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)* **nAPP2208336723**
Contact mailing address: **614 Reilly Ave, Farmington, NM 87401**	

Location of Release Source

Latitude **36.323769** Longitude **-107.532816** *(NAD 83 in decimal degrees to 5 decimal places)*

Site Name **Lateral 2C-116**	Site Type **Natural Gas Gathering Pipeline**
Date Release Discovered: **03/24/2022**	Serial Number *(if applicable)*: **N/A**

Unit Letter	Section	Township	Range	County
M	**12**	**24N**	**7W**	**Rio Arriba**

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name*: *BLM*)

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☒ Condensate	Volume Released (bbls): **10-15 BBLS**	Volume Recovered (bbls): **None**
☒ Natural Gas	Volume Released (Mcf): **6.5 MCF**	Volume Recovered (Mcf): **None**
☐ Other (describe)	Volume/Weight Released (provide units):	Volume/Weight Recovered (provide units)

Cause of Release: : On March 16, 2022, Enterprise had a release of natural gas and condensate from the Lateral 2C-116 pipeline. The pipeline was isolated, depressurized, locked and tagged out. No residents were affected. No washes were affected. No emergency services responded. An estimated 1-2 barrels of condensate was released to the ground surface. Enterprise began repairs and remediation on March 24, 2022 and determined that this release was reportable per NMOCD regulation due to the volume of impacted subsurface soil. The final excavation dimensions measured approximately 43 feet long by 33 feet wide by 12 feet deep. A total of 650 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: Thomas Long Date: 06-13-2023

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: Nelson Velez Date: 06/13/2023

Printed Name: Nelson Velez Title: Environmental Specialist - Adv

ENSOLUM

CLOSURE REPORT

Property:

Lateral 2C-116 (3/24/22)
Unit Letter M, S12 T24N R7W
Rio Arriba County, New Mexico

New Mexico EMNRD OCD Incident ID No. NAPP2208336723

June 28, 2022
Ensolum Project No. 05A1226189

Prepared for:

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

Prepared by:

Landon Daniell
Staff Geologist

Kyle Summers
Senior Project Manager

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LIST OF APPENDICES

Appendix G: Laboratory Data Sheets & Chain of Custody Documentation

1.0 INTRODUCTION

1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
Site Name:	Lateral 2C-116 (3/24/22) (Site)
Incident ID	NAPP2208336723
Location:	36.323769° North, 107.532816° West Unit Letter M, Section 12, Township 24 North, Range 7 West Rio Arriba County, New Mexico
Property:	United States Bureau of Land Management (BLM)
Regulatory:	New Mexico (NM) Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On March 17, 2022, Enterprise confirmed a leak on the Lateral 2C-116 pipeline and subsequently isolated and locked the pipeline out of service. On March 23, 2022, Enterprise initiated activities to repair the pipeline and remediate petroleum hydrocarbon impact. On March 24, 2022, Enterprise determined the release was "reportable" due to the estimated volume of impacted soil. The NM EMNRD OCD was subsequently 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 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 bullets are provided in **Appendix B**.

- The OSE tracks the usage and assignment of water rights and water well installations and records this information in the Water Rights Reporting System (WRRS) database. Water wells and other points of diversion (PODs) are each assigned POD numbers in the database (which is searchable and includes an interactive map). No PODs were identified in the same Public Land Survey System (PLSS) section as the Site. Three PODs (SJ-00681-2, SJ-00681-4, and SJ-00681-16) were identified in adjacent sections. The only records available for these PODs are *Declaration of Owner of Underground Water Right* forms and no depth to water is listed. The closest POD (SJ-00681-2) is located approximately 0.96 miles north of the Site and is approximately 291 feet lower in elevation than the Site (**Figure A**, **Appendix B**).

- No cathodic protection wells (CPWs) were identified in the same or adjacent PLSS sections in the NM EMNRD OCD imaging database (**Figure B**, **Appendix B**).

- The Site is not located within 300 feet of a NM EMNRD OCD-defined continuously flowing watercourse or significant watercourse (**Figure C**, **Appendix B**).
- The Site is not located within 200 feet of a lakebed, sinkhole, or playa lake.
- The Site is not located within 300 feet of a permanent residence, school, hospital, institution, or church (**Figure D**, **Appendix B**).
- No springs, or private domestic fresh water wells used by less than five households for domestic or stock watering purposes were identified within 500 feet of the Site (**Figure E**, **Appendix B**).
- No fresh water wells or springs were identified within 1,000 feet of the Site (**Figure E**, **Appendix B**).
- The Site is not located within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to New Mexico Statutes Annotated (NMSA) 1978, Section 3-27-3.
- Based on information identified in the U.S. Fish & Wildlife Service National Wetlands Inventory Wetlands Mapper, the Site is not 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 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 Site is not within a 100-year floodplain (**Figure H**, **Appendix B**).

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

Closure Criteria for Soils Impacted by a Release (Tier II)		
Constituent[1]	Method	Limit
Chloride	EPA 300.0 or SM4500 Cl B	10,000 mg/kg
TPH (GRO+DRO+MRO)[2]	EPA SW-846 Method 8015	2,500 mg/kg
TPH (GRO+DRO)	EPA SW-846 Method 8015	1,000 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 kilogram (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).

The closure criteria (reclamation requirements of NMAC 19.15.29.13(D)(1)) for the upper four feet of soils 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 March 23, 2022, Enterprise initiated activities to repair the pipeline and remediate petroleum hydrocarbon impact resulting from the release. During the remediation and corrective action activities, OFT Construction (OFT) provided heavy equipment and labor support, while Ensolum provided environmental consulting support.

The final excavation measured approximately 43 feet long and 33 feet wide at the maximum extents. The maximum depth of the excavation measured approximately 12 feet bgs. The flow path excavation measured approximately 224 feet long and 8 feet wide at the maximum extents. The lithology encountered during the completion of remediation activities consisted primarily of sandy silt underlain by sandstone.

Approximately 650 cubic yards (yd^3) of petroleum hydrocarbon affected soils and 15 barrels (bbls) of hydro-excavation soil cuttings and water were transported to the Envirotech, Inc., (Envirotech) landfarm near Hilltop, NM for disposal/remediation. The executed C-138 solid waste acceptance form is provided in **Appendix C**. The excavation was backfilled with imported fill and was compacted and then contoured to the surrounding topography.

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

4.0 SOIL SAMPLING PROGRAM

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

Ensolum's soil sampling program included the collection of eighteen composite soil samples (S-1 through S-18) from the excavation for laboratory analysis. The composite samples were comprised of five aliquots each and represent an estimated 200 square foot (ft^2) sample area per guidelines outlined in Section D of 19.15.29.12 NMAC. Hand tools or the excavator bucket were utilized to obtain fresh aliquots from each area of the excavation. Regulatory correspondence is provided in **Appendix E**.

First Sampling Event
On March 25, 2022, 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 samples S-1 (10') and S-3 (1.5'-2') were collected from floor areas of the excavation. Composite soil sample S-2 (0'-4') was collected from a wall of the excavation. Subsequent soil analytical results identified COC concentrations that exceeded the NM EMNRD OCD closure criteria for composite soil samples S-1 and S-

2. In response to the exceedances the excavation was extended. Impacted soil associated with samples S-1 and S-2 was removed by excavation and transported to the landfarm for disposal/remediation.

Second Sampling Event
On April 1, 2022, the second 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 sample S-4 (12') was collected from the floor of the excavation. Composite soil samples S-5 (4'-12'), S-6 (4'-12'), S-7 (4'-12'), S-8 (0'-4'), and S-10 (0'-4) were collected from walls of the excavation. Composite soil sample S-9 (0'-4') was collected from the sloped eastern end-wall.

Third Sampling Event
On April 5, 2022, the third 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 samples S-11 (10') and S-13 (4') were collected from floors of the excavation. Composite soil samples S-14 (4'-10'), S-15 (4'-10'), S-16 (0'-4'), S-17 (0'-4') and S-18 (0'-4') were collected from walls of the excavation. Composite soil sample S-12 (4'-10') was collected from the sloped western end-wall of the lower excavation.

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

5.0 SOIL LABORATORY ANALYTICAL METHODS

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

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

6.0 SOIL DATA EVALUATION

Ensolum compared the benzene, BTEX, TPH, and chloride laboratory analytical results or laboratory practical quantitation limits (PQLs) / reporting limits (RLs) associated with the composite soil samples (S-3 through S-18) to the applicable NM EMNRD OCD closure criteria. The soils associated with composite soil samples S-1 and S-2 were removed from the Site, and therefore, are not included in the following discussion.

- The laboratory analytical results for composite soil samples representing soils remaining at the Site indicate benzene is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the applicable NM EMNRD OCD criteria of 10 mg/kg.

- The laboratory analytical results for the composite soil samples S-4, S-6, and S-14 indicate total BTEX concentrations of 0.51 mg/kg, 0.55 mg/kg, and 0.17 mg/kg, respectively, 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 indicate that total BTEX is not present in 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-3, S-8, S-9, S-10, S-13, S-16, S-17, and S-18 indicate combined TPH GRO/DRO/MRO concentrations ranging from 9.8 mg/kg (S-8) to 28 mg/kg (S-16), which are less than the Tier I NM EMNRD OCD closure criteria of 100 mg/kg.

- The laboratory analytical results for composite soil samples S-4 through S-7, S-11, S-12, S-14, and S-15 indicate combined TPH GRO/DRO concentrations ranging from 16 mg/kg (S-12) to 390 mg/kg (S-6), which are less than the Tier II NM EMNRD OCD closure criteria of 1,000 mg/kg.

- The laboratory analytical results for composite soil samples S-4 through S-7, S-11, S-12, S-14, and S-15 indicate combined TPH GRO/DRO/MRO concentrations ranging from 16 mg/kg (S-12) to 520 mg/kg (S-6), which are less than the Tier II NM EMNRD OCD closure criteria of 2,500 mg/kg.

- The laboratory analytical results for composite soil samples S-3 through S-18 indicate chloride concentrations ranging from below the PQL/RL to 200 mg/kg (S-6), which are less than the applicable NM EMNRD OCD closure criteria of 600 mg/kg (Tier I) or 10,000 mg/kg (Tier II) (depending on the depth of the represented soil).

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

7.0 RECLAMATION AND REVEGETATION

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

8.0 FINDINGS AND RECOMMENDATION

- Eighteen composite soil samples were collected from the Site. Based on laboratory analytical results, no benzene, BTEX, chloride, or combined TPH GRO/DRO or TPH GRO/DRO/MRO exceedances were identified in the soils remaining at the Site.

- Approximately 650 yd^3 of petroleum hydrocarbon affected soils and 15 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 then contoured to the surrounding topography.

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

9.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

9.1 Standard of Care

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

9.2 Limitations

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

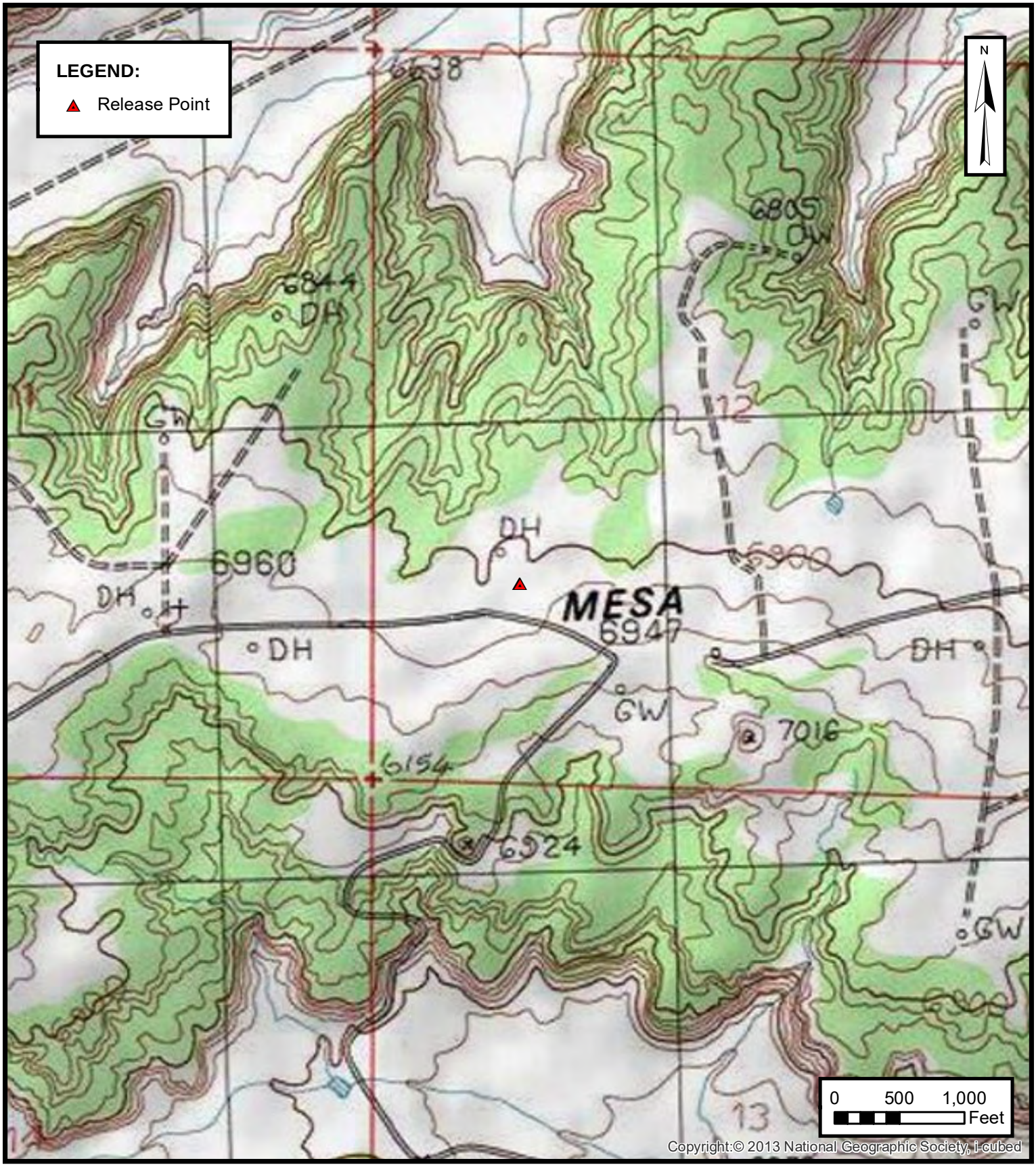
9.3 Reliance

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

ENSOLUM

APPENDIX A

Figures



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TOPOGRAPHIC MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-116 (3/24/22)
Unit Letter M, S12 T24N R7W, Rio Arriba County, New Mexico
36.323769° N, 107.532816° W

PROJECT NUMBER: 05A1226189

FIGURE
1

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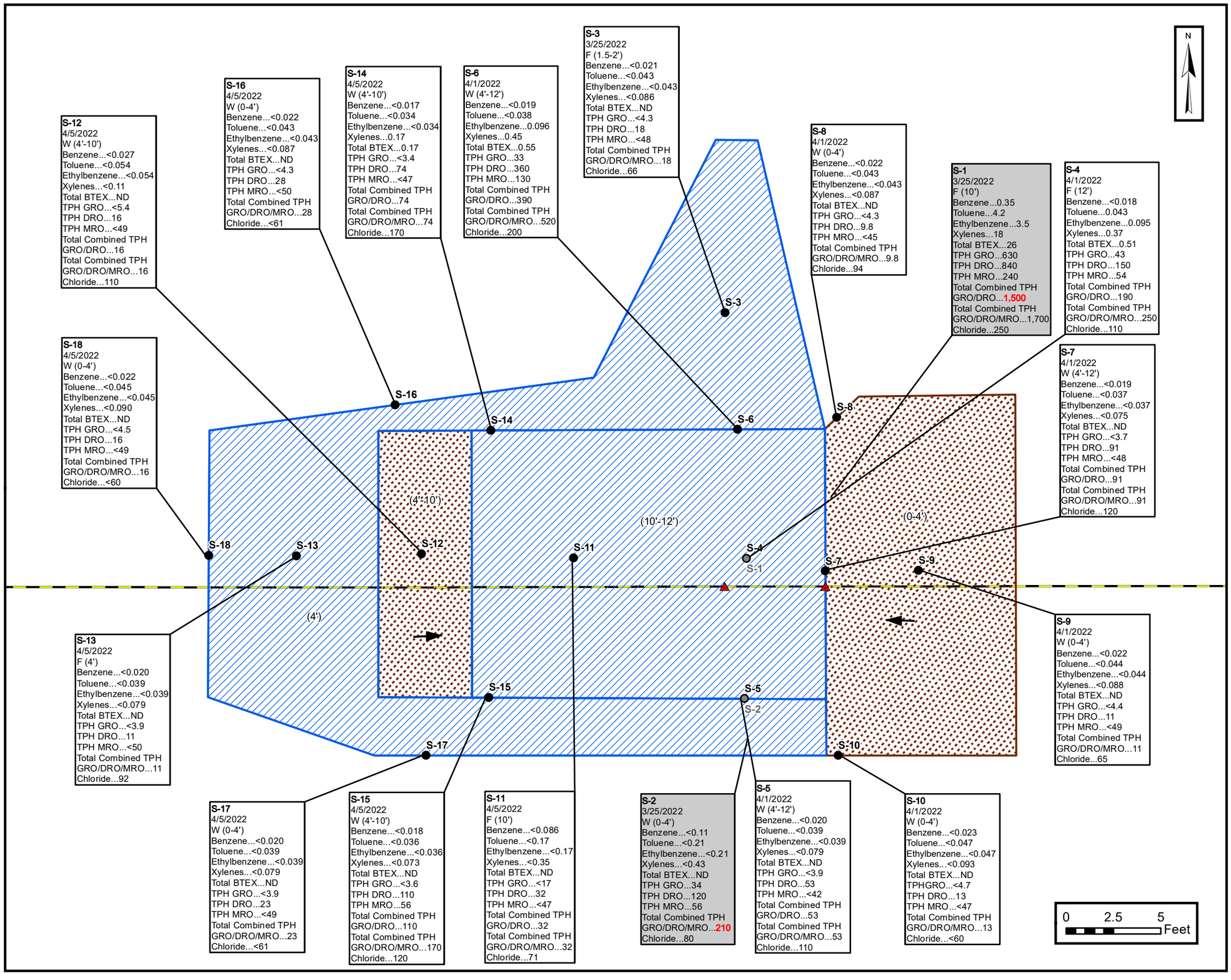
SITE VICINITY MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-116 (3/24/22)
Unit Letter M, S12 T24N R7W, Rio Arriba County, New Mexico
36.323769° N, 107.532816° W

PROJECT NUMBER: 05A1226189

FIGURE
2



LEGEND:

- Release Point
- Composite Soil Sample Location
- Composite Soil Sample Location Removed by Excavation
- Extent of Excavation Floor
- Sloped Sidewall
- Approximate Pipeline Location

NOTES:
F - Floor Sample
W - Wall Sample
All Concentrations Are in mg/Kg.
All Depths Are Listed in Feet BGS.
Analytical callouts in gray denote sampling location removed by excavation.
Concentrations in Red Exceed the Applicable NM EMNRD OCD Closure Criteria.

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SITE MAP WITH SOIL ANALYTICAL RESULTS

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-116 (3/24/22)

Unit Letter M, S12 T24N R7W, Rio Arriba County, New Mexico
36.323769° N, 107.532816° W

FIGURE
3

PROJECT NUMBER: 05A1226189

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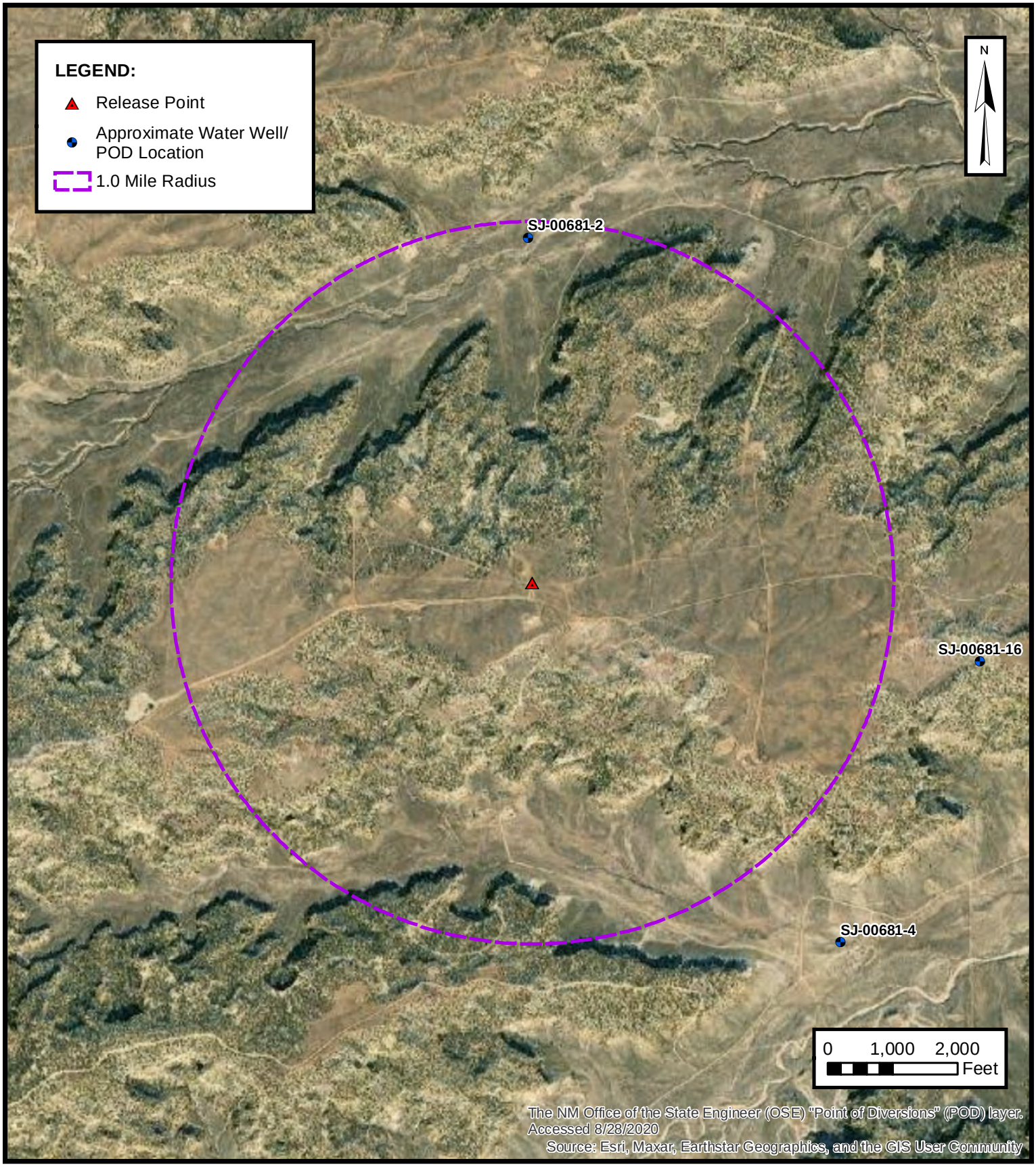
APPENDIX B

Siting Figures and Documentation



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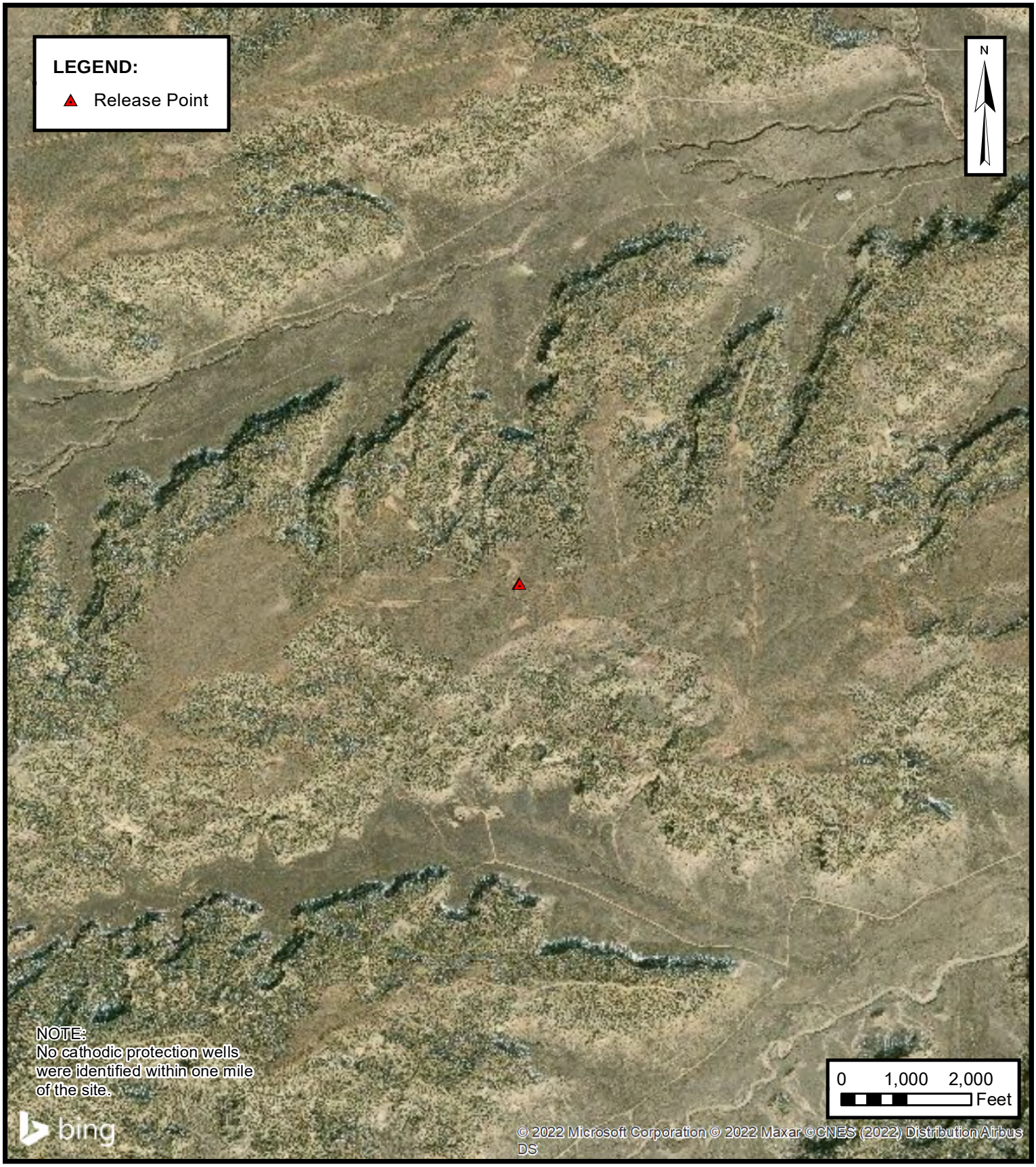
1.0 MILE RADIUS WATER WELL/ POD LOCATION MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-116 (3/24/22)
Unit Letter M, S12 T24N R7W, Rio Arriba County, New Mexico
36.323769° N, 107.532816° W

PROJECT NUMBER: 05A1226189

FIGURE

A



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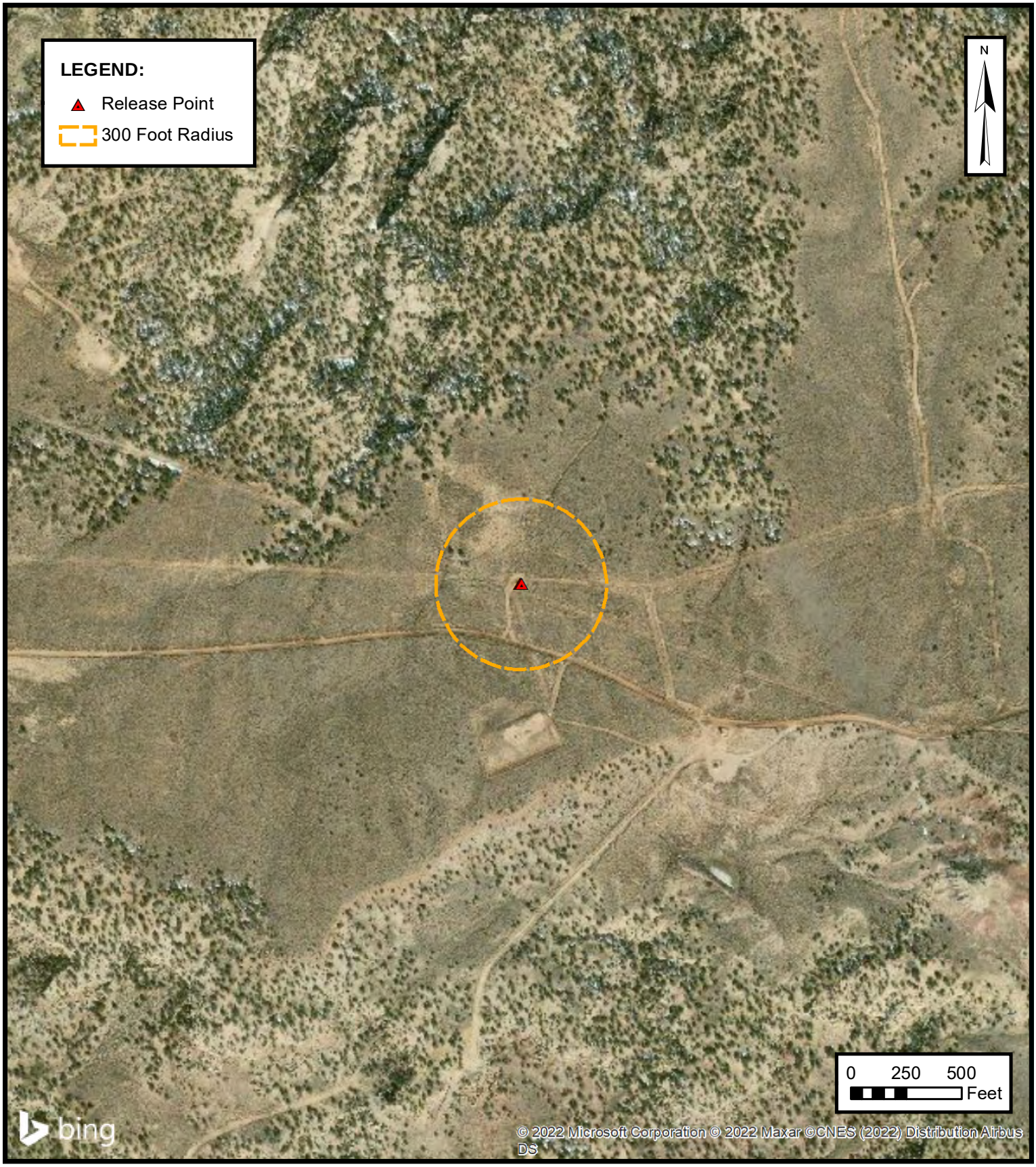
CATHODIC PROTECTION WELL RECORDED DEPTH TO WATER

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-116 (3/24/22)
Unit Letter M, S12 T24N R7W, Rio Arriba County, New Mexico
36.323769° N, 107.532816° W

PROJECT NUMBER: 05A1226189

FIGURE

B



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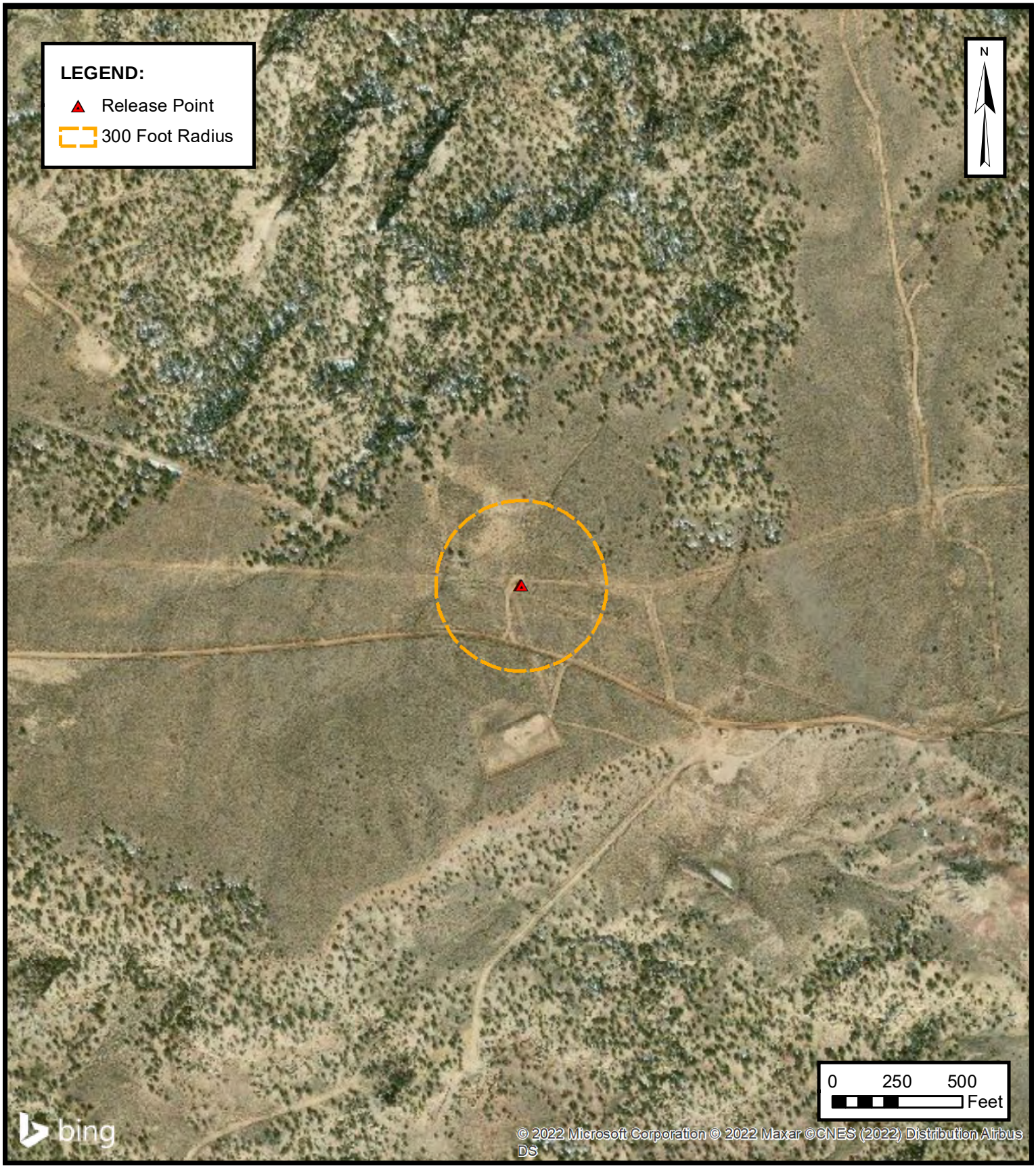
300 FOOT RADIUS
WATERCOURSE AND DRAINAGE IDENTIFICATION
ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-116 (3/24/22)
Unit Letter M, S12 T24N R7W, Rio Arriba County, New Mexico
36.323769° N, 107.532816° W

PROJECT NUMBER: 05A1226189

FIGURE
C



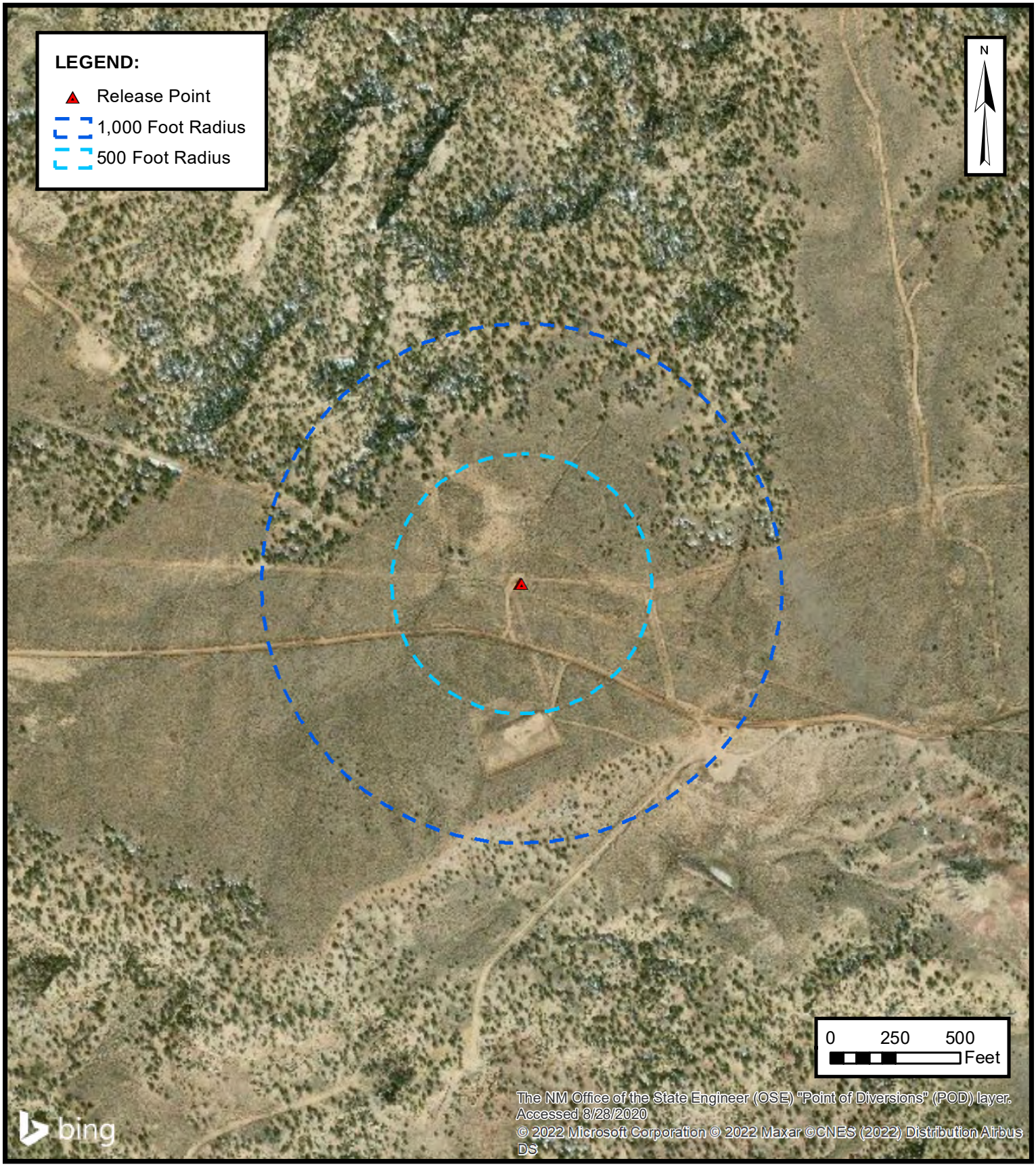
ENSOLUM
Environmental & Hydrogeologic Consultants

300 FOOT RADIUS
OCCUPIED STRUCTURE IDENTIFICATION

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-116 (3/24/22)
Unit Letter M, S12 T24N R7W, Rio Arriba County, New Mexico
36.323769° N, 107.532816° W

PROJECT NUMBER: 05A1226189

FIGURE
D



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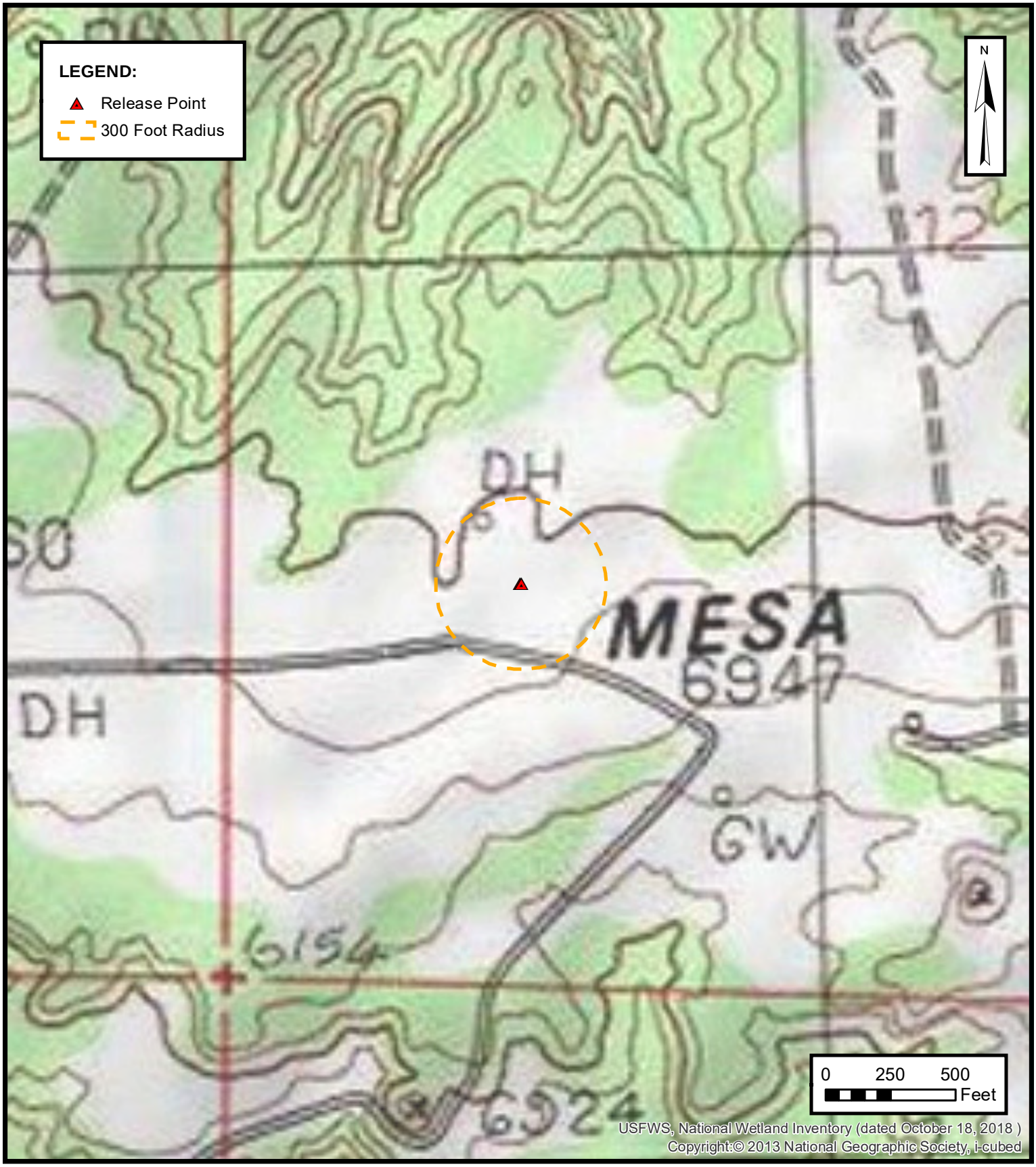
WATER WELL AND NATURAL SPRING LOCATION

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-116 (3/24/22)
Unit Letter M, S12 T24N R7W, Rio Arriba County, New Mexico
36.323769° N, 107.532816° W

PROJECT NUMBER: 05A1226189

FIGURE
E



ENSOLUM
Environmental & Hydrogeologic Consultants

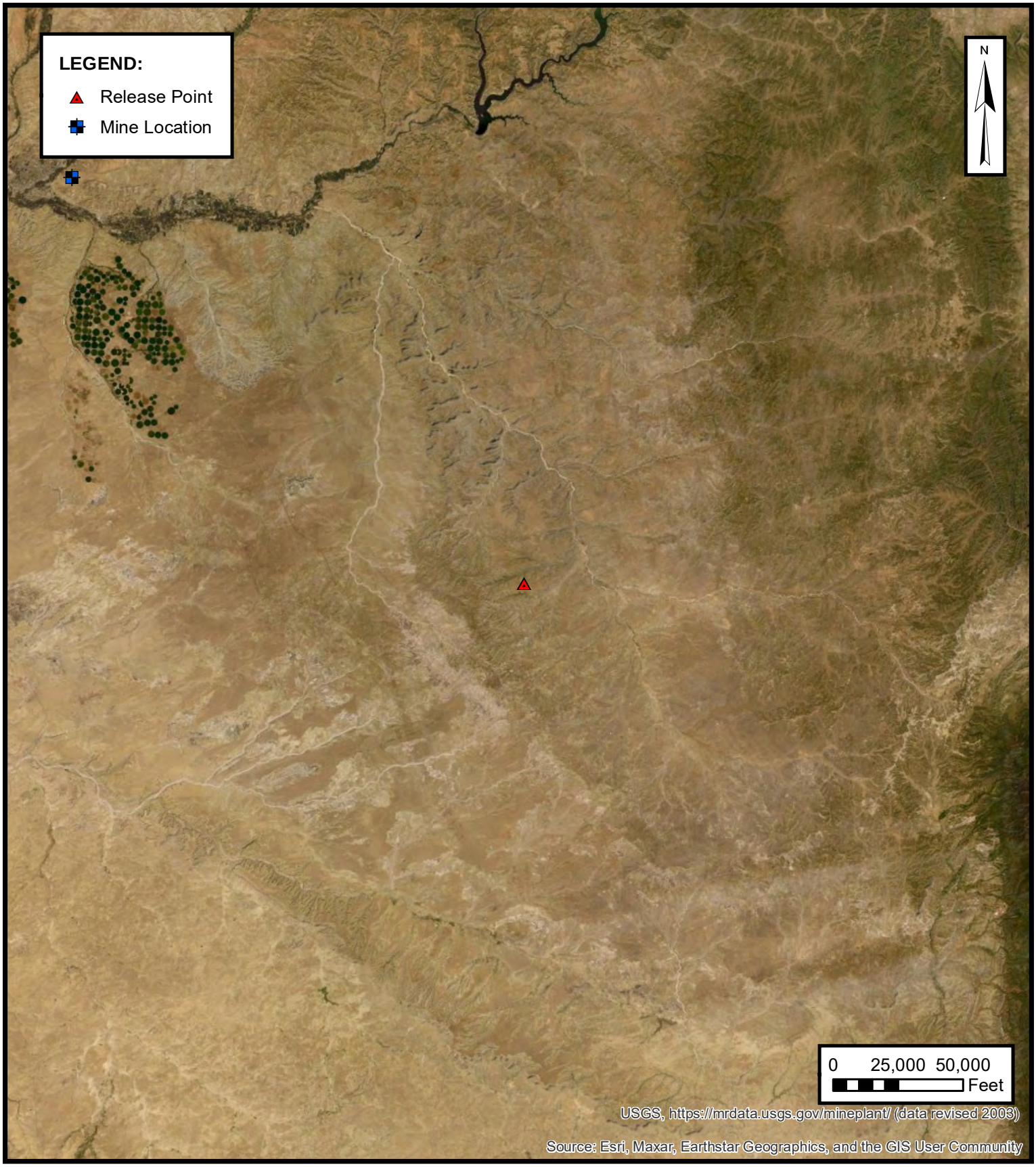
WETLANDS

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-116 (3/24/22)
Unit Letter M, S12 T24N R7W, Rio Arriba County, New Mexico
36.323769° N, 107.532816° W

PROJECT NUMBER: 05A1226189

FIGURE

F



ENSOLUM
Environmental & Hydrogeologic Consultants

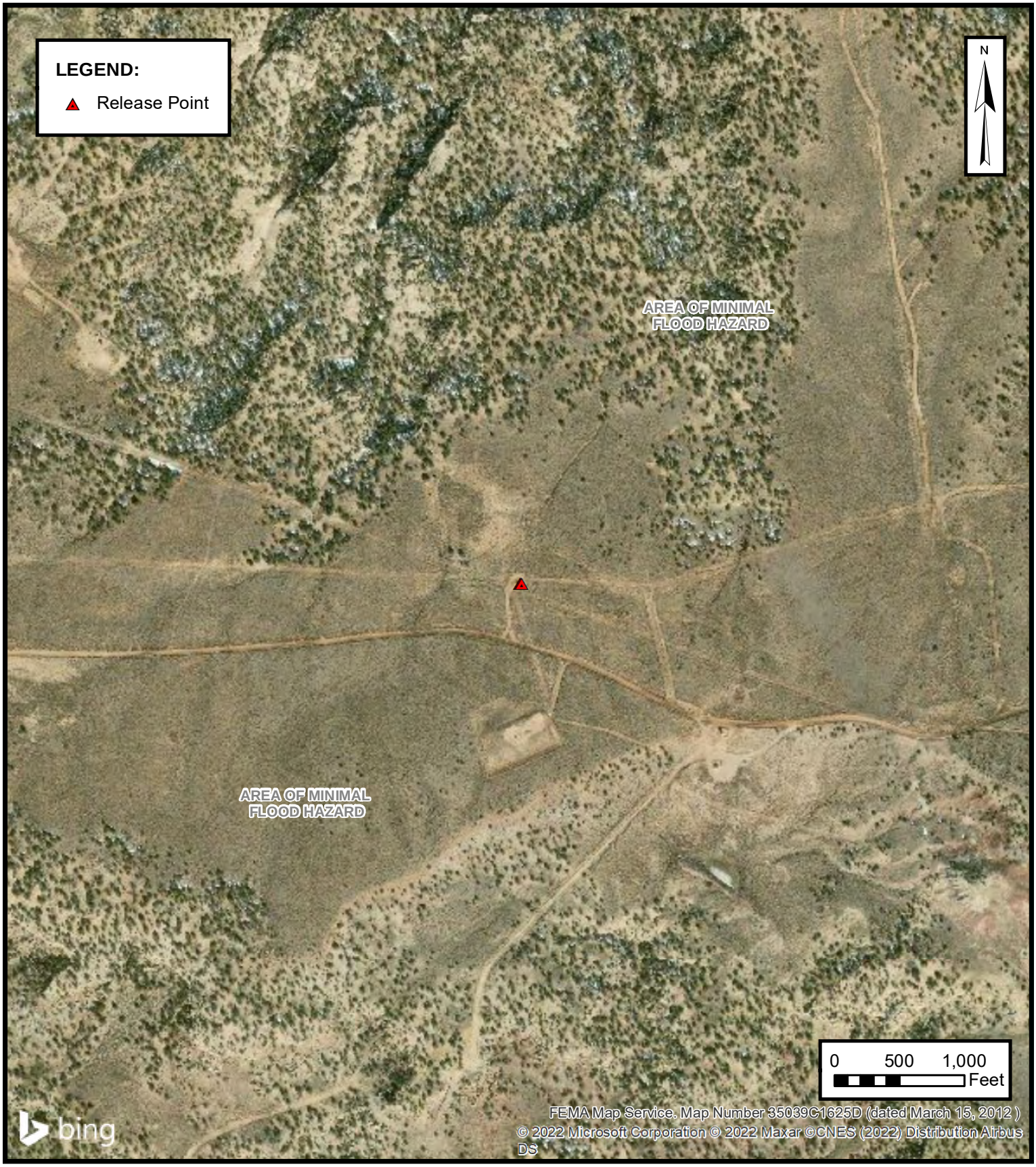
MINES, MILLS AND QUARRIES

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-116 (3/24/22)
Unit Letter M, S12 T24N R7W, Rio Arriba County, New Mexico
36.323769° N, 107.532816° W

PROJECT NUMBER: 05A1226189

FIGURE

G



ENSOLUM
Environmental & Hydrogeologic Consultants

100-YEAR FLOOD PLAIN MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-116 (3/24/22)
Unit Letter M, S12 T24N R7W, Rio Arriba County, New Mexico
36.323769° N, 107.532816° W

PROJECT NUMBER: 05A1226189

FIGURE
H

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

No records found.

PLSS Search:

Section(s): 12, 1, 2, 11, 14, 13 **Township:** 24N **Range:** 07W

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

No records found.

PLSS Search:

Section(s): 7, 6, 18 **Township:** 24N **Range:** 06W

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum) (R=POD has been replaced and no longer serves this file, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	q q q 6416 4	Sec	Tws	Rng	X	Y
SJ 00681 2	SJ	STK	4.839	HOMER C. BERRY	RA	SJ 00681 2					2 3 3	01	24N	07W	272654	4024369*

Record Count: 1

PLSS Search:

Section(s): 12, 1, 2, 11, 14, 13 **Township:** 24N **Range:** 07W

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	q 6416	q 4	q	Sec	Tws	Rng	X	Y
SJ 00681 16	SJ	STK	24.195	HOMER C. BERRY	RA	SJ 00681 16					4	4	3	07	24N	06W	274606	4022441*
SJ 00681 4	SJ	STK	9.678	HOMER C. BERRY	RA	SJ 00681 4					3	1	3	18	24N	06W	273955	4021213*

Record Count: 2

PLSS Search:

Section(s): 6, 7, 18 **Township:** 24N **Range:** 06W

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

ENSOLUM

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

2. Originating Site:
Lateral 2C-116

AFE: N58968
PM: Dwayne Dixon
Pay Key: RB21200

2. Location of Material (Street Address, City, State or ULSTR):
UL M Section 12 T24N R7W; 36.323769, -107.532816

March/April 2022

4. Source and Description of Waste:
Source: Hydrocarbon contaminated soil/sludge associated with remediation activities from a natural gas pipeline release.
Description: Hydrocarbon contaminated soil/sludge associated with remediation activities from a natural gas pipeline release.
Estimated Volume 50 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 1250/15 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 3-22-2022, representative for Enterprise Products Operating authorize to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

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

5. Transporter: TBD Riley, OFT, Rosenbaum, Stan Horn

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: **Envirotech, Inc. Soil Remediation Facility * Permit #: NM01-0011**
Address of Facility: **Hill Top, 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: 3/22/22

SIGNATURE: _____ TELEPHONE NO.: 505-632-0615
Surface Waste Management Facility Authorized Agent

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APPENDIX D

Photographic Documentation

SITE PHOTOGRAPHS

Closure Report
Enterprise Field Services, LLC
Lateral 2C-116 (3/24/22)
Ensolum Project No. 05A1226189

ENSOLUM

Photograph 1 Photograph Description: View of the in-process excavation activities.	
Photograph 2 Photograph Description: View of the in-process excavation activities.	
Photograph 3 Photograph Description: View of the in-process excavation activities.	

SITE PHOTOGRAPHS

Closure Report
Enterprise Field Services, LLC
Lateral 2C-116 (3/24/22)
Ensolum Project No. 05A1226189

ENSOLUM

Photograph 4 Photograph Description: View of the in-process excavation activities.	
Photograph 5 Photograph Description: View of the final excavation.	
Photograph 6 Photograph Description: View of the final excavation.	

SITE PHOTOGRAPHS

Closure Report
Enterprise Field Services, LLC
Lateral 2C-116 (3/24/22)
Ensolum Project No. 05A1226189

ENSOLUM

Photograph 7 Photograph Description: View of the final excavation.	
Photograph 8 Photograph Description: View of the site after initial restoration.	
Photograph 9 Photograph Description: View of the site after initial restoration.	

ENSOLUM

APPENDIX E

Regulatory Correspondence

From: Velez, Nelson, EMNRD
To: Long, Thomas; rjoyner@blm.gov
Cc: Stone, Brian
Subject: RE: [EXTERNAL] Lateral 2C-116 - UL M Section 12 T24N R7W; 36.323769, -107.532816; Incident # nAPP2208336723
Date: Monday, April 4, 2022 2:42:31 PM

[Use caution with links/attachments]

Tom,

Thank you for the notice. If an OCD representative is not on-site on the date &/or time given, please sample per 19.15.29 NMAC. For whatever reason, if the sampling timeframe is altered, please notify the OCD as soon as possible so we may adjust our schedule(s). Failure to notify the OCD of this change may result in the closure sample(s) not being accepted.

Please keep a copy of this communication for inclusion within the final closure report submittal.

The OCD requires a copy of all correspondence relative to remedial activities be included in all proposal and/or final closure reports.

Correspondence required to be included in reports may include, but not limited to, time extension requests, liner inspection notifications, sample event notifications, spill/release/fire notifications, and variance requests.

Thanks again.

Regards

Nelson Velez • Environmental Specialist - Adv
Environmental Bureau | EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87410
(505) 469-6146 | nelson.velez@state.nm.us

Hrs.: 7:00–11:00 am & 12:00–3:30 pm Mon.–Thur.
7:00-11:00 am & 12:00-4:00 pm Fri.

From: Long, Thomas <tjlong@eprod.com>
Sent: Monday, April 4, 2022 12:49 PM
To: Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>; rjoyner@blm.gov
Cc: Stone, Brian <bmstone@eprod.com>
Subject: RE: [EXTERNAL] Lateral 2C-116 - UL M Section 12 T24N R7W; 36.323769, -107.532816; Incident # nAPP2208336723

Nelson/Ryan,

This email is a notification that Enterprise will be collecting soil samples for laboratory analysis at the Lateral 2C-116 excavation on Tuesday April 5, 2022 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: Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>
Sent: Thursday, March 31, 2022 7:33 AM
To: Long, Thomas <tjlong@eprod.com>; rjoyner@blm.gov
Cc: Stone, Brian <bmstone@eprod.com>
Subject: RE: [EXTERNAL] Lateral 2C-116 - UL M Section 12 T24N R7W; 36.323769, -107.532816; Incident # nAPP2208336723

[Use caution with links/attachments]
Tom,

Thank you for the notice. If an OCD representative is not on-site on the date &/or time given, please proceed with your sampling. For whatever reason the sample collection timeframe is altered, please notify the OCD as soon as possible so we may adjust our schedule(s). Failure to notify the OCD of the rescheduling may result in the sample(s) not being accepted.

Please keep a copy of this communication for inclusion within the appropriate reporting documentation.

The OCD requires a copy of all correspondence related to remedial activities be included in all proposals, weekly/monthly/quarterly/semi-annual/annual, or final closure reports. Correspondence reporting requirements may include, but not limited to, time extension requests, sample event notifications, and variance requests.

If you have any questions, please contact me via email at your convenience.

Thanks again

Regards,

Nelson Velez • Environmental Specialist - Adv
Environmental Bureau | EMNRD - Oil Conservation Division

1000 Rio Brazos Road | Aztec, NM 87410
(505) 469-6146 | nelson.velez@state.nm.us

Hrs.: 7:00–11:00 am & 12:00–3:30 pm Mon.–Thur.
7:00-11:00 am & 12:00-4:00 pm Fri.

From: Long, Thomas <tjlong@eprod.com>
Sent: Wednesday, March 30, 2022 4:10 PM
To: Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>; rjoyner@blm.gov
Cc: Stone, Brian <bmstone@eprod.com>
Subject: FW: [EXTERNAL] Lateral 2C-116 - UL M Section 12 T24N R7W; 36.323769, -107.532816; Incident # nAPP2208336723

Nelson/Ryan,

This email is a notification that Enterprise will be collecting soil samples for laboratory analysis at the Lateral 2C-116 excavation on Friday April 1, 2022 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: Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>
Sent: Thursday, March 24, 2022 10:52 AM
To: Long, Thomas <tjlong@eprod.com>; rjoyner@blm.gov
Cc: Stone, Brian <bmstone@eprod.com>
Subject: RE: [EXTERNAL] Lateral 2C-116 - UL M Section 12 T24N R7W; 36.323769, -107.532816; Incident # nAPP2208336723

[Use caution with links/attachments]

Thank you for the notice. If an OCD representative is not on-site on the date and time given, please sample per 19.15.29 NMAC. If for whatever reason the date and/or time have changed, please notify the OCD as soon as possible so we may adjust our schedules. Failure to notify the OCD of date/time changes may result in the closure sample(s) not being accepted.

Please keep a copy of this communication for inclusion within the final closure report submittal.

The OCD requires a copy of all correspondence relative to remedial activities be included in all proposal and/or final closure reports.

Correspondence required to be included in reports may include, but not limited to, time extension requests, liner inspection notifications, sample event notifications, spill/release/fire notifications, and variance requests.

Thanks again.

Nelson Velez ● Environmental Specialist - Adv
Environmental Bureau | EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87410
(505) 469-6146 | nelson.velez@state.nm.us

Hrs.: 7:00–11:00 am & 12:00–3:30 pm Mon.–Thur.
7:00-11:00 am & 12:00-4:00 pm Fri.

From: Long, Thomas <tjlong@eprod.com>
Sent: Thursday, March 24, 2022 10:19 AM
To: Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>; rjoyner@blm.gov
Cc: Stone, Brian <bmstone@eprod.com>
Subject: [EXTERNAL] Lateral 2C-116 - UL M Section 12 T24N R7W; 36.323769, -107.532816; Incident # nAPP2208336723

Nelson/Ryan,

The email is a notification that Enterprise will be collecting soil samples for laboratory analysis at the Lateral 2C-116 excavation tomorrow, March 25, 2022 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

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APPENDIX F

Table 1 – Soil Analytical Summary

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TABLE 1A
Lateral 2C-116 (3/24/22)
SOIL ANALYTICAL SUMMARY (SOIL ZONE: CONTAINS ALIQUOTS FROM < 4 FEET BGS)

Sample I.D.	Date	Sample Type C- Composite G - Grab	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX[1] (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total Combined TPH (GRO/DRO/MRO)[1] (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Division Closure Criteria (Tier I)				**10**	**NE**	**NE**	**NE**	**50**	**NE**	**NE**	**NE**	**100**	**600**
Excavation Composite Soil Samples Removed by Excavation and Transported to the Landfarm for Disposal/Remediation													
S-2	3.25.22	C	0 to 4	<0.11	<0.21	<0.21	<0.43	ND	34	120	56	**210**	80
Excavation Composite Soil Samples													
S-3	3.25.22	C	1.5 to 2	<0.021	<0.043	<0.043	<0.086	ND	<4.3	18	<48	18	66
S-8	4.1.22	C	0 to 4	<0.022	<0.043	<0.043	<0.087	ND	<4.3	9.8	<45	9.8	94
S-9	4.1.22	C	0 to 4	<0.022	<0.044	<0.044	<0.088	ND	<4.4	11	<49	11	65
S-10	4.1.22	C	0 to 4	<0.023	<0.047	<0.047	<0.093	ND	<4.7	13	<47	13	<60
S-13	4.5.22	C	4	<0.020	<0.039	<0.039	<0.079	ND	<3.9	11	<50	11	92
S-16	4.5.22	C	0 to 4	<0.022	<0.043	<0.043	<0.087	ND	<4.3	28	<50	28	<61
S-17	4.5.22	C	0 to 4	<0.020	<0.039	<0.039	<0.079	ND	<3.9	23	<49	23	<61
S-18	4.5.22	C	0 to 4	<0.022	<0.045	<0.045	<0.090	ND	<4.5	16	<49	16	<60

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)

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

ENSOLUM

TABLE 1B
Lateral 2C-116 (3/24/22)
SOIL ANALYTICAL SUMMARY (CONTAINS ONLY ALIQUOTS FROM >4 FEET BGS)

Sample I.D.	Date	Sample Type C- Composite G - Grab	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX[1] (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total Combined TPH (GRO/DRO)[1] (mg/kg)	Total Combined TPH (GRO/DRO/MRO)[1] (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Division Closure Criteria (Tier II)				**10**	**NE**	**NE**	**NE**	**50**	**NE**	**NE**	**NE**	**1,000**	**2,500**	**10,000**
Excavation Composite Soil Samples Removed by Excavation and Transported to the Landfarm for Disposal/Remediation														
S-1	3.25.22	C	10	0.35	4.2	3.5	18	26	630	840	240	**1,500**	1,700	250
Excavation Composite Soil Samples														
S-4	4.1.22	C	12	<0.018	0.043	0.095	0.37	0.51	43	150	54	190	250	110
S-5	4.1.22	C	4 to 12	<0.020	<0.039	<0.039	<0.079	ND	<3.9	53	<42	53	53	110
S-6	4.1.22	C	4 to 12	<0.019	<0.038	0.096	0.45	0.55	33	360	130	390	520	200
S-7	4.1.22	C	4 to 12	<0.019	<0.037	<0.037	<0.075	ND	<3.7	91	<48	91	91	120
S-11	4.5.22	C	10	<0.086	<0.17	<0.17	<0.35	ND	<17	32	<47	32	32	71
S-12	4.5.22	C	4 to 10	<0.027	<0.054	<0.054	<0.11	ND	<5.4	16	<49	16	16	110
S-14	4.5.22	C	4 to 10	<0.017	<0.034	<0.034	0.17	0.17	<3.4	74	<47	74	74	170
S-15	4.5.22	C	4 to 10	<0.018	<0.036	<0.036	<0.073	ND	<3.6	110	56	110	170	120

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)

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

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APPENDIX G

Laboratory Data Sheets & Chain of Custody Documentation

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

March 30, 2022

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

RE: Lateral 2C 116 OrderNo.: 2203E13

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 3 sample(s) on 3/26/2022 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2203E13**
Date Reported: **3/30/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-1
Project: Lateral 2C 116
Collection Date: 3/25/2022 10:00:00 AM
Lab ID: 2203E13-001 **Matrix:** SOIL **Received Date:** 3/26/2022 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	250	60		mg/Kg	20	3/28/2022 1:49:59 PM	66432
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	840	9.7		mg/Kg	1	3/28/2022 11:44:52 AM	66426
Motor Oil Range Organics (MRO)	240	48		mg/Kg	1	3/28/2022 11:44:52 AM	66426
Surr: DNOP	109	51.1-141		%Rec	1	3/28/2022 11:44:52 AM	66426
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**	
Gasoline Range Organics (GRO)	630	20		mg/Kg	5	3/26/2022 3:55:00 PM	A86770
Surr: BFB	352	37.7-212	S	%Rec	5	3/26/2022 3:55:00 PM	A86770
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**	
Benzene	0.35	0.10		mg/Kg	5	3/26/2022 3:55:00 PM	B86770
Toluene	4.2	0.20		mg/Kg	5	3/26/2022 3:55:00 PM	B86770
Ethylbenzene	3.5	0.20		mg/Kg	5	3/26/2022 3:55:00 PM	B86770
Xylenes, Total	18	0.40		mg/Kg	5	3/26/2022 3:55:00 PM	B86770
Surr: 4-Bromofluorobenzene	131	70-130	S	%Rec	5	3/26/2022 3:55:00 PM	B86770

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2203E13**
Date Reported: **3/30/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-2
Project: Lateral 2C 116
Collection Date: 3/25/2022 10:05:00 AM
Lab ID: 2203E13-002
Matrix: SOIL
Received Date: 3/26/2022 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	80	60		mg/Kg	20	3/28/2022 2:02:23 PM	66432
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	120	10		mg/Kg	1	3/28/2022 11:12:45 AM	66426
Motor Oil Range Organics (MRO)	56	50		mg/Kg	1	3/28/2022 11:12:45 AM	66426
Surr: DNOP	101	51.1-141		%Rec	1	3/28/2022 11:12:45 AM	66426
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**	
Gasoline Range Organics (GRO)	34	21		mg/Kg	5	3/26/2022 4:15:00 PM	A86770
Surr: BFB	153	37.7-212		%Rec	5	3/26/2022 4:15:00 PM	A86770
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**	
Benzene	ND	0.11		mg/Kg	5	3/26/2022 4:15:00 PM	B86770
Toluene	ND	0.21		mg/Kg	5	3/26/2022 4:15:00 PM	B86770
Ethylbenzene	ND	0.21		mg/Kg	5	3/26/2022 4:15:00 PM	B86770
Xylenes, Total	ND	0.43		mg/Kg	5	3/26/2022 4:15:00 PM	B86770
Surr: 4-Bromofluorobenzene	90.2	70-130		%Rec	5	3/26/2022 4:15:00 PM	B86770

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2203E13**
Date Reported: **3/30/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-3
Project: Lateral 2C 116
Collection Date: 3/25/2022 10:10:00 AM
Lab ID: 2203E13-003
Matrix: SOIL
Received Date: 3/26/2022 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LRN**	
Chloride	66	60		mg/Kg	20	3/28/2022 2:14:47 PM	66432
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	18	9.5		mg/Kg	1	3/28/2022 11:23:25 AM	66426
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/28/2022 11:23:25 AM	66426
Surr: DNOP	98.5	51.1-141		%Rec	1	3/28/2022 11:23:25 AM	66426
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**	
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	3/26/2022 4:35:00 PM	A86770
Surr: BFB	119	37.7-212		%Rec	1	3/26/2022 4:35:00 PM	A86770
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**	
Benzene	ND	0.021		mg/Kg	1	3/26/2022 4:35:00 PM	B86770
Toluene	ND	0.043		mg/Kg	1	3/26/2022 4:35:00 PM	B86770
Ethylbenzene	ND	0.043		mg/Kg	1	3/26/2022 4:35:00 PM	B86770
Xylenes, Total	ND	0.086		mg/Kg	1	3/26/2022 4:35:00 PM	B86770
Surr: 4-Bromofluorobenzene	84.7	70-130		%Rec	1	3/26/2022 4:35:00 PM	B86770

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2203E13**

30-Mar-22

Client: ENSOLUM

Project: Lateral 2C 116

Sample ID: **MB-66432**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **66432**	RunNo: **86789**							
Prep Date: **3/28/2022**	Analysis Date: **3/28/2022**	SeqNo: **3065425**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-66432**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **66432**	RunNo: **86789**							
Prep Date: **3/28/2022**	Analysis Date: **3/28/2022**	SeqNo: **3065426**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.8	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2203E13**

30-Mar-22

Client: ENSOLUM

Project: Lateral 2C 116

Sample ID: **2203E13-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **S-1** Batch ID: **66426** RunNo: **86781**

Prep Date: **3/28/2022** Analysis Date: **3/28/2022** SeqNo: **3064416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	860	9.9	49.36	843.0	35.0	36.1	154			S
Surr: DNOP	4.8		4.936		97.9	51.1	141			

Sample ID: **2203E13-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **S-1** Batch ID: **66426** RunNo: **86781**

Prep Date: **3/28/2022** Analysis Date: **3/28/2022** SeqNo: **3064417** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	900	10	50.35	843.0	112	36.1	154	4.46	33.9	
Surr: DNOP	5.1		5.035		100	51.1	141	0	0	

Sample ID: **LCS-66426** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **66426** RunNo: **86781**

Prep Date: **3/28/2022** Analysis Date: **3/28/2022** SeqNo: **3064420** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.2	68.9	135			
Surr: DNOP	5.0		5.000		101	51.1	141			

Sample ID: **MB-66426** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **66426** RunNo: **86781**

Prep Date: **3/28/2022** Analysis Date: **3/28/2022** SeqNo: **3064421** 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	10		10.00		100	51.1	141			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2203E13**

30-Mar-22

Client: ENSOLUM

Project: Lateral 2C 116

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

Client ID: **LCSS** Batch ID: **A86770** RunNo: **86770**

Prep Date: Analysis Date: **3/26/2022** SeqNo: **3064050** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	113	72.3	137			
Surr: BFB	2300		1000		226	37.7	212			S

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

Client ID: **PBS** Batch ID: **A86770** RunNo: **86770**

Prep Date: Analysis Date: **3/26/2022** SeqNo: **3064051** 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		103	37.7	212			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2203E13**

30-Mar-22

Client: ENSOLUM

Project: Lateral 2C 116

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B86770**	RunNo: **86770**
Prep Date:	Analysis Date: **3/26/2022**	SeqNo: **3064068** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	92.1	80	120			
Toluene	0.95	0.050	1.000	0	94.5	80	120			
Ethylbenzene	0.95	0.050	1.000	0	94.6	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.6	80	120			
Surr: 4-Bromofluorobenzene	0.88		1.000		87.7	70	130			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B86770**	RunNo: **86770**
Prep Date:	Analysis Date: **3/26/2022**	SeqNo: **3064069** 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	0.86		1.000		86.3	70	130			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 2203E13 | RcptNo: 1

Received By: Tracy Casarrubias 3/26/2022 10:00:00 AM

Completed By: Tracy Casarrubias 3/26/2022 10:39:44 AM

Reviewed By: DAD 3/26/22

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? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
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? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted?

Checked by: TMC 3/26/22

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	5.9	Good	Yes			
2	4.1	Good	Yes			

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 606 S. Rio Grande, Suite A
Aztec, NM 87410

Phone #:

email or Fax#: Ksummers@ensolum.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 100% Same-Day

Project Name: Lateral 2C-116

Project #: 05A1226189

Project Manager: K. Summers

Sampler: L. Daniell

On Ice: ☒ Yes ☐ No

# of Coolers: 2

Cooler Temp (including CF): 5.9 @ 5.9 / 4.1 @ 4.1 (°C)

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2203E13	BTEX / ~~MTBE / TMBs~~ (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, NO3, NO2, PO4, SO4~~	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
3/25/22	10:00	S	S-1	1 4oz jar	Cool	001	X	X					X			
3/25/22	10:05	S	S-2	1 4oz jar	Cool	002	X	X					X			
3/25/22	10:10	S	S-3	1 4oz jar	Cool	003	X	X					X			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
3/25/22	1445				3/25/22	1445
3/26/22	1807				3/26/22	10:00

Remarks:
PM Tom Long
Pay key: RB21200
Non AFE: NS8968

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

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

April 06, 2022

Kyle Summers

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

RE: Lateral 2C-116 OrderNo.: 2204060

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 7 sample(s) on 4/2/2022 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2204060**
Date Reported: **4/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-4
Project: Lateral 2C-116
Collection Date: 4/1/2022 10:30:00 AM
Lab ID: 2204060-001 **Matrix:** SOIL **Received Date:** 4/2/2022 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	110	60		mg/Kg	20	4/4/2022 11:54:46 AM	66597
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**TOM**
Diesel Range Organics (DRO)	150	10		mg/Kg	1	4/4/2022 10:26:16 AM	66592
Motor Oil Range Organics (MRO)	54	50		mg/Kg	1	4/4/2022 10:26:16 AM	66592
Surr: DNOP	89.3	51.1-141		%Rec	1	4/4/2022 10:26:16 AM	66592
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**BRM**
Gasoline Range Organics (GRO)	43	3.7		mg/Kg	1	4/2/2022 6:21:00 PM	A86939
Surr: BFB	202	37.7-212		%Rec	1	4/2/2022 6:21:00 PM	A86939
EPA METHOD 8021B: VOLATILES						Analyst:	**BRM**
Benzene	ND	0.018		mg/Kg	1	4/2/2022 6:21:00 PM	C86939
Toluene	0.043	0.037		mg/Kg	1	4/2/2022 6:21:00 PM	C86939
Ethylbenzene	0.095	0.037		mg/Kg	1	4/2/2022 6:21:00 PM	C86939
Xylenes, Total	0.37	0.073		mg/Kg	1	4/2/2022 6:21:00 PM	C86939
Surr: 4-Bromofluorobenzene	123	70-130		%Rec	1	4/2/2022 6:21:00 PM	C86939

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204060**
Date Reported: **4/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-5
Project: Lateral 2C-116
Collection Date: 4/1/2022 10:35:00 AM
Lab ID: 2204060-002 **Matrix:** SOIL **Received Date:** 4/2/2022 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	110	60		mg/Kg	20	4/4/2022 12:07:11 PM	66597
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**TOM**
Diesel Range Organics (DRO)	53	8.5		mg/Kg	1	4/4/2022 10:40:18 AM	66592
Motor Oil Range Organics (MRO)	ND	42		mg/Kg	1	4/4/2022 10:40:18 AM	66592
Surr: DNOP	88.7	51.1-141		%Rec	1	4/4/2022 10:40:18 AM	66592
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**BRM**
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	4/2/2022 7:19:00 PM	A86939
Surr: BFB	112	37.7-212		%Rec	1	4/2/2022 7:19:00 PM	A86939
EPA METHOD 8021B: VOLATILES						Analyst:	**BRM**
Benzene	ND	0.020		mg/Kg	1	4/2/2022 7:19:00 PM	C86939
Toluene	ND	0.039		mg/Kg	1	4/2/2022 7:19:00 PM	C86939
Ethylbenzene	ND	0.039		mg/Kg	1	4/2/2022 7:19:00 PM	C86939
Xylenes, Total	ND	0.079		mg/Kg	1	4/2/2022 7:19:00 PM	C86939
Surr: 4-Bromofluorobenzene	83.0	70-130		%Rec	1	4/2/2022 7:19:00 PM	C86939

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204060**
Date Reported: **4/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-6
Project: Lateral 2C-116 **Collection Date:** 4/1/2022 10:40:00 AM
Lab ID: 2204060-003 **Matrix:** SOIL **Received Date:** 4/2/2022 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	200	60		mg/Kg	20	4/4/2022 12:19:35 PM	66597
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**TOM**
Diesel Range Organics (DRO)	360	9.3		mg/Kg	1	4/4/2022 10:54:24 AM	66592
Motor Oil Range Organics (MRO)	130	47		mg/Kg	1	4/4/2022 10:54:24 AM	66592
Surr: DNOP	83.9	51.1-141		%Rec	1	4/4/2022 10:54:24 AM	66592
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**BRM**
Gasoline Range Organics (GRO)	33	3.8		mg/Kg	1	4/2/2022 8:18:00 PM	A86939
Surr: BFB	213	37.7-212	S	%Rec	1	4/2/2022 8:18:00 PM	A86939
EPA METHOD 8021B: VOLATILES						Analyst:	**BRM**
Benzene	ND	0.019		mg/Kg	1	4/2/2022 8:18:00 PM	C86939
Toluene	ND	0.038		mg/Kg	1	4/2/2022 8:18:00 PM	C86939
Ethylbenzene	0.096	0.038		mg/Kg	1	4/2/2022 8:18:00 PM	C86939
Xylenes, Total	0.45	0.076		mg/Kg	1	4/2/2022 8:18:00 PM	C86939
Surr: 4-Bromofluorobenzene	143	70-130	S	%Rec	1	4/2/2022 8:18:00 PM	C86939

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

Qualifiers:

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

Analytical Report
Lab Order **2204060**
Date Reported: **4/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-7
Project: Lateral 2C-116
Collection Date: 4/1/2022 10:45:00 AM
Lab ID: 2204060-004 **Matrix:** SOIL **Received Date:** 4/2/2022 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	120	61		mg/Kg	20	4/4/2022 12:32:00 PM	66597
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**TOM**
Diesel Range Organics (DRO)	91	9.5		mg/Kg	1	4/4/2022 11:08:38 AM	66592
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/4/2022 11:08:38 AM	66592
Surr: DNOP	88.0	51.1-141		%Rec	1	4/4/2022 11:08:38 AM	66592
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**BRM**
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	4/2/2022 8:38:00 PM	A86939
Surr: BFB	115	37.7-212		%Rec	1	4/2/2022 8:38:00 PM	A86939
EPA METHOD 8021B: VOLATILES						Analyst:	**BRM**
Benzene	ND	0.019		mg/Kg	1	4/2/2022 8:38:00 PM	C86939
Toluene	ND	0.037		mg/Kg	1	4/2/2022 8:38:00 PM	C86939
Ethylbenzene	ND	0.037		mg/Kg	1	4/2/2022 8:38:00 PM	C86939
Xylenes, Total	ND	0.075		mg/Kg	1	4/2/2022 8:38:00 PM	C86939
Surr: 4-Bromofluorobenzene	81.3	70-130		%Rec	1	4/2/2022 8:38:00 PM	C86939

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204060**
Date Reported: **4/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-8
Project: Lateral 2C-116 **Collection Date:** 4/1/2022 10:50:00 AM
Lab ID: 2204060-005 **Matrix:** SOIL **Received Date:** 4/2/2022 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	94	60		mg/Kg	20	4/4/2022 12:44:25 PM	66597
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**TOM**
Diesel Range Organics (DRO)	9.8	9.0		mg/Kg	1	4/4/2022 11:22:47 AM	66592
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	4/4/2022 11:22:47 AM	66592
Surr: DNOP	85.8	51.1-141		%Rec	1	4/4/2022 11:22:47 AM	66592
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**BRM**
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	4/2/2022 8:58:00 PM	A86939
Surr: BFB	107	37.7-212		%Rec	1	4/2/2022 8:58:00 PM	A86939
EPA METHOD 8021B: VOLATILES						Analyst:	**BRM**
Benzene	ND	0.022		mg/Kg	1	4/2/2022 8:58:00 PM	C86939
Toluene	ND	0.043		mg/Kg	1	4/2/2022 8:58:00 PM	C86939
Ethylbenzene	ND	0.043		mg/Kg	1	4/2/2022 8:58:00 PM	C86939
Xylenes, Total	ND	0.087		mg/Kg	1	4/2/2022 8:58:00 PM	C86939
Surr: 4-Bromofluorobenzene	80.6	70-130		%Rec	1	4/2/2022 8:58:00 PM	C86939

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204060**
Date Reported: **4/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-9
Project: Lateral 2C-116
Collection Date: 4/1/2022 10:55:00 AM
Lab ID: 2204060-006 **Matrix:** SOIL **Received Date:** 4/2/2022 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	65	60		mg/Kg	20	4/4/2022 12:56:49 PM	66597
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**TOM**
Diesel Range Organics (DRO)	11	9.8		mg/Kg	1	4/4/2022 11:36:59 AM	66592
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/4/2022 11:36:59 AM	66592
Surr: DNOP	89.8	51.1-141		%Rec	1	4/4/2022 11:36:59 AM	66592
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**BRM**
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	4/2/2022 9:17:00 PM	A86939
Surr: BFB	107	37.7-212		%Rec	1	4/2/2022 9:17:00 PM	A86939
EPA METHOD 8021B: VOLATILES						Analyst:	**BRM**
Benzene	ND	0.022		mg/Kg	1	4/2/2022 9:17:00 PM	C86939
Toluene	ND	0.044		mg/Kg	1	4/2/2022 9:17:00 PM	C86939
Ethylbenzene	ND	0.044		mg/Kg	1	4/2/2022 9:17:00 PM	C86939
Xylenes, Total	ND	0.088		mg/Kg	1	4/2/2022 9:17:00 PM	C86939
Surr: 4-Bromofluorobenzene	79.8	70-130		%Rec	1	4/2/2022 9:17:00 PM	C86939

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204060**
Date Reported: **4/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-10
Project: Lateral 2C-116
Collection Date: 4/1/2022 11:00:00 AM
Lab ID: 2204060-007 **Matrix:** SOIL **Received Date:** 4/2/2022 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	ND	60		mg/Kg	20	4/4/2022 1:58:52 PM	66597
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**TOM**
Diesel Range Organics (DRO)	13	9.5		mg/Kg	1	4/4/2022 11:51:15 AM	66592
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/4/2022 11:51:15 AM	66592
Surr: DNOP	93.1	51.1-141		%Rec	1	4/4/2022 11:51:15 AM	66592
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**BRM**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/2/2022 9:37:00 PM	A86939
Surr: BFB	104	37.7-212		%Rec	1	4/2/2022 9:37:00 PM	A86939
EPA METHOD 8021B: VOLATILES						Analyst:	**BRM**
Benzene	ND	0.023		mg/Kg	1	4/2/2022 9:37:00 PM	C86939
Toluene	ND	0.047		mg/Kg	1	4/2/2022 9:37:00 PM	C86939
Ethylbenzene	ND	0.047		mg/Kg	1	4/2/2022 9:37:00 PM	C86939
Xylenes, Total	ND	0.093		mg/Kg	1	4/2/2022 9:37:00 PM	C86939
Surr: 4-Bromofluorobenzene	80.7	70-130		%Rec	1	4/2/2022 9:37:00 PM	C86939

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2204060**

06-Apr-22

Client: ENSOLUM

Project: Lateral 2C-116

Sample ID: **MB-66597** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **66597** RunNo: **86968**

Prep Date: **4/4/2022** Analysis Date: **4/4/2022** SeqNo: **3073845** 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-66597** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **66597** RunNo: **86968**

Prep Date: **4/4/2022** Analysis Date: **4/4/2022** SeqNo: **3073846** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	90.5	90	110			
Sulfate	28	1.5	30.00	0	93.4	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2204060**

06-Apr-22

Client: ENSOLUM

Project: Lateral 2C-116

Sample ID: **MB-66592**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **66592**	RunNo: **86952**
Prep Date: **4/4/2022**	Analysis Date: **4/4/2022**	SeqNo: **3072343** 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	8.7		10.00		86.6	51.1	141			

Sample ID: **LCS-66592**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **66592**	RunNo: **86952**
Prep Date: **4/4/2022**	Analysis Date: **4/4/2022**	SeqNo: **3072344** 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	86.8	68.9	135			
Surr: DNOP	4.0		5.000		80.9	51.1	141			

Sample ID: **2204060-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-4**	Batch ID: **66592**	RunNo: **86952**
Prep Date: **4/4/2022**	Analysis Date: **4/4/2022**	SeqNo: **3072995** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	180	9.1	45.75	148.1	71.5	36.1	154			
Surr: DNOP	3.6		4.575		79.3	51.1	141			

Sample ID: **2204060-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-4**	Batch ID: **66592**	RunNo: **86952**
Prep Date: **4/4/2022**	Analysis Date: **4/4/2022**	SeqNo: **3072996** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	180	9.3	46.43	148.1	63.4	36.1	154	1.81	33.9	
Surr: DNOP	3.7		4.643		79.5	51.1	141	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2204060**

06-Apr-22

Client: ENSOLUM

Project: Lateral 2C-116

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **A86939**	RunNo: **86939**
Prep Date:	Analysis Date: **4/2/2022**	SeqNo: **3071760** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	114	72.3	137			
Surr: BFB	2200		1000		225	37.7	212			S

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **A86939**	RunNo: **86939**
Prep Date:	Analysis Date: **4/2/2022**	SeqNo: **3071761** 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		105	37.7	212			

Sample ID: **2204060-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-4**	Batch ID: **A86939**	RunNo: **86939**
Prep Date:	Analysis Date: **4/2/2022**	SeqNo: **3071769** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	65	3.7	18.37	43.04	122	70	130			
Surr: BFB	2400		734.8		322	37.7	212			S

Sample ID: **2204060-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-4**	Batch ID: **A86939**	RunNo: **86939**
Prep Date:	Analysis Date: **4/2/2022**	SeqNo: **3071770** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	63	3.7	18.37	43.04	111	70	130	3.30	20	
Surr: BFB	2300		734.8		318	37.7	212	0	0	S

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2204060**

06-Apr-22

Client: ENSOLUM

Project: Lateral 2C-116

Sample ID: **100ng btex lcs** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **C86939** RunNo: **86939**

Prep Date: Analysis Date: **4/2/2022** SeqNo: **3071804** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.5	80	120			
Toluene	0.93	0.050	1.000	0	92.9	80	120			
Ethylbenzene	0.94	0.050	1.000	0	94.1	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.3	80	120			
Surr: 4-Bromofluorobenzene	0.86		1.000		86.2	70	130			

Sample ID: **mb** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **C86939** RunNo: **86939**

Prep Date: Analysis Date: **4/2/2022** SeqNo: **3071805** 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	0.86		1.000		85.9	70	130			

Sample ID: **2204060-002ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **S-5** Batch ID: **C86939** RunNo: **86939**

Prep Date: Analysis Date: **4/2/2022** SeqNo: **3071814** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.69	0.020	0.7886	0	87.6	68.8	120			
Toluene	0.71	0.039	0.7886	0	89.6	73.6	124			
Ethylbenzene	0.71	0.039	0.7886	0	90.5	72.7	129			
Xylenes, Total	2.1	0.079	2.366	0	90.5	75.7	126			
Surr: 4-Bromofluorobenzene	0.63		0.7886		79.4	70	130			

Sample ID: **2204060-002amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **S-5** Batch ID: **C86939** RunNo: **86939**

Prep Date: Analysis Date: **4/2/2022** SeqNo: **3071815** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.66	0.020	0.7886	0	83.1	68.8	120	5.19	20	
Toluene	0.67	0.039	0.7886	0	85.3	73.6	124	4.91	20	
Ethylbenzene	0.68	0.039	0.7886	0	86.4	72.7	129	4.59	20	
Xylenes, Total	2.0	0.079	2.366	0	86.2	75.7	126	4.78	20	
Surr: 4-Bromofluorobenzene	0.60		0.7886		75.9	70	130	0	0	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: ENSOLUM Work Order Number: 2204060 RcptNo: 1

Received By: Tracy Casarrubias 4/2/2022 10:00:00 AM

Completed By: Tracy Casarrubias 4/2/2022 11:07:41 AM

Reviewed By: 04/02/2022

Chain of Custody

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

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? (Note discrepancies on chain of custody) Yes ☑ No ☐ # of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐ Adjusted?
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐ Checked by: MC 4/2/22

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	0.9	Good	Yes			

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 606 S. Rio Grande, Suite A
Aztec, NM 87410

Phone #:

email or Fax#: KSummers@ensolum.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 100% Same Day

Project Name: Lateral 2C-116

Project #:

Project Manager: K. Summers

Sampler: L Daniell

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 0.9-0=0.9 (°C)

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2204060	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, NO3, NO2, PO4, SO4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
4/1/22	10:30	S	S-4	1402 jar	Cool	-1	X	X					X			
4/1/22	10:35	S	S-5			-2	X	X					X			
4/1/22	10:40	S	S-6			-3	X	X					X			
4/1/22	10:45	S	S-7			-4	X	X					X			
4/1/22	10:50	S	S-8			-5	X	X					X			
4/1/22	10:55	S	S-9			-6	X	X					X			
4/1/22	11:00	S	S-10	↓	↓	-7	X	X					X			

Analysis Request

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
4/1/22	1652				4/1/22	1652
4/1/22	1803	Christian Wall		Courier	4/2/22	10:00

Remarks: PM Tom Long
Pay key: RB21200
NonAFE # N589968
Same-Day

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

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

April 12, 2022

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

RE: Lateral 2C 116 OrderNo.: 2204192

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 8 sample(s) on 4/6/2022 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2204192**
Date Reported: **4/12/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-11
Project: Lateral 2C 116
Collection Date: 4/5/2022 10:30:00 AM
Lab ID: 2204192-001 **Matrix:** SOIL **Received Date:** 4/6/2022 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**JMT**
Chloride	71	60		mg/Kg	20	4/6/2022 1:51:26 PM	66668
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	32	9.5		mg/Kg	1	4/6/2022 10:44:31 AM	66631
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/6/2022 10:44:31 AM	66631
Surr: DNOP	91.8	51.1-141		%Rec	1	4/6/2022 10:44:31 AM	66631
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	17	D	mg/Kg	5	4/6/2022 9:28:32 AM	G87032
Surr: BFB	104	37.7-212	D	%Rec	5	4/6/2022 9:28:32 AM	G87032
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.086	D	mg/Kg	5	4/6/2022 9:28:32 AM	B87032
Toluene	ND	0.17	D	mg/Kg	5	4/6/2022 9:28:32 AM	B87032
Ethylbenzene	ND	0.17	D	mg/Kg	5	4/6/2022 9:28:32 AM	B87032
Xylenes, Total	ND	0.35	D	mg/Kg	5	4/6/2022 9:28:32 AM	B87032
Surr: 4-Bromofluorobenzene	98.1	70-130	D	%Rec	5	4/6/2022 9:28:32 AM	B87032

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204192**
Date Reported: **4/12/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-12
Project: Lateral 2C 116
Collection Date: 4/5/2022 10:35:00 AM
Lab ID: 2204192-002 **Matrix:** SOIL **Received Date:** 4/6/2022 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	110	60		mg/Kg	20	4/6/2022 2:03:50 PM	66668
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	16	9.8		mg/Kg	1	4/6/2022 10:54:57 AM	66631
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/6/2022 10:54:57 AM	66631
Surr: DNOP	90.3	51.1-141		%Rec	1	4/6/2022 10:54:57 AM	66631
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.4		mg/Kg	1	4/6/2022 10:18:13 AM	G87032
Surr: BFB	96.8	37.7-212		%Rec	1	4/6/2022 10:18:13 AM	G87032
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.027		mg/Kg	1	4/6/2022 10:18:13 AM	B87032
Toluene	ND	0.054		mg/Kg	1	4/6/2022 10:18:13 AM	B87032
Ethylbenzene	ND	0.054		mg/Kg	1	4/6/2022 10:18:13 AM	B87032
Xylenes, Total	ND	0.11		mg/Kg	1	4/6/2022 10:18:13 AM	B87032
Surr: 4-Bromofluorobenzene	99.6	70-130		%Rec	1	4/6/2022 10:18:13 AM	B87032

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204192**
Date Reported: **4/12/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-13
Project: Lateral 2C 116
Collection Date: 4/5/2022 10:40:00 AM
Lab ID: 2204192-003 **Matrix:** SOIL **Received Date:** 4/6/2022 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	92	60		mg/Kg	20	4/6/2022 2:16:15 PM	66668
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	11	10		mg/Kg	1	4/6/2022 11:05:24 AM	66631
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/6/2022 11:05:24 AM	66631
Surr: DNOP	83.5	51.1-141		%Rec	1	4/6/2022 11:05:24 AM	66631
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	4/6/2022 10:41:52 AM	G87032
Surr: BFB	102	37.7-212		%Rec	1	4/6/2022 10:41:52 AM	G87032
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.020		mg/Kg	1	4/6/2022 10:41:52 AM	B87032
Toluene	ND	0.039		mg/Kg	1	4/6/2022 10:41:52 AM	B87032
Ethylbenzene	ND	0.039		mg/Kg	1	4/6/2022 10:41:52 AM	B87032
Xylenes, Total	ND	0.079		mg/Kg	1	4/6/2022 10:41:52 AM	B87032
Surr: 4-Bromofluorobenzene	99.4	70-130		%Rec	1	4/6/2022 10:41:52 AM	B87032

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

Qualifiers:

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

Analytical Report
Lab Order **2204192**
Date Reported: **4/12/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-14
Project: Lateral 2C 116
Collection Date: 4/5/2022 10:45:00 AM
Lab ID: 2204192-004 **Matrix:** SOIL **Received Date:** 4/6/2022 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	170	60		mg/Kg	20	4/6/2022 2:28:39 PM	66668
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	74	9.4		mg/Kg	1	4/6/2022 11:15:52 AM	66631
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/6/2022 11:15:52 AM	66631
Surr: DNOP	88.8	51.1-141		%Rec	1	4/6/2022 11:15:52 AM	66631
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	4/6/2022 11:05:35 AM	G87032
Surr: BFB	128	37.7-212		%Rec	1	4/6/2022 11:05:35 AM	G87032
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.017		mg/Kg	1	4/6/2022 11:05:35 AM	B87032
Toluene	ND	0.034		mg/Kg	1	4/6/2022 11:05:35 AM	B87032
Ethylbenzene	ND	0.034		mg/Kg	1	4/6/2022 11:05:35 AM	B87032
Xylenes, Total	0.17	0.068		mg/Kg	1	4/6/2022 11:05:35 AM	B87032
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	4/6/2022 11:05:35 AM	B87032

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

Qualifiers:

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

Analytical Report
Lab Order **2204192**
Date Reported: **4/12/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-15
Project: Lateral 2C 116
Collection Date: 4/5/2022 10:50:00 AM
Lab ID: 2204192-005 **Matrix:** SOIL **Received Date:** 4/6/2022 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	120	60		mg/Kg	20	4/6/2022 2:41:04 PM	66668
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	110	10		mg/Kg	1	4/6/2022 11:26:21 AM	66631
Motor Oil Range Organics (MRO)	56	50		mg/Kg	1	4/6/2022 11:26:21 AM	66631
Surr: DNOP	92.2	51.1-141		%Rec	1	4/6/2022 11:26:21 AM	66631
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	4/6/2022 11:29:17 AM	G87032
Surr: BFB	101	37.7-212		%Rec	1	4/6/2022 11:29:17 AM	G87032
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.018		mg/Kg	1	4/6/2022 11:29:17 AM	B87032
Toluene	ND	0.036		mg/Kg	1	4/6/2022 11:29:17 AM	B87032
Ethylbenzene	ND	0.036		mg/Kg	1	4/6/2022 11:29:17 AM	B87032
Xylenes, Total	ND	0.073		mg/Kg	1	4/6/2022 11:29:17 AM	B87032
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	4/6/2022 11:29:17 AM	B87032

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

Qualifiers:

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

Analytical Report
Lab Order **2204192**
Date Reported: **4/12/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-16
Project: Lateral 2C 116
Collection Date: 4/5/2022 10:55:00 AM
Lab ID: 2204192-006 **Matrix:** SOIL **Received Date:** 4/6/2022 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	61		mg/Kg	20	4/6/2022 2:53:28 PM	66668
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	28	10		mg/Kg	1	4/6/2022 11:36:51 AM	66631
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/6/2022 11:36:51 AM	66631
Surr: DNOP	88.8	51.1-141		%Rec	1	4/6/2022 11:36:51 AM	66631
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	4/6/2022 11:53:03 AM	G87032
Surr: BFB	117	37.7-212		%Rec	1	4/6/2022 11:53:03 AM	G87032
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.022		mg/Kg	1	4/6/2022 11:53:03 AM	B87032
Toluene	ND	0.043		mg/Kg	1	4/6/2022 11:53:03 AM	B87032
Ethylbenzene	ND	0.043		mg/Kg	1	4/6/2022 11:53:03 AM	B87032
Xylenes, Total	ND	0.087		mg/Kg	1	4/6/2022 11:53:03 AM	B87032
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	4/6/2022 11:53:03 AM	B87032

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

Qualifiers:

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

Analytical Report
Lab Order **2204192**
Date Reported: **4/12/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-17
Project: Lateral 2C 116
Collection Date: 4/5/2022 11:00:00 AM
Lab ID: 2204192-007 **Matrix:** SOIL **Received Date:** 4/6/2022 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**JMT**
Chloride	ND	61		mg/Kg	20	4/6/2022 3:05:52 PM	66668
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	23	9.9		mg/Kg	1	4/6/2022 11:47:24 AM	66631
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/6/2022 11:47:24 AM	66631
Surr: DNOP	94.8	51.1-141		%Rec	1	4/6/2022 11:47:24 AM	66631
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	4/6/2022 12:16:45 PM	G87032
Surr: BFB	111	37.7-212		%Rec	1	4/6/2022 12:16:45 PM	G87032
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.020		mg/Kg	1	4/6/2022 12:16:45 PM	B87032
Toluene	ND	0.039		mg/Kg	1	4/6/2022 12:16:45 PM	B87032
Ethylbenzene	ND	0.039		mg/Kg	1	4/6/2022 12:16:45 PM	B87032
Xylenes, Total	ND	0.079		mg/Kg	1	4/6/2022 12:16:45 PM	B87032
Surr: 4-Bromofluorobenzene	99.3	70-130		%Rec	1	4/6/2022 12:16:45 PM	B87032

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204192**
Date Reported: **4/12/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-18
Project: Lateral 2C 116
Collection Date: 4/5/2022 11:05:00 AM
Lab ID: 2204192-008 **Matrix:** SOIL **Received Date:** 4/6/2022 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/6/2022 3:18:16 PM	66668
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	16	9.7		mg/Kg	1	4/6/2022 11:58:00 AM	66631
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/6/2022 11:58:00 AM	66631
Surr: DNOP	89.6	51.1-141		%Rec	1	4/6/2022 11:58:00 AM	66631
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	4/6/2022 12:40:23 PM	G87032
Surr: BFB	110	37.7-212		%Rec	1	4/6/2022 12:40:23 PM	G87032
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.022		mg/Kg	1	4/6/2022 12:40:23 PM	B87032
Toluene	ND	0.045		mg/Kg	1	4/6/2022 12:40:23 PM	B87032
Ethylbenzene	ND	0.045		mg/Kg	1	4/6/2022 12:40:23 PM	B87032
Xylenes, Total	ND	0.090		mg/Kg	1	4/6/2022 12:40:23 PM	B87032
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	4/6/2022 12:40:23 PM	B87032

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2204192**

12-Apr-22

Client: ENSOLUM

Project: Lateral 2C 116

Sample ID: **MB-66668**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **66668**	RunNo: **87045**							
Prep Date: **4/6/2022**	Analysis Date: **4/6/2022**	SeqNo: **3077511**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-66668**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **66668**	RunNo: **87045**							
Prep Date: **4/6/2022**	Analysis Date: **4/6/2022**	SeqNo: **3077512**	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2204192**

12-Apr-22

Client: ENSOLUM

Project: Lateral 2C 116

Sample ID: **2204192-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **S-11** Batch ID: **66631** RunNo: **87034**

Prep Date: **4/6/2022** Analysis Date: **4/6/2022** SeqNo: **3075745** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	65	9.2	45.87	32.15	71.0	36.1	154			
Surr: DNOP	4.0		4.587		87.7	51.1	141			

Sample ID: **2204192-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **S-11** Batch ID: **66631** RunNo: **87034**

Prep Date: **4/6/2022** Analysis Date: **4/6/2022** SeqNo: **3075746** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	74	9.7	48.26	32.15	86.4	36.1	154	13.2	33.9	
Surr: DNOP	4.3		4.826		89.3	51.1	141	0	0	

Sample ID: **LCS-66631** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **66631** RunNo: **87034**

Prep Date: **4/6/2022** Analysis Date: **4/6/2022** SeqNo: **3075755** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.3	68.9	135			
Surr: DNOP	4.3		5.000		86.2	51.1	141			

Sample ID: **MB-66631** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **66631** RunNo: **87034**

Prep Date: **4/6/2022** Analysis Date: **4/6/2022** SeqNo: **3075756** 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		85.1	51.1	141			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2204192**

12-Apr-22

Client: ENSOLUM

Project: Lateral 2C 116

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **G87032**	RunNo: **87032**
Prep Date:	Analysis Date: **4/6/2022**	SeqNo: **3076517** 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	990		1000		98.7	37.7	212			

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **G87032**	RunNo: **87032**
Prep Date:	Analysis Date: **4/6/2022**	SeqNo: **3076523** 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	92.7	72.3	137			
Surr: BFB	1900		1000		194	37.7	212			

Sample ID: **2204192-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-11**	Batch ID: **G87032**	RunNo: **87032**
Prep Date:	Analysis Date: **4/6/2022**	SeqNo: **3076535** 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	70	130			
Surr: BFB	2100		1000		212	37.7	212			

Sample ID: **2204192-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-11**	Batch ID: **G87032**	RunNo: **87032**
Prep Date:	Analysis Date: **4/6/2022**	SeqNo: **3076536** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	31	5.0	25.00	0	122	70	130	15.1	20	
Surr: BFB	2300		1000		232	37.7	212	0	0	S

Sample ID: **mb-66652**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **66652**	RunNo: **87032**
Prep Date: **4/5/2022**	Analysis Date: **4/6/2022**	SeqNo: **3076537** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	960		1000		96.1	37.7	212			

Sample ID: **lcs-66652**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **66652**	RunNo: **87032**
Prep Date: **4/5/2022**	Analysis Date: **4/6/2022**	SeqNo: **3076538** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	2000		1000		203	37.7	212			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2204192**

12-Apr-22

Client: ENSOLUM

Project: Lateral 2C 116

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B87032**	RunNo: **87032**
Prep Date:	Analysis Date: **4/6/2022**	SeqNo: **3076570** 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	0.99		1.000		99.0	70	130			

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B87032**	RunNo: **87032**
Prep Date:	Analysis Date: **4/6/2022**	SeqNo: **3076571** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	89.1	80	120			
Toluene	0.92	0.050	1.000	0	92.2	80	120			
Ethylbenzene	0.93	0.050	1.000	0	93.1	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.0	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	70	130			

Sample ID: **2204192-002ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **S-12**	Batch ID: **B87032**	RunNo: **87032**
Prep Date:	Analysis Date: **4/6/2022**	SeqNo: **3076581** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.025	1.000	0	87.4	68.8	120			
Toluene	0.91	0.050	1.000	0	90.8	73.6	124			
Ethylbenzene	0.92	0.050	1.000	0	92.2	72.7	129			
Xylenes, Total	2.8	0.10	3.000	0.02105	92.2	75.7	126			
Surr: 4-Bromofluorobenzene	0.99		1.000		98.6	70	130			

Sample ID: **2204192-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **S-12**	Batch ID: **B87032**	RunNo: **87032**
Prep Date:	Analysis Date: **4/6/2022**	SeqNo: **3076582** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.025	1.000	0	86.7	68.8	120	0.792	20	
Toluene	0.89	0.050	1.000	0	89.4	73.6	124	1.62	20	
Ethylbenzene	0.91	0.050	1.000	0	91.0	72.7	129	1.27	20	
Xylenes, Total	2.7	0.10	3.000	0.02105	90.6	75.7	126	1.77	20	
Surr: 4-Bromofluorobenzene	1.0		1.000		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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2204192**

12-Apr-22

Client: ENSOLUM

Project: Lateral 2C 116

Sample ID: **mb-66652**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **66652**	RunNo: **87032**
Prep Date: **4/5/2022**	Analysis Date: **4/6/2022**	SeqNo: **3076583** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.99		1.000		98.9	70	130			

Sample ID: **LCS-66652**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **66652**	RunNo: **87032**
Prep Date: **4/5/2022**	Analysis Date: **4/6/2022**	SeqNo: **3076584** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: ENSOLUM Work Order Number: 2204192 RcptNo: 1

Received By: Tracy Casarrubias 4/6/2022 7:30:00 AM

Completed By: Tracy Casarrubias 4/6/2022 7:54:13 AM

Reviewed By: SA 4/5/22

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? (Note discrepancies on chain of custody) Yes ☑ No ☐ # of preserved bottles checked for pH:
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐ (<2 or >12 unless noted)
13. Is it clear what analyses were requested? Yes ☑ No ☐ Adjusted?
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐ Checked by: JR 4/6/22

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	3.9	Good	Yes			
2	4.5	Good	Yes			

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 606 S. Rio Grande, Suite A
Aztec, NM 87410

Phone #:

email or Fax#: k_summers@ensolum.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 100% Same-Day

Project Name: Lateral 2C-116

Project #:

Project Manager: K. Summers

Sampler: L. Daniell

On Ice: ☑ Yes ☐ No

# of Coolers: 2

Cooler Temp(including CF): 4.0 -0.1 = 3.9 (°C)
4.6 -0.1 4.5 °C

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2204192	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)
4/5/22	10:30	S	S-11	14oz jar	Cool	001	X	X					X			
4/5/22	10:35	S	S-12			002	X	X					X			
4/5/22	10:40	S	S-13			003	X	X					X			
4/5/22	10:45	S	S-14			004	X	X					X			
4/5/22	10:50	S	~~S-15~~ S-15			005	X	X					X			
4/5/22	10:55	S	S-16			006	X	X					X			
4/5/22	11:00	S	S-17			007	X	X					X			
4/5/22	11:05	S	S-18			008	X	X					X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
4/5/22	1449				4/5/22	1449
4/5/22	1812				4/6/22	7:30

Remarks: PM tom Long
Pay key: RB21200
Non AFE # N58968
Same Day

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.

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 226844

CONDITIONS

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 226844
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	6/13/2023