000		96.6	70	130			

Sample ID: 100ng btex lcs	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: B79210	RunNo: 79210								
Prep Date:	Analysis Date: 6/18/2021	SeqNo: 2780646	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.2	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	100	80	120			
Xylenes, Total	3.0	0.10	3.000	0	100	80	120			
Surr: 4-Bromofluorobenzene	0.99		1.000		98.8	70	130			

Sample ID: 2106974-002ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: SP-2	Batch ID: B79210	RunNo: 79210								
Prep Date:	Analysis Date: 6/18/2021	SeqNo: 2780714	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.2	0.11	1.145	0	103	59.7	119			
Benzene	1.1	0.029	1.145	0	96.7	80	120			
Toluene	1.1	0.057	1.145	0	100	80	120			
Ethylbenzene	1.2	0.057	1.145	0	100	80	120			
Xylenes, Total	3.5	0.11	3.436	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.145		102	70	130			

Sample ID: 2106974-002amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: SP-2	Batch ID: B79210	RunNo: 79210								
Prep Date:	Analysis Date: 6/18/2021	SeqNo: 2780715	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.029	1.145	0	95.2	80	120	1.59	20	
Toluene	1.1	0.057	1.145	0	99.2	80	120	1.20	20	
Ethylbenzene	1.1	0.057	1.145	0	99.5	80	120	0.970	20	
Xylenes, Total	3.4	0.11	3.436	0	100	80	120	1.12	20	
Surr: 4-Bromofluorobenzene	1.2		1.145		106	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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 Number: **2106974** RcptNo: **1**

Received By: **Juan Rojas** 6/18/2021 7:05:00 AM *Juan Rojas*

Completed By: **Isaiah Ortiz** 6/18/2021 7:20:27 AM *I-Ortiz*

Reviewed By: *JR 6/18/21*

Chain of Custody

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

Log In

- 3. Was an attempt made to cool the samples? Yes No NA
- 4. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 5. Sample(s) in proper container(s)? Yes No
- 6. Sufficient sample volume for indicated test(s)? Yes No
- 7. Are samples (except VOA and ONG) properly preserved? Yes No
- 8. Was preservative added to bottles? Yes No NA
- 9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes No NA
- 10. Were any sample containers received broken? Yes No
- 11. Does paperwork match bottle labels? Yes No
(Note discrepancies on chain of custody)
- 12. Are matrices correctly identified on Chain of Custody? Yes No
- 13. Is it clear what analyses were requested? Yes No
- 14. Were all holding times able to be met? Yes No
(If no, notify customer for authorization.)

JO
of preserved bottles checked for pH: *6-18-21*
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

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	Seal Intact	Seal No	Seal Date	Signed By
1	1.5	Good	Not Present			

Chain-of-Custody Record

Client: Enselum LLC

Mailing Address: Box S Rio Grande

Suit A 8740

Phone #:

email or Fax#:

QA/QC Package:

Standard Level 4 (Full Validation)

Accreditation: Az Compliance

NELAC Other

EDD (Type)

Turn-Around Time: 10 days

Standard Rush 6-18-21

Project Name:

Lateral K-54

Project #:

05A1006145

Project Manager:

K. Sommers

Sampler: C. D. Aponte

On Ice: Yes No

of Coolers: 1

Cooler Temp (including CF): 1.6-0.1-1.5 (°C)

Container Type and # Preservative Type HEAL No. 2106974

14oz Jar Ice 001

14oz Jar Ice 002

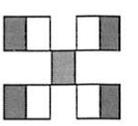
14oz Jar Ice 003

TD 6-18-21

Date	Time	Matrix	Sample Name
6/17	1100	S	SP-1
6/17	0605	S	SP-2
6/17	1110	S	SP-3

Received by:	Via:	Date	Time
<u>[Signature]</u>	<u>Carrier</u>	<u>6/18/21</u>	<u>7:05</u>

Remarks:
<u>Tom Tom long</u>
<u>AEE N 53417</u>
<u>Same Day</u>



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX / MTBE / TMB's (8021)	
TPH:8015D(GRO / DRO / MRO)	
8081 Pesticides/8082 PCB's	
EDB (Method 504.1)	
PAHs by 8310 or 8270SIMS	
RCRA 8 Metals	
Cl ⁻ , F ⁻ , Br ⁻ , NO ₃ ⁻ , NO ₂ ⁻ , PO ₄ ⁻ , SO ₄ ⁻	
8260 (VOA)	
8270 (Semi-VOA)	
Total Coliform (Present/Absent)	
<u>Sulfate</u>	

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



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

June 28, 2021

Kyle Summers

ENSOLUM

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX:

RE: Lateral K 54

OrderNo.: 2106B91

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/23/2021 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,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2106B91

Date Reported: 6/28/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-15

Project: Lateral K 54

Collection Date: 6/22/2021 10:00:00 AM

Lab ID: 2106B91-001

Matrix: MEOH (SOIL) Received Date: 6/23/2021 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	61		mg/Kg	20	6/23/2021 4:34:41 PM	60865
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	48	3.6		mg/Kg	1	6/24/2021 3:47:05 AM	B79322
Surr: BFB	89.0	70-130		%Rec	1	6/24/2021 3:47:05 AM	B79322
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	24	8.9		mg/Kg	1	6/23/2021 1:44:25 PM	60851
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	6/23/2021 1:44:25 PM	60851
Surr: DNOP	104	70-130		%Rec	1	6/23/2021 1:44:25 PM	60851
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.018		mg/Kg	1	6/24/2021 3:47:05 AM	A79322
Toluene	ND	0.036		mg/Kg	1	6/24/2021 3:47:05 AM	A79322
Ethylbenzene	ND	0.036		mg/Kg	1	6/24/2021 3:47:05 AM	A79322
Xylenes, Total	0.36	0.072		mg/Kg	1	6/24/2021 3:47:05 AM	A79322
Surr: 1,2-Dichloroethane-d4	119	70-130		%Rec	1	6/24/2021 3:47:05 AM	A79322
Surr: 4-Bromofluorobenzene	86.8	70-130		%Rec	1	6/24/2021 3:47:05 AM	A79322
Surr: Dibromofluoromethane	84.2	70-130		%Rec	1	6/24/2021 3:47:05 AM	A79322
Surr: Toluene-d8	110	70-130		%Rec	1	6/24/2021 3:47:05 AM	A79322

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

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

Analytical Report

Lab Order **2106B91**

Date Reported: **6/28/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-16

Project: Lateral K 54

Collection Date: 6/22/2021 10:05:00 AM

Lab ID: 2106B91-002

Matrix: MEOH (SOIL)

Received Date: 6/23/2021 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	ND	60		mg/Kg	20	6/23/2021 4:47:05 PM	60865
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	16	16		mg/Kg	5	6/24/2021 4:44:13 AM	B79322
Surr: BFB	92.4	70-130		%Rec	5	6/24/2021 4:44:13 AM	B79322
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	9.6	9.4		mg/Kg	1	6/23/2021 2:36:52 PM	60851
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/23/2021 2:36:52 PM	60851
Surr: DNOP	109	70-130		%Rec	1	6/23/2021 2:36:52 PM	60851
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.080		mg/Kg	5	6/24/2021 4:44:13 AM	A79322
Toluene	ND	0.16		mg/Kg	5	6/24/2021 4:44:13 AM	A79322
Ethylbenzene	ND	0.16		mg/Kg	5	6/24/2021 4:44:13 AM	A79322
Xylenes, Total	ND	0.32		mg/Kg	5	6/24/2021 4:44:13 AM	A79322
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	5	6/24/2021 4:44:13 AM	A79322
Surr: 4-Bromofluorobenzene	98.5	70-130		%Rec	5	6/24/2021 4:44:13 AM	A79322
Surr: Dibromofluoromethane	89.1	70-130		%Rec	5	6/24/2021 4:44:13 AM	A79322
Surr: Toluene-d8	110	70-130		%Rec	5	6/24/2021 4:44:13 AM	A79322

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

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

Analytical Report

Lab Order **2106B91**

Date Reported: **6/28/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-17

Project: Lateral K 54

Collection Date: 6/22/2021 10:10:00 AM

Lab ID: 2106B91-003

Matrix: MEOH (SOIL) **Received Date:** 6/23/2021 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	140	60		mg/Kg	20	6/23/2021 4:59:30 PM	60865
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	6/24/2021 5:12:43 AM	B79322
Surr: BFB	94.4	70-130		%Rec	1	6/24/2021 5:12:43 AM	B79322
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	6/23/2021 2:49:37 PM	60851
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/23/2021 2:49:37 PM	60851
Surr: DNOP	109	70-130		%Rec	1	6/23/2021 2:49:37 PM	60851
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.016		mg/Kg	1	6/24/2021 5:12:43 AM	A79322
Toluene	ND	0.032		mg/Kg	1	6/24/2021 5:12:43 AM	A79322
Ethylbenzene	ND	0.032		mg/Kg	1	6/24/2021 5:12:43 AM	A79322
Xylenes, Total	ND	0.063		mg/Kg	1	6/24/2021 5:12:43 AM	A79322
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	6/24/2021 5:12:43 AM	A79322
Surr: 4-Bromofluorobenzene	99.5	70-130		%Rec	1	6/24/2021 5:12:43 AM	A79322
Surr: Dibromofluoromethane	85.4	70-130		%Rec	1	6/24/2021 5:12:43 AM	A79322
Surr: Toluene-d8	108	70-130		%Rec	1	6/24/2021 5:12:43 AM	A79322

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

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

Analytical Report

Lab Order 2106B91

Date Reported: 6/28/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-18

Project: Lateral K 54

Collection Date: 6/22/2021 10:15:00 AM

Lab ID: 2106B91-004

Matrix: MEOH (SOIL) Received Date: 6/23/2021 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	140	60		mg/Kg	20	6/23/2021 5:11:54 PM	60865
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: JMR
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	6/24/2021 5:41:22 AM	B79322
Surr: BFB	88.9	70-130		%Rec	1	6/24/2021 5:41:22 AM	B79322
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	6/23/2021 3:02:22 PM	60851
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	6/23/2021 3:02:22 PM	60851
Surr: DNOP	110	70-130		%Rec	1	6/23/2021 3:02:22 PM	60851
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	0.019		mg/Kg	1	6/24/2021 5:41:22 AM	A79322
Toluene	ND	0.037		mg/Kg	1	6/24/2021 5:41:22 AM	A79322
Ethylbenzene	ND	0.037		mg/Kg	1	6/24/2021 5:41:22 AM	A79322
Xylenes, Total	ND	0.074		mg/Kg	1	6/24/2021 5:41:22 AM	A79322
Surr: 1,2-Dichloroethane-d4	96.7	70-130		%Rec	1	6/24/2021 5:41:22 AM	A79322
Surr: 4-Bromofluorobenzene	96.0	70-130		%Rec	1	6/24/2021 5:41:22 AM	A79322
Surr: Dibromofluoromethane	83.2	70-130		%Rec	1	6/24/2021 5:41:22 AM	A79322
Surr: Toluene-d8	106	70-130		%Rec	1	6/24/2021 5:41:22 AM	A79322

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106B91

28-Jun-21

Client: ENSOLUM
Project: Lateral K 54

Sample ID: MB-60865	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 60865	RunNo: 79312								
Prep Date: 6/23/2021	Analysis Date: 6/23/2021	SeqNo: 2785780	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-60865	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 60865	RunNo: 79312								
Prep Date: 6/23/2021	Analysis Date: 6/23/2021	SeqNo: 2785781	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.7	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106B91

28-Jun-21

Client: ENSOLUM
Project: Lateral K 54

Sample ID: MB-60851	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 60851	RunNo: 79290								
Prep Date: 6/23/2021	Analysis Date: 6/23/2021	SeqNo: 2786477			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	11		10.00		114	70	130			

Sample ID: LCS-60851	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 60851	RunNo: 79290								
Prep Date: 6/23/2021	Analysis Date: 6/23/2021	SeqNo: 2786478			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.4	68.9	141			
Surr: DNOP	5.2		5.000		104	70	130			

Sample ID: 2106B91-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: S-15	Batch ID: 60851	RunNo: 79290								
Prep Date: 6/23/2021	Analysis Date: 6/23/2021	SeqNo: 2786510			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	88	9.0	44.84	24.48	142	15	184			
Surr: DNOP	4.7		4.484		106	70	130			

Sample ID: 2106B91-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: S-15	Batch ID: 60851	RunNo: 79290								
Prep Date: 6/23/2021	Analysis Date: 6/23/2021	SeqNo: 2786511			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	80	8.5	42.37	24.48	131	15	184	9.68	23.9	
Surr: DNOP	4.6		4.237		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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

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

WO#: 2106B91

28-Jun-21

Client: ENSOLUM

Project: Lateral K 54

Sample ID: 100ng Ics		SampType: LCS		TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: LCSS		Batch ID: A79322		RunNo: 79322						
Prep Date:		Analysis Date: 6/23/2021		SeqNo: 2786194		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	109	70	130			
Toluene	1.1	0.050	1.000	0	108	70	130			
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.52		0.5000		105	70	130			

Sample ID: Ics-60750		SampType: LCS4		TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: BatchQC		Batch ID: 60750		RunNo: 79322						
Prep Date: 6/19/2021		Analysis Date: 6/24/2021		SeqNo: 2786195		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		101	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.44		0.5000		87.2	70	130			
Surr: Toluene-d8	0.57		0.5000		114	70	130			

Sample ID: mb		SampType: MBLK		TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: PBS		Batch ID: A79322		RunNo: 79322						
Prep Date:		Analysis Date: 6/23/2021		SeqNo: 2786196		Units: mg/Kg				
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: 1,2-Dichloroethane-d4	0.50		0.5000		100	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		95.9	70	130			
Surr: Toluene-d8	0.52		0.5000		104	70	130			

Sample ID: mb-60750		SampType: MBLK		TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: PBS		Batch ID: 60750		RunNo: 79322						
Prep Date: 6/19/2021		Analysis Date: 6/24/2021		SeqNo: 2786197		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		104	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		104	70	130			
Surr: Dibromofluoromethane	0.44		0.5000		87.7	70	130			
Surr: Toluene-d8	0.55		0.5000		110	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 Quantitative Limit
S % Recovery outside of range due to dilution or matrix

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106B91

28-Jun-21

Client: ENSOLUM
Project: Lateral K 54

Sample ID: 2.5ug gro lcs	SampType: LCS		TestCode: EPA Method 8015D Mod: Gasoline Range							
Client ID: LCSS	Batch ID: B79322		RunNo: 79322							
Prep Date:	Analysis Date: 6/23/2021		SeqNo: 2786226		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.2	70	130			
Surr: BFB	480		500.0		95.3	70	130			

Sample ID: lcs-60750	SampType: LCS		TestCode: EPA Method 8015D Mod: Gasoline Range							
Client ID: LCSS	Batch ID: 60750		RunNo: 79322							
Prep Date: 6/19/2021	Analysis Date: 6/23/2021		SeqNo: 2786227		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	460		500.0		92.0	70	130			

Sample ID: mb	SampType: MBLK		TestCode: EPA Method 8015D Mod: Gasoline Range							
Client ID: PBS	Batch ID: B79322		RunNo: 79322							
Prep Date:	Analysis Date: 6/23/2021		SeqNo: 2786228		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	450		500.0		89.8	70	130			

Sample ID: mb-60750	SampType: MBLK		TestCode: EPA Method 8015D Mod: Gasoline Range							
Client ID: PBS	Batch ID: 60750		RunNo: 79322							
Prep Date: 6/19/2021	Analysis Date: 6/24/2021		SeqNo: 2786229		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	470		500.0		94.1	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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 Number: 2106B91 RcptNo: 1

Received By: Scott Anderson 6/23/2021 8:45:00 AM
Completed By: Desiree Dominguez 6/23/2021 9:00:41 AM
Reviewed By: DAD 6.23.21

Chain of Custody

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

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [] NA []
4. Were all samples received at a temperature of >0° C to 6.0° C Yes [checked] No [] NA []
5. Sample(s) in proper container(s)? Yes [checked] No []
6. Sufficient sample volume for indicated test(s)? Yes [checked] No []
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No []
8. Was preservative added to bottles? Yes [] No [checked] NA []
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [] No [] NA [checked]
10. Were any sample containers received broken? Yes [] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No []
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No []
13. Is it clear what analyses were requested? Yes [checked] No []
14. Were all holding times able to be met? Yes [checked] No []

of preserved bottles checked for pH:
(<2 or >12 unless noted)
Adjusted?
Checked by: MPG / RLC
6/23/21

Special Handling (if applicable)

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

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

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 1.2, Good, Yes, , ,

Chain-of-Custody Record

Client: Ensochem, LLC
 Mailing Address: 606 S Rio Grande
Suit A 87410
 Phone #: _____
 email or Fax#: _____
 QA/QC Package:
 Standard Level 4 (Full Validation)
 Accreditation: Az Compliance
 NELAC Other
 EDD (Type) _____

Turn-Around Time: 110
 Standard Rush 6-23-21
 Project Name: Lateral K-54
 Project #: 05A1001145
 Project Manager: K. Summers
 Sampler: C. Apantzi
 On Ice: Yes No
 # of Coolers: 1
 Cooler Temp (including CF): 1.3 - 0.1 = 1.2 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
6/27	1000	S	S-15	1 ^{1/2} Zip Cool	Cool	2106B91-001
6/22	1005	S	S-16	1 Cool	Cool	-002
6/22	1010	S	S-17	1 Cool	Cool	-003
6/22	1015	S	S-18	1 Cool	Cool	-004

Date: 6/22/21 Time: 1443 Relinquished by: [Signature]
 Date: 6/22/21 Time: 1500 Relinquished by: [Signature]
 Received by: [Signature] Date: 6-23-21 Time: 8:45
 Received by: SPA CDO Date: 6-23-21 Time: 8:45



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX / MTBE / TMB's (8021)	<input checked="" type="checkbox"/>
TPH:8015D(GRO / DRO / MRO)	<input checked="" type="checkbox"/>
8081 Pesticides/8082 PCB's	
EDB (Method 504.1)	
PAHs by 8310 or 8270SIMS	
RCRA 8 Metals	
Cl, F, Br, NO ₂ , NO ₃ , PO ₄ , SO ₄	<input checked="" type="checkbox"/>
8260 (VOA)	
8270 (Semi-VOA)	
Total Coliform (Present/Absent)	

Remarks: PM Tom Long
AFE # N53447
Sample



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

July 01, 2021

Kyle Summers

ENSOLUM

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX

RE: Lateral K-54

OrderNo.: 2106C59

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 6 sample(s) on 6/24/2021 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,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2106C59

Date Reported: 7/1/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: TP-1a

Project: Lateral K-54

Collection Date: 6/23/2021 10:00:00 AM

Lab ID: 2106C59-001

Matrix: MEOH (SOIL) Received Date: 6/24/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	6/24/2021 9:57:04 AM	60897
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	21	9.6		mg/Kg	1	6/24/2021 11:11:43 AM	60895
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/24/2021 11:11:43 AM	60895
Surr: DNOP	85.3	70-130		%Rec	1	6/24/2021 11:11:43 AM	60895
EPA METHOD 8015D: GASOLINE RANGE							Analyst: mb
Gasoline Range Organics (GRO)	83	16		mg/Kg	5	6/24/2021 11:48:00 AM	G79327
Surr: BFB	153	70-130	S	%Rec	5	6/24/2021 11:48:00 AM	G79327
EPA METHOD 8021B: VOLATILES							Analyst: mb
Benzene	ND	0.082		mg/Kg	5	6/24/2021 11:48:00 AM	R79327
Toluene	ND	0.16		mg/Kg	5	6/24/2021 11:48:00 AM	R79327
Ethylbenzene	0.33	0.16		mg/Kg	5	6/24/2021 11:48:00 AM	R79327
Xylenes, Total	3.5	0.33		mg/Kg	5	6/24/2021 11:48:00 AM	R79327
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	5	6/24/2021 11:48:00 AM	R79327

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

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

Page 1 of 12

Analytical Report

Lab Order **2106C59**

Date Reported: 7/1/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: TP-1b

Project: Lateral K-54

Collection Date: 6/23/2021 10:05:00 AM

Lab ID: 2106C59-002

Matrix: MEOH (SOIL)

Received Date: 6/24/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	6/24/2021 10:09:29 AM	60897
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	11	10		mg/Kg	1	6/24/2021 11:36:03 AM	60895
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/24/2021 11:36:03 AM	60895
Surr: DNOP	83.5	70-130		%Rec	1	6/24/2021 11:36:03 AM	60895
EPA METHOD 8015D: GASOLINE RANGE							Analyst: mb
Gasoline Range Organics (GRO)	ND	17		mg/Kg	5	6/24/2021 12:28:00 PM	G79327
Surr: BFB	104	70-130		%Rec	5	6/24/2021 12:28:00 PM	G79327
EPA METHOD 8021B: VOLATILES							Analyst: mb
Benzene	ND	0.084		mg/Kg	5	6/24/2021 12:28:00 PM	R79327
Toluene	ND	0.17		mg/Kg	5	6/24/2021 12:28:00 PM	R79327
Ethylbenzene	ND	0.17		mg/Kg	5	6/24/2021 12:28:00 PM	R79327
Xylenes, Total	ND	0.34		mg/Kg	5	6/24/2021 12:28:00 PM	R79327
Surr: 4-Bromofluorobenzene	96.0	70-130		%Rec	5	6/24/2021 12:28:00 PM	R79327

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

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

Analytical Report

Lab Order **2106C59**

Date Reported: 7/1/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: TP-2a

Project: Lateral K-54

Collection Date: 6/23/2021 12:00:00 PM

Lab ID: 2106C59-003

Matrix: MEOH (SOIL)

Received Date: 6/24/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	81	59		mg/Kg	20	6/24/2021 10:21:53 AM	60897
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/24/2021 12:00:21 PM	60895
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/24/2021 12:00:21 PM	60895
Surr: DNOP	87.4	70-130		%Rec	1	6/24/2021 12:00:21 PM	60895
EPA METHOD 8015D: GASOLINE RANGE							Analyst: mb
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	6/24/2021 12:48:00 PM	G79327
Surr: BFB	86.4	70-130		%Rec	1	6/24/2021 12:48:00 PM	G79327
EPA METHOD 8021B: VOLATILES							Analyst: mb
Benzene	ND	0.018		mg/Kg	1	6/24/2021 12:48:00 PM	R79327
Toluene	ND	0.037		mg/Kg	1	6/24/2021 12:48:00 PM	R79327
Ethylbenzene	ND	0.037		mg/Kg	1	6/24/2021 12:48:00 PM	R79327
Xylenes, Total	ND	0.074		mg/Kg	1	6/24/2021 12:48:00 PM	R79327
Surr: 4-Bromofluorobenzene	88.4	70-130		%Rec	1	6/24/2021 12:48:00 PM	R79327

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

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

Analytical Report

Lab Order **2106C59**

Date Reported: 7/1/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: TP-2b

Project: Lateral K-54

Collection Date: 6/23/2021 12:05:00 PM

Lab ID: 2106C59-004

Matrix: MEOH (SOIL) **Received Date:** 6/24/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	6/24/2021 10:34:18 AM	60897
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/24/2021 12:24:41 PM	60895
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/24/2021 12:24:41 PM	60895
Surr: DNOP	81.9	70-130		%Rec	1	6/24/2021 12:24:41 PM	60895
EPA METHOD 8015D: GASOLINE RANGE							Analyst: mb
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	6/24/2021 1:08:00 PM	G79327
Surr: BFB	91.2	70-130		%Rec	1	6/24/2021 1:08:00 PM	G79327
EPA METHOD 8021B: VOLATILES							Analyst: mb
Benzene	ND	0.020		mg/Kg	1	6/24/2021 1:08:00 PM	R79327
Toluene	ND	0.040		mg/Kg	1	6/24/2021 1:08:00 PM	R79327
Ethylbenzene	ND	0.040		mg/Kg	1	6/24/2021 1:08:00 PM	R79327
Xylenes, Total	ND	0.080		mg/Kg	1	6/24/2021 1:08:00 PM	R79327
Surr: 4-Bromofluorobenzene	91.0	70-130		%Rec	1	6/24/2021 1:08:00 PM	R79327

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

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

Analytical Report

Lab Order **2106C59**

Date Reported: 7/1/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: TP-3a

Project: Lateral K-54

Collection Date: 6/23/2021 1:00:00 PM

Lab ID: 2106C59-005

Matrix: MEOH (SOIL) **Received Date:** 6/24/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	89	61		mg/Kg	20	6/24/2021 10:46:42 AM	60897
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/24/2021 10:07:25 AM	60895
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/24/2021 10:07:25 AM	60895
Surr: DNOP	101	70-130		%Rec	1	6/24/2021 10:07:25 AM	60895
EPA METHOD 8015D: GASOLINE RANGE							Analyst: mb
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	6/24/2021 1:28:00 PM	G79327
Surr: BFB	96.0	70-130		%Rec	1	6/24/2021 1:28:00 PM	G79327
EPA METHOD 8021B: VOLATILES							Analyst: mb
Benzene	ND	0.017		mg/Kg	1	6/24/2021 1:28:00 PM	R79327
Toluene	ND	0.033		mg/Kg	1	6/24/2021 1:28:00 PM	R79327
Ethylbenzene	ND	0.033		mg/Kg	1	6/24/2021 1:28:00 PM	R79327
Xylenes, Total	ND	0.067		mg/Kg	1	6/24/2021 1:28:00 PM	R79327
Surr: 4-Bromofluorobenzene	90.8	70-130		%Rec	1	6/24/2021 1:28:00 PM	R79327

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

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

Analytical Report

Lab Order **2106C59**

Date Reported: 7/1/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: TP-3b

Project: Lateral K-54

Collection Date: 6/23/2021 1:05:00 PM

Lab ID: 2106C59-006

Matrix: MEOH (SOIL) **Received Date:** 6/24/2021 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	64	60		mg/Kg	20	6/24/2021 10:59:06 AM	60897
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/24/2021 10:31:09 AM	60895
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/24/2021 10:31:09 AM	60895
Surr: DNOP	98.9	70-130		%Rec	1	6/24/2021 10:31:09 AM	60895
EPA METHOD 8015D: GASOLINE RANGE							Analyst: mb
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	6/24/2021 1:48:00 PM	G79327
Surr: BFB	91.7	70-130		%Rec	1	6/24/2021 1:48:00 PM	G79327
EPA METHOD 8021B: VOLATILES							Analyst: mb
Benzene	ND	0.020		mg/Kg	1	6/24/2021 1:48:00 PM	R79327
Toluene	ND	0.039		mg/Kg	1	6/24/2021 1:48:00 PM	R79327
Ethylbenzene	ND	0.039		mg/Kg	1	6/24/2021 1:48:00 PM	R79327
Xylenes, Total	ND	0.079		mg/Kg	1	6/24/2021 1:48:00 PM	R79327
Surr: 4-Bromofluorobenzene	89.9	70-130		%Rec	1	6/24/2021 1:48:00 PM	R79327

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106C59

01-Jul-21

Client: ENSOLUM
Project: Lateral K-54

Sample ID: MB-60897	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 60897	RunNo: 79336								
Prep Date: 6/24/2021	Analysis Date: 6/24/2021	SeqNo: 2788030	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-60897	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 60897	RunNo: 79336								
Prep Date: 6/24/2021	Analysis Date: 6/24/2021	SeqNo: 2788031	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106C59

01-Jul-21

Client: ENSOLUM
Project: Lateral K-54

Sample ID: LCS-60895	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 60895	RunNo: 79325								
Prep Date: 6/24/2021	Analysis Date: 6/24/2021	SeqNo: 2786531	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	98.7	68.9	141			
Surr: DNOP	4.1		5.000		81.6	70	130			

Sample ID: MB-60895	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 60895	RunNo: 79325								
Prep Date: 6/24/2021	Analysis Date: 6/24/2021	SeqNo: 2786532	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		81.5	70	130			

Sample ID: 2106C59-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: TP-1a	Batch ID: 60895	RunNo: 79325								
Prep Date: 6/24/2021	Analysis Date: 6/24/2021	SeqNo: 2787405	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	69	9.8	49.21	21.46	96.1	15	184			
Surr: DNOP	4.0		4.921		81.4	70	130			

Sample ID: 2106C59-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: TP-1a	Batch ID: 60895	RunNo: 79325								
Prep Date: 6/24/2021	Analysis Date: 6/24/2021	SeqNo: 2787406	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	67	9.6	48.12	21.46	94.4	15	184	2.72	23.9	
Surr: DNOP	4.2		4.812		88.1	70	130	0	0	

Sample ID: LCS-60867	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 60867	RunNo: 79325								
Prep Date: 6/23/2021	Analysis Date: 6/24/2021	SeqNo: 2787407	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		85.6	70	130			

Sample ID: MB-60867	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 60867	RunNo: 79325								
Prep Date: 6/23/2021	Analysis Date: 6/24/2021	SeqNo: 2787409	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106C59

01-Jul-21

Client: ENSOLUM
Project: Lateral K-54

Sample ID: MB-60867	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 60867	RunNo: 79325								
Prep Date: 6/23/2021	Analysis Date: 6/24/2021	SeqNo: 2787409	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.7		10.00		86.7	70	130			

Sample ID: LCS-60876	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 60876	RunNo: 79325								
Prep Date: 6/23/2021	Analysis Date: 6/25/2021	SeqNo: 2789216	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.2		5.000		83.2	70	130			

Sample ID: MB-60876	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 60876	RunNo: 79325								
Prep Date: 6/23/2021	Analysis Date: 6/25/2021	SeqNo: 2789218	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.3		10.00		92.6	70	130			

Sample ID: MB-60915	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 60915	RunNo: 79325								
Prep Date: 6/24/2021	Analysis Date: 6/26/2021	SeqNo: 2789501	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.8		10.00		98.4	70	130			

Sample ID: LCS-60915	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 60915	RunNo: 79325								
Prep Date: 6/24/2021	Analysis Date: 6/26/2021	SeqNo: 2789503	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7		5.000		93.7	70	130			

Sample ID: LCS-60942	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 60942	RunNo: 79325								
Prep Date: 6/26/2021	Analysis Date: 6/27/2021	SeqNo: 2789806	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.7		5.000		74.6	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106C59

01-Jul-21

Client: ENSOLUM

Project: Lateral K-54

Sample ID: MB-60942	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 60942	RunNo: 79325								
Prep Date: 6/26/2021	Analysis Date: 6/27/2021	SeqNo: 2789807	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.4		10.00		74.2	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106C59

01-Jul-21

Client: ENSOLUM
Project: Lateral K-54

Sample ID: 2.5UG GRO LCS	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: G79327	RunNo: 79327								
Prep Date:	Analysis Date: 6/24/2021	SeqNo: 2786724	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.7	78.6	131			
Surr: BFB	1300		1000		125	70	130			

Sample ID: mb	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: G79327	RunNo: 79327								
Prep Date:	Analysis Date: 6/24/2021	SeqNo: 2786725	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	970		1000		97.0	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106C59

01-Jul-21

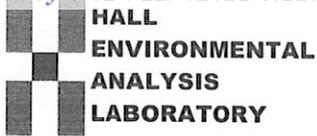
Client: ENSOLUM

Project: Lateral K-54

Sample ID: mb	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: R79327	RunNo: 79327								
Prep Date:	Analysis Date: 6/24/2021	SeqNo: 2786726			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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 Number: 2106C59 RcptNo: 1

Received By: Juan Rojas 6/24/2021 7:50:00 AM
Completed By: Cheyenne Cason 6/24/2021 8:02:33 AM
Reviewed By: [Signature] 6-24-21

Chain of Custody

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

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [] NA []
4. Were all samples received at a temperature of >0° C to 6.0° C? Yes [checked] No [] NA []
5. Sample(s) in proper container(s)? Yes [checked] No []
6. Sufficient sample volume for indicated test(s)? Yes [checked] No []
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No []
8. Was preservative added to bottles? Yes [] No [checked] NA []
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [] No [] NA [checked]
10. Were any sample containers received broken? Yes [] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No []
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No []
13. Is it clear what analyses were requested? Yes [checked] No []
14. Were all holding times able to be met? Yes [checked] No []

of preserved bottles checked for pH: (<2 or >12 unless noted)
Adjusted?
Checked by: MDC 6/23/21

Special Handling (if applicable)

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

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

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 2.1, Good, [], [], []

Chain-of-Custody Record

Client: Environ, LLC

Mailing Address: 601 S Rio Grande
Suit A 87410

Phone #: _____

email or Fax#: _____

QA/QC Package:
 Standard Level 4 (Full Validation)

Accreditation: Az Compliance
 NELAC Other

EDD (Type) _____

Turn-Around Time: Weeks

Standard Rush

Project Name: Lateral K-54

Project #: 05A1001145

Project Manager: K Summers

Sampler: C D Agent

On Ice: Yes No

of Coolers: 1

Cooler Temp (including CP): 7.3-0.2=2.1 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
6/23	1000	S	TP-1a	1 <u>Coal</u>	<u>Coal</u>	2106059
6/23	1005	S	TP-1b	1 <u>Coal</u>	<u>Coal</u>	001
6/23	1300	S	TP-2a	1 <u>Coal</u>	<u>Coal</u>	002
6/23	1305	S	TP-2b	1 <u>Coal</u>	<u>Coal</u>	003
6/23	1300	S	TP-3a	1 <u>Coal</u>	<u>Coal</u>	004
6/23	1305	S	TP-3b	1 <u>Coal</u>	<u>Coal</u>	005
						006

Date: 6/23/21 Time: 1505 Relinquished by: [Signature]

Date: 6/23/21 Time: 1505 Relinquished by: [Signature]

Date: 6/23/21 Time: 1505 Relinquished by: [Signature]



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Analysis Request	Response
TPH:8015D(GRO / DRO / MRO)	Y
8081 Pesticides/8082 PCB's	
EDB (Method 504.1)	
PAHs by 8310 or 8270SIMS	
RCRA 8 Metals	
CI, F, B, NO ₂ , NO ₃ , PO ₄ , SO ₄	Y
8260 (VOA)	
8270 (Semi-VOA)	
Total Coliform (Present/Absent)	

Remarks: P.M. Tom Long
AFE# N.53447
SAD



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

July 01, 2021

Kyle Summers

Ensolum

606 S Rio Grande Ste A

Aztec, NM 87410

TEL: (903) 821-5603

FAX

RE: Lateral K-54

OrderNo.: 2106E84

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/29/2021 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,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2106E84

Date Reported: 7/1/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Ensolum

Client Sample ID: S-19

Project: Lateral K-54

Collection Date: 6/28/2021 11:00:00 AM

Lab ID: 2106E84-001

Matrix: MEOH (SOIL)

Received Date: 6/29/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	160	60		mg/Kg	20	6/29/2021 10:36:37 AM	60993
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	6/29/2021 2:28:07 PM	60986
Surr: BFB	108	70-130		%Rec	1	6/29/2021 2:28:07 PM	60986
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	6/29/2021 10:24:13 AM	60992
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	6/29/2021 10:24:13 AM	60992
Surr: DNOP	105	70-130		%Rec	1	6/29/2021 10:24:13 AM	60992
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	0.023		mg/Kg	1	6/29/2021 2:28:07 PM	60986
Toluene	ND	0.045		mg/Kg	1	6/29/2021 2:28:07 PM	60986
Ethylbenzene	ND	0.045		mg/Kg	1	6/29/2021 2:28:07 PM	60986
Xylenes, Total	ND	0.091		mg/Kg	1	6/29/2021 2:28:07 PM	60986
Surr: 1,2-Dichloroethane-d4	107	70-130		%Rec	1	6/29/2021 2:28:07 PM	60986
Surr: 4-Bromofluorobenzene	112	70-130		%Rec	1	6/29/2021 2:28:07 PM	60986
Surr: Dibromofluoromethane	107	70-130		%Rec	1	6/29/2021 2:28:07 PM	60986
Surr: Toluene-d8	99.3	70-130		%Rec	1	6/29/2021 2:28:07 PM	60986

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

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

Analytical Report

Lab Order **2106E84**

Date Reported: 7/1/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Ensolum

Client Sample ID: S-20

Project: Lateral K-54

Collection Date: 6/28/2021 11:05:00 AM

Lab ID: 2106E84-002

Matrix: MEOH (SOIL)

Received Date: 6/29/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: VP
Chloride	160	60		mg/Kg	20	6/29/2021 10:49:01 AM	60993
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	6/29/2021 2:00:56 PM	60986
Surr: BFB	102	70-130		%Rec	1	6/29/2021 2:00:56 PM	60986
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: SB
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/29/2021 10:36:26 AM	60992
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/29/2021 10:36:26 AM	60992
Surr: DNOP	93.9	70-130		%Rec	1	6/29/2021 10:36:26 AM	60992
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	0.019		mg/Kg	1	6/29/2021 2:00:56 PM	60986
Toluene	ND	0.037		mg/Kg	1	6/29/2021 2:00:56 PM	60986
Ethylbenzene	ND	0.037		mg/Kg	1	6/29/2021 2:00:56 PM	60986
Xylenes, Total	ND	0.075		mg/Kg	1	6/29/2021 2:00:56 PM	60986
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	6/29/2021 2:00:56 PM	60986
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	6/29/2021 2:00:56 PM	60986
Surr: Dibromofluoromethane	103	70-130		%Rec	1	6/29/2021 2:00:56 PM	60986
Surr: Toluene-d8	99.5	70-130		%Rec	1	6/29/2021 2:00:56 PM	60986

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106E84

01-Jul-21

Client: Ensolum
Project: Lateral K-54

Sample ID: MB-60993	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 60993	RunNo: 79428								
Prep Date: 6/29/2021	Analysis Date: 6/29/2021	SeqNo: 2792934	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-60993	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 60993	RunNo: 79428								
Prep Date: 6/29/2021	Analysis Date: 6/29/2021	SeqNo: 2792935	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.7	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106E84

01-Jul-21

Client: Ensolum
Project: Lateral K-54

Sample ID: MB-60992	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 60992	RunNo: 79437								
Prep Date: 6/29/2021	Analysis Date: 6/29/2021	SeqNo: 2792470			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	11		10.00		109	70	130			

Sample ID: LCS-60992	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 60992	RunNo: 79437								
Prep Date: 6/29/2021	Analysis Date: 6/29/2021	SeqNo: 2792471			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.4	68.9	141			
Surr: DNOP	5.4		5.000		108	70	130			

Sample ID: 2106E84-001AMS	SampType: MS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: S-19	Batch ID: 60992	RunNo: 79437								
Prep Date: 6/29/2021	Analysis Date: 6/29/2021	SeqNo: 2792474			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	9.8	49.21	8.029	79.8	15	184			
Surr: DNOP	4.7		4.921		96.1	70	130			

Sample ID: 2106E84-001AMSD	SampType: MSD	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: S-19	Batch ID: 60992	RunNo: 79437								
Prep Date: 6/29/2021	Analysis Date: 6/29/2021	SeqNo: 2792475			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.1	45.66	8.029	78.1	15	184	7.98	23.9	
Surr: DNOP	4.6		4.566		100	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106E84

01-Jul-21

Client: Ensolum
Project: Lateral K-54

Sample ID: ics-60986	SampType: LCS	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: LCSS	Batch ID: 60986	RunNo: 79445								
Prep Date: 6/28/2021	Analysis Date: 6/29/2021	SeqNo: 2793649	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	109	70	130			
Toluene	1.0	0.050	1.000	0	105	70	130			
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		107	70	130			
Surr: 4-Bromofluorobenzene	0.56		0.5000		112	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		106	70	130			
Surr: Toluene-d8	0.47		0.5000		94.9	70	130			

Sample ID: mb-60986	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 60986	RunNo: 79445								
Prep Date: 6/28/2021	Analysis Date: 6/29/2021	SeqNo: 2793650	Units: mg/Kg							
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: 1,2-Dichloroethane-d4	0.52		0.5000		104	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		107	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.48		0.5000		95.9	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2106E84

01-Jul-21

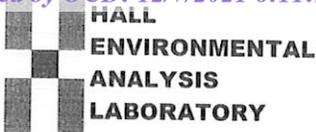
Client: Ensolum
Project: Lateral K-54

Sample ID: LCS-60986	SampType: LCS	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: LCSS	Batch ID: 60986	RunNo: 79445								
Prep Date: 6/28/2021	Analysis Date: 6/29/2021	SeqNo: 2793696	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.0	70	130			
Surr: BFB	520		500.0		104	70	130			

Sample ID: mb-60986	SampType: MBLK	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: PBS	Batch ID: 60986	RunNo: 79445								
Prep Date: 6/28/2021	Analysis Date: 6/29/2021	SeqNo: 2793728	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	530		500.0		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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- 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 Number: 2106E84 RcptNo: 1

Received By: Juan Rojas 6/29/2021 8:00:00 AM

[Signature]

Completed By: Sean Livingston 6/29/2021 8:12:30 AM

[Signature]

Reviewed By: JR 6/29/21

Chain of Custody

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

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [] NA []
4. Were all samples received at a temperature of >0° C to 6.0° C? Yes [checked] No [] NA []
5. Sample(s) in proper container(s)? Yes [checked] No []
6. Sufficient sample volume for indicated test(s)? Yes [checked] No []
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No []
8. Was preservative added to bottles? Yes [] No [checked] NA []
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [] No [] NA [checked]
10. Were any sample containers received broken? Yes [] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No []
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No []
13. Is it clear what analyses were requested? Yes [checked] No []
14. Were all holding times able to be met? Yes [checked] No []

of preserved bottles checked for pH: (<2 or >12 unless noted) Adjusted? Checked by: T.C. 6-29-21

Special Handling (if applicable)

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

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

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 2.5, Good, [], [], []

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS
 Action 65287

CONDITIONS

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 65287
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	1/6/2022